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KEY TO ABBREVIATIONS:
N = NAVIGATION
FRM = FLOOD RISK MANAGEMENT
RC = RECREATION
H = HYDROPOWER
EN = ENVIRONMENT
WS = WATER SUPPLY
HMTF = HARBOR MAINTENANCE TRUST FUND

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OPERATION AND MAINTENANCE

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1/ This activity receives funding from both the Operation and Maintenance account and the Harbor Maintenance Trust Fund.

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ALABAMA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Alabama River Lakes, AL

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: This multiple-purpose project is part of the Alabama-Coosa-Tallapoosa (ACT) River System and includes a 9-foot by 200-foot low use, inland navigation channel that extends from the mouth of the Alabama River, 45 miles north of Mobile, Alabama for 300 miles northeast to Montgomery, AL where it connects with the Coosa River. The Coosa River extends northeast another 286 miles to a point near Rome, Georgia. This project includes funding for three projects located on the Alabama River: Claiborne, Millers Ferry and Robert F. Henry Locks and Dams. Millers Ferry and Robert F. Henry both include hydropower.

FISCAL YEAR 2019 ALLOCATION: $17,338,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work including dam safety formal report, tainter gate mechanical system rehabilitation, replacement of failing septic system, and cost savings measures to install standard electric meters.

FISCAL YEAR 2020 ALLOCATION: $14,123,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work including dam safety annual report, replacement of outdoor lighting with LED lights, an operational conditional assessment, boundary monumentation and rectification, pest and invasive species management and updating the Alabama-Coosa-Tallapoosa water control manuals.

BUDGETED AMOUNT FOR FY 2021: M: $6,922,000 **O:** $6,083,000 **T:** $13,005,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $605,100, of which $360,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $294,700 of which $294,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2,917,500 of which $245,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $8,225,700 of which $736,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a comprehensive hydroelectric review.

EN: $962,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Two hydropower plants are on the project with a total hydropower capacity of 172,000 kilowatts. As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD - 45%, NAV - 22%, FRM - 18%, and REC - 15%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,800,000. There was an additional $5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Black Warrior and Tombigbee (BWT) Rivers, AL

AUTHORIZATION: The project was authorized by various River and Harbor Acts, 1884-1986. Replacement of obsolete structures was authorized by the 1909 River and Harbor Act.

LOCATION AND DESCRIPTION: The high use, inland navigation project includes a 9 foot by 200 foot channel from Mobile Harbor, north for 426 miles, connecting the Port of Mobile with the industrial areas of Birmingham, Alabama, and serving as the corridor from the Tennessee-Tombigbee Waterway to the Gulf of Mexico and includes six locks, dams and reservoirs.

FISCAL YEAR 2019 ALLOCATION: $25,902,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging, placement area maintenance, rehabilitate failing shower house, and replace Coffeeville lock motor control centers.

FISCAL YEAR 2020 ALLOCATION: $28,193,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging, placement area maintenance, dewatering and inspections of locks and cost savings measures to upgrade outdoor lighting.

BUDGETED AMOUNT FOR FY 2021: M: $10,477,000 **O:** $12,789,000 **T:** $23,266,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $19,267,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: $3,355,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including sewer system replacement.

H: N/A

EN: $644,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: This waterway is extremely important for the shipment of coal as an export and to support several coal-fired electric generating plants in the southeastern United States. The waterway also provides critical transportation of crude oil to an oil refinery and transportation of ore and steel for foundries.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $174,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Gulf Intracoastal Waterway (GIWW), AL

AUTHORIZATION: Authorized House Document 670, 61st Congress, 2nd Session, Rivers and Harbors Committee, 1910, as last amended by P.L. 89-790, River and Harbor Act of 1966.

LOCATION AND DESCRIPTION: The Mobile District's portion of the GIWW extends from the Louisiana and Mississippi state line to Apalachee Bay, Florida, providing a 12 foot by 150-foot channel from Louisiana to Mobile Bay, Alabama and a 12 foot by 125-foot channel from Mobile Bay to Apalachee Bay, Florida. It is a high use, coastal waterway project.

FISCAL YEAR 2019 ALLOCATION: $7,687,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging, placement area maintenance, snag removal, levee drainage structure replacements and dredge material management plan study.

FISCAL YEAR 2020 ALLOCATION: $7,739,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging, snag removal, levee drainage structure replacements, dredging plans and specifications, West Bay disposal area maintenance and Hurricane Michael debris removal.

BUDGETED AMOUNT FOR FY 2021: M: $4,365,000 **O:** $1,240,000 **T:** $5,605,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $5,605,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Eglin, Hurlburt and Tyndall Air Force Bases receive all of their jet fuel by way of this waterway. Additionally, all of the fuel terminals and coal-fired power plants along the Gulf Coast receive their shipments by barge through this waterway. The project supports major barge traffic providing the east/west transit route along the northern Gulf Coast for coal, petroleum products, chemicals, wood products and heavy industrial components.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $500,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tennessee-Tombigbee Waterway - Wildlife Mitigation, AL and MS

AUTHORIZATION: Water Resources Development Acts of 1986 and 1992

LOCATION AND DESCRIPTION: The high use, inland navigation project extends from Demopolis, Alabama to the Tennessee River at the common boundary of Alabama, Mississippi and Tennessee. The project consists of three major components: (1) acquisition and management of 88,000 acres of separable mitigation lands at specific locations in Alabama and Mississippi; (2) management of an additional 93,000 acres of existing Corps lands at specific locations in Alabama and Mississippi; and (3) implementation of an initial development program on 181,000 acres of lands comprising the mitigation program. Most of the mitigation lands are organized into contiguous management units distributed between 10 wildlife management areas (seven in Mississippi and three in Alabama). The State wildlife management agencies are responsible for the management of all but 50,000 acres that are managed by the Corps.

FISCAL YEAR 2019 ALLOCATION: $1,782,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,782,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $1,800,000 **T:** $1,800,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $1,800,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Funding will support oversight and management by state wildlife agencies in Mississippi and Alabama for a total of 10 Wildlife Management Areas (WMAs) – seven WMAs in the state of Mississippi and three WMAs in the state of Alabama, as mandated by the Water Resources Development Act of 1986. These WMAs promote long-term public access, use, conservation and management of natural resources, particularly wildlife, consistent with the Corps mission mandate for natural resources management.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tennessee-Tombigbee Waterway (TTWW), AL and MS

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The high use, inland navigation project extends from Demopolis, Alabama to the Tennessee River at the common boundary of Alabama, Mississippi and Tennessee. The project includes a 234-mile navigation channel varying from 9-12 feet by 300 feet, 10 locks and dams, and numerous recreation areas.

FISCAL YEAR 2019 ALLOCATION: $38,623,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging, placement are maintenance, dam safety inspection reports, disposal area evaluation, dewatering of Whitten lock and cost savings measures work to install electric meters.

FISCAL YEAR 2020 ALLOCATION: $43,324,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging, dam safety inspections, dewatering, inspection and repair of Heflin Lock, temporary office space lease, replacement of project office and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $12,446,000 **O:** $16,434,000 **T:** $28,880,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $22,832,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging, placement area maintenance, operations condition assessment, dam safety inspections and bridge inspection.

FRM: N/A

RC: $4,738,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an operation condition assessment and sewer system partial replacement.

H: N/A

EN: $1,310,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project includes seven Class A campgrounds, three visitor centers, one historical landmark, forty boat ramps, nine large public-use areas, 72,500 acres of project wildlife mitigation land, two office buildings and ten locks and dams.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,493,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Walter F. George Lock and Dam, AL and GA

AUTHORIZATION: Rivers and Harbors Act of 1945, as last amended by Water Resources Development Act of 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: The multiple-purpose project is located at mile 75.2 on the Chattahoochee River, 1.5 miles north of Ft. Gaines, Georgia, in Clay, Quitman, and Stewart Counties, Georgia and Henry, Barbour, and Russell Counties, Alabama. The project includes a hydroelectric powerhouse, 22 recreation areas, a navigation lock and a 46,000-acre reservoir with 640 miles of shoreline.

FISCAL YEAR 2019 ALLOCATION: $8,838,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $8,840,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Fund are also being used for specific work activities including repair of potable water system and environmental compliance.

BUDGETED AMOUNT FOR FY 2021: M: $3,712,000 **O:** $4,945,000 **T:** $8,657,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $803,100 of which $680,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Fund will also be used for specific work activities including operations condition assessment.

FRM: N/A

RC: $2,238,000 – Funds will be used for commonly performed O&M work.

H: $4,540,900 of which $793,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,075,000 - Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD - 54% and NAV - 46%.The project has a hydropower capacity of 160,000 kilowatts.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,082,000. There was an additional $27,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

ALASKA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Chena River Lakes Flood Control Project, North Pole, AK

AUTHORIZATION: Flood Control Act of 1968, House Document 148, 90th Congress, 2nd Session.

LOCATION AND DESCRIPTION: The Chena River Lakes Flood Control Project is located in North Pole, Alaska approximately 17 miles east of Fairbanks, Alaska. The 20,000 acre project consists of a 7.5 mile long rock-filled dam that provides flood protection to Fairbanks and adjacent areas, including Fort Wainwright, from recurring flood damage from the Chena River.

FISCAL YEAR 2019 ALLOCATION: $6,230,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacement of the control works primary power line.

FISCAL YEAR 2020 ALLOCATION: $9,069,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities to include relocating the debris baling area and constructing a baling deck, dam outlet channel rock repairs, south seepage collector channel, asphalt roads repairs, and improve seepage monitoring for Dam Safety Interim Risk Reduction measures.

BUDGETED AMOUNT FOR FY 2021: M: $1,750,000 **O:** $4,052,000 **T:** $5,802,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $5,098,000 – Funds will be used for commonly performed (O&M) work. Funds will also be used for specific work activities to include improving relief well capacity.

RC: $329,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $375,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Operation of the dam at the minimum level of service prevents downstream flooding on average about once each year with average annual damages prevented of $9,231,000.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $179,000. There was an additional $23,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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ARIZONA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Alamo Lake, AZ

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located 25 miles north of the city of Wenden and 120 miles northwest of the city of Phoenix. It consists of an earthen-fill dam, outlet works, spillway, service roads, reservoir, and recreation area.

FISCAL YEAR 2019 ALLOCATION: $4,009,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including hydraulic system flushing and repairs to outlet conduit and bulkhead system.

FISCAL YEAR 2020 ALLOCATION: $2,876,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a Water Control Plan update - final phase and to perform a periodic assessment on Alamo Dam.

BUDGETED AMOUNT FOR FY 2021: M: $3,250,000 **O:** $1,906,000 **T:** $5,156,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $4,876,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including Maintenance Facility Electrical Modernization.

RC: $70,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $210,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $28,000. There was an additional $53,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Painted Rock Dam, AZ

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: The project is 20 miles northwest of the city of Gila Bend and 120 miles southwest of the city of Phoenix. The authorized project consists of an earthen-fill dam, a saddle dike, outlet works, a spillway, a pilot channel reservoir, and a recreation area, which is no longer in use.

FISCAL YEAR 2019 ALLOCATION: $3,055,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including bridge inspections, analysis of the outlet channel rock slope, dam control house sewage pipe repair and upgrade operator homes and compound.

FISCAL YEAR 2020 ALLOCATION: $1,153,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a hydraulic steel structure inspection and a bridge inspection.

BUDGETED AMOUNT FOR FY 2021: M: $3,475,000 **O:** $1,095,000 **T:** $4,570,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $4,450,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including periodic assessment, install guard rails along dam crest and access road, and dam electrical modernization.

RC: N/A

H: N/A

EN: $120,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The State of Arizona has closed the recreation area since 2009 because the water flowing into the reservoir is contaminated with pesticide runoff.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $30,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Whitlow Ranch Dam, AZ

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Whitlow Ranch Dam is located 50 miles southeast of the city of Phoenix in the County of Pima. It consists of an earthen-fill dam, outlet works, service roads, and a reservoir.

FISCAL YEAR 2019 ALLOCATION: $926,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including paving of access roads and dam crest and studies and surveys.

FISCAL YEAR 2020 ALLOCATION: $553,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $320,000 **O:** $497,000 **T:** $817,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $722,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $95,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Since construction of the Dam in 1960, Phoenix and the surrounding area have experienced a major population increase, with development pushing further into the desert nearing the un-gated flood control structure.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $59,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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ARKANSAS

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Beaver Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685) and the Water Supply Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: The project is located east of Rogers, Arkansas in Benton, Carroll, Madison, and Washington Counties. Beaver Lake is a multiple-purpose project located in the White River Basin. The project contains two 56 MW hydropower generator units.

FISCAL YEAR 2019 ALLOCATION: $9,553,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to replace handrails on tainter gate landings and to conduct a power review.

FISCAL YEAR 2020 ALLOCATION: $11,725,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including acquisition of land for lake operations, replacing trunnion access ladders, pest and invasive species management, real estate boundary monumentation and rectification and resolution of real estate encroachments.

BUDGETED AMOUNT FOR FY 2021: M: $2,731,000 **O:** $6,883,000 **T:** $9,614,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,557,600, of which $217,600 is allocated for Joint use activities – Funds will used for commonly performed O&M work.

RC: $2,900,000 – Funds will be used for commonly performed O&M work.

H: $3,070,600, of which $631,600 is allocated for Joint use activities – Funds will be used for commonly performed O&M work.

EN: $2,059,800, of which $81,800 is allocated for Joint use activities – Funds will be used for commonly performed O&M work.

WS: $26,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 68%, FRM – 23%, and ENS – 9%. Beaver Lake is estimated to have prevented $120 million in flood damages since its construction. Hydropower generation in FY 2018 was 137,000 megawatt-hours, serving 13,000 homes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,160,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Blakely Mountain Dam, Lake Ouachita, AR

AUTHORIZATION: Flood Control Act of 1944, Section 10

LOCATION AND DESCRIPTION: Blakely Mountain Dam, Lake Ouachita is located on the Ouachita River in Garland and Montgomery Counties, Arkansas, west of Hot Springs, Arkansas. The project consists of an earth-fill dam, which provides flood control, recreation, water supply, and hydropower, and includes natural resources management. Storage capacity of the lake is 2,768,000 acre-feet. The power plant has a generating capacity of 75,000 kilowatts. Twenty campgrounds and recreation areas are located on the project.

FISCAL YEAR 2019 ALLOCATION: $9,325,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also being used for specific work activities including plans and specs to upgrade station service heating and cooling transformers, hydraulic steel of hydropower components, and management of water supply agreements.

FISCAL YEAR 2020 ALLOCATION: $8,308,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including pest and invasive species management, real estate boundary monumentation and rectification, replacing deteriorated shower building piping, replacing Little Fir recreation area wastewater treatment plant, and replacing Little Fir and Twin Creek primary electrical systems.

BUDGETED AMOUNT FOR FY 2021: M: $1,342,000 **O:** $7,043,000 **T:** $8,385,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,322,900, of which $195,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2,781,000 – Funds will be used for commonly performed O&M work.

H: $3,759,100, of which $207,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $509,000 – Funds will be used for commonly performed O&M work.

WS: $13,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities shared between business lines as follows: HYD – 51% and FRM – 49%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Blue Mountain Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: The project is near Waveland, Arkansas in Logan and Yell Counties. Blue Mountain Lake is located in the Arkansas River Basin on the Petit Jean River. The primary purpose of the project is flood risk management. The project also offers excellent recreational opportunities.

FISCAL YEAR 2019 ALLOCATION: $1,851,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing security gates.

FISCAL YEAR 2020 ALLOCATION: $1,744,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a stilling basin inspection before periodic assessment.

BUDGETED AMOUNT FOR FY 2021: M: $1,148,000 **O:** $1,801,000 **T:** $2,949,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,237,000 – Funds will be used for commonly performed O&M work.

RC: $444,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $258,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Blue Mountain Lake is estimated to have prevented $57 million in flood damages since its construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $56,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Bull Shoals Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L 75-685)

LOCATION AND DESCRIPTION: Bull Shoals Lake is located in Marion, Baxter, and Boone Counties of Arkansas and Ozark and Taney Counties of Missouri. Bull Shoals is a multi-purpose project with authorized purposes for hydropower and flood risk management. The project contains eight hydropower generating units with a total installed capacity of 340 megawatts.

FISCAL YEAR 2019 ALLOCATION: $7,683,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including an arc flash analysis.

FISCAL YEAR 2020 ALLOCATION: $8,891,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including zebra mussel mitigation.

BUDGETED AMOUNT FOR FY 2021: M: $1,994,000 **O:** $6,354,000 **T:** $8,348,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,706,400, of which $530,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,695,000 – Funds will be used for commonly performed O&M work.

H: $4,077,600, of which $511,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work

EN: $857,000 – Funds will be used for commonly performed O&M work.

WS: $12,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities shared between business lines as follows: HYD – 49% and FRM – 51%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $407,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: DeGray Lake, AR

AUTHORIZATION: Rivers and Harbors Act of 1950, Section 101 and Water Supply Act of 1958, as amended by Federal Water Pollution Control Act of 1961.

LOCATION AND DESCRIPTION: DeGray Lake is located on the Caddo River in Clark and Hot Spring counties, AR, northwest of Arkadelphia, AR. The project consists of an earth-fill dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management.

FISCAL YEAR 2019 ALLOCATION: $7,980,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including removal of vegetation from dam and structures, paving channel roads and placement of expansion joints.

FISCAL YEAR 2020 ALLOCATION: $7,314,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including plans and specifications for Lightning Arrestors and Surge Capacitors Upgrade/Replacement and to replace the sewage treatment facilities at the Arlie Moore campground.

BUDGETED AMOUNT FOR FY 2021: M: $2,237,000 **O:** $4,368,000 **T:** $6,605,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $4,600, of which $4,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $815,100, of which $51,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2,934,800, of which $60,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $2,460,900, of which $23,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $389,600, of which $45,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: REC-33%, FRM-27%, EN-24%, HYD-13%, and NAV-3%. There is a re-regulating pool below the main dam for water supply storage and pumped-storage power generation. Storage capacity of the lake is 495,100 acre-feet. Eighteen campgrounds and recreation areas are located on the project.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: DeQueen Lake, AR

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: DeQueen Lake is located on the Rolling Fork River, in Sevier County, four miles northwest of DeQueen, Arkansas. The project's authorized purposes are flood risk management, water supply, recreation, and environmental stewardship.

FISCAL YEAR 2019 ALLOCATION: $1,555,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to update the water control manual.

FISCAL YEAR 2020 ALLOCATION: $1,588,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to conduct table top emergency exercise and to update the water control manual.

BUDGETED AMOUNT FOR FY 2021: M: $1,616,000 **O:** $1,309,000 **T:** $2,925,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,306,000 – Funds will be used for commonly performed O&M work.

RC: $500,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $107,000 – Funds will be used for commonly performed O&M work.

WS: $12,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: DeQueen Lake is estimated to have prevented $24 million in cumulative flood damages since its construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $22,000. There was an additional $4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Dierks Lake, AR

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Dierks Lake is located in Dierks, Arkansas, on the Saline River in Howard and Sevier Counties. The project's authorized purposes are flood risk management, water supply, recreation, and environmental stewardship.

FISCAL YEAR 2019 ALLOCATION: $1,491,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to install a manhole for access to the toe drain.

FISCAL YEAR 2020 ALLOCATION: $1,445,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M. Funds are also being used for specific work activities including to conduct a dam safety table top emergency exercise, cultural resource site monitoring and protection; pest and invasive species management; and, updating the water control manual.

BUDGETED AMOUNT FOR FY 2021: M: $1,295,000 **O:** $1,245,000 **T:** $2,540,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,907,000 – Funds will be used for commonly performed O&M work.

RC: $506,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $115,000 – Funds will be used for commonly performed O&M work.

WS: $12,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Dierks Lake is estimated to have prevented $15 million in cumulative flood damages since its construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $6,000. There was an additional $1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Gillham Lake, AR

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Gillham Lake is in Howard County six miles northeast of Gillham, Arkansas and located on the Cossatot River. The project's primary purposes are flood risk management, water supply, recreation, and environmental stewardship.

FISCAL YEAR 2019 ALLOCATION: $1,392,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation maintenance (O&M) work. Funds were also used for specific work activities including to update the water control manual.

FISCAL YEAR 2020 ALLOCATION: $2,545,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repair emergency and service slide gates, conduct dam safety tabletop emergency exercises, clean and reseal the control tower bridge deck, and update the water control manual.

BUDGETED AMOUNT FOR FY 2021: M: $546,000 **O:** $1,052,000 **T:** $1,598,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,129,000 – Funds will be used for commonly performed O&M work.

RC: $350,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $107,000 – Funds will be used for commonly performed O&M work.

WS: $12,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Gillham Lake is estimated to have prevented $35 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $12,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Greers Ferry Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685) as amended by the Flood Control Acts of 1941 (P.L. 77-228) and 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Greers Ferry Lake is located near Heber Springs, Arkansas, on the Little Red River in Cleburne and Van Buren Counties. Greers Ferry is one of the five multi-purpose projects in the White River Basin and was authorized for hydropower and flood risk management. The project contains two 48-megawatt hydropower generators.

FISCAL YEAR 2019 ALLOCATION: $7,762,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to repair the training wall, connect Choctaw dump station to the sewer field, and install water valves in various locations in all parks.

FISCAL YEAR 2020 ALLOCATION: $9,864,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to re-seal expansion joints and to spot repair a road, Greers Ferry Lake shoreline management plan, and the Greers Ferry governor rehabilitation.

BUDGETED AMOUNT FOR FY 2021: M: $1,835,000 **O:** $6,436,000 **T:** $8,271,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,035,000, of which $361,00 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $3,174,000 – Funds will be used for commonly performed O&M work.

H: $3,076,000 of which $520,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $956,000 – Funds will be used for commonly performed O&M work.

WS: $30,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 59% and FRM – 41%. Greers Ferry Lake is estimated to have prevented $55 million in cumulative flood damages since its construction. Hydropower generation in FY 2018 was 144,000 megawatt-hours, enough for 13,000 homes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $101,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: McClellan-Kerr Arkansas River Navigation System, AR

AUTHORIZATION: River and Harbor Act of 1946 (P.L 79-525)

LOCATION AND DESCRIPTION: The 445-mile long McClellan-Kerr Arkansas River Navigation System (MKARNS) is a moderate-use waterway consisting of 18 locks and dams (including Ozark-Jeta Taylor and Dardanelle), providing a nine-foot deep inland navigation channel from the Mississippi River to Catoosa, Oklahoma. The system includes the Arkansas, White, and Verdigris Rivers. The authorized purposes include navigation, environmental stewardship, and recreation.

FISCAL YEAR 2019 ALLOCATION: $50,482,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging, repairing the pintle base at Dardanelle, repairing the stoplog centerpost receivers and inspect miter gates at Trimble and Murray L&D, install stoplog slots in upstream lock walls at Dardanelle, and conduct a power review at Ozark.

FISCAL YEAR 2020 ALLOCATION: $58,866,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging, acquisition and administration of hyacinth control, repair stoplog centerpost receivers and inspect miter gates at Ormond Lock #9, rehabilitate and paint tainter gates at Wilbur D. Mills Dam, prepare Rehabilitation Evaluation Report for Terry Lock & Dam, repair scour area immediately downstream of Lock 1 approach apron, survey of boundary line, and replace power, lighting, and control wiring.

BUDGETED AMOUNT FOR FY 2021: M: $18,318,000 **O:** $31,168,000 **T:** $49,486,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $33,455,000, of which $782,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: $7,550,000, of which $531,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $6,510,400, of which $886,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,960,600, of which $20,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities shared between business lines as follows: HYD – 53% and NAV – 47% at Dardanelle and REC – 63%, HYD – 18%, NAV – 16%, and EN – 3% at Ozark. The McClellan-Kerr Arkansas River Navigation System is estimated to have prevented $2,5 billion in cumulative flood damages since its construction. Hydropower generation in FY 2018 was 672,000 megawatt-hours, enough for 63,000 homes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,743,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Millwood Lake, AR

AUTHORIZATION: Flood Control Act of 1946 (P.L. 79-526) as modified by the Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Millwood Lake is seven miles east of Ashdown, Arkansas, and located on the Little River. The lake was constructed for the primary purpose of flood risk management, and authorized for water supply, recreation, and environmental stewardship.

FISCAL YEAR 2019 ALLOCATION: $4,492,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to update the water control manual, repair the stilling basin, replacing boat lane pole markers in the river channel, resurfacing roadways to River Run East and West Parks, installing a new septic system for Cottonshed Campground, and replacing the current ventilation in Beard's Bluff, White Cliffs, and Cottonshed Park shower facilities.

FISCAL YEAR 2020 ALLOCATION: $3,255,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to conduct tabletop emergency exercises, replace/repair pool gauges, replace limit switches in hoist houses, Millwood Lake master plan and shoreline management plan, pest and invasive species management and updating the water control plan.

BUDGETED AMOUNT FOR FY 2021: M: $1,288,000 **O:** $2,117,000 **T:** $3,405,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,402,000 – Funds will be used for commonly performed O&M work.

RC: $788,000 - Funds will be used for commonly performed O&M work.

H: N/A

EN: $189,000 – Funds will be used for commonly performed O&M work.

WS: $26,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Millwood Lake is estimated to have prevented $35 million in cumulative flood damages since its construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $332,000. There was an additional $1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Narrows Dam, Lake Greeson, AR

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Narrows Dam and Lake Greeson is located on the Little Missouri River in Pike County, AR, north of Murfreesboro, AR. The project consists of a concrete dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 407,000 acre-feet. The power plant has a generating capacity of 25,500 kilowatts. There are 16 campgrounds and recreation areas on the project.

FISCAL YEAR 2019 ALLOCATION: $6,048,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were are also used for specific work activities including replacement of potable water supply, inspections and plans and specifications for hydropower upgrades.

FISCAL YEAR 2020 ALLOCATION: $5,675,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacement lighting in the inspection gallery of the dam.

BUDGETED AMOUNT FOR FY 2021: M: $1,578,000 **O:** $4,273,000 **T:** $5,851,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,587,800, of which $200,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,820,000 – Funds will be used for commonly performed O&M work.

H: $2,144,200, of which $56,200 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $299,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 22% and FRM – 78%. Narrows Dam has prevented over $9 million in flood damages since it was placed in operation in 1950.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Nimrod Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: Nimrod Lake is located on the Fourche LaFave River, nine miles southeast of Plainview, Arkansas, in Yell and Perry Counties. There are 680-square miles of drainage area above the dam. The authorized purpose of the project is flood risk management. The project also offers excellent recreational opportunities.

FISCAL YEAR 2019 ALLOCATION: $2,371,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds are being used for commonly performed O&M activities. Funds are also being used for specific work activities including to install security monitoring systems and replace security gates.

FISCAL YEAR 2020 ALLOCATION: $1,989,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including to conduct a periodic bridge inspection and conduct a stilling basin inspection.

BUDGETED AMOUNT FOR FY 2021: M: $383,000 **O:** $1,943,000 **T:** $2,326,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,483,000 – Funds will be used for commonly performed O&M work.

RC: $495,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $338,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Nimrod Lake is estimated to have prevented $49 million in cumulative flood damages since its construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $72,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Norfork Lake, AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: Norfork Lake is located in Baxter County, Arkansas, and Ozark County, Missouri. Norfork Lake is one of the five multiple-purpose projects on the White River Basin constructed for flood risk management and hydropower. The project contains two 40.25-megawatt hydropower generators.

FISCAL YEAR 2019 ALLOCATION: $7,173,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to replace roadway median hatch covers and repair bridge bearings.

FISCAL YEAR 2020 ALLOCATION: $7,269,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repair bridge bearings and continue Norfork Lake master plan revisions.

BUDGETED AMOUNT FOR FY 2021: M: $2,164,000 **O:** $4,173,000 **T:** $6,337,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,374,500, of which $532,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,305,000 – Funds will be used for commonly performed O&M work.

H: $3,040,800, of which $297,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $603,000 – Funds will be used for commonly performed O&M work.

WS: $13,700, of which $1,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 35.8%, FRM – 64% and WS – 0.2%. Norfork Lake is estimated to have prevented $103 million in cumulative flood damages since its construction. Hydropower generation in FY 2018 was 167,000 megawatt-hours, enough for 16,000 homes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $307,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ouachita and Black Rivers, AR and LA

AUTHORIZATION: Rivers and Harbors Act of 1950, as modified by Rivers and Harbors Act of 1960

LOCATION AND DESCRIPTION: The project for navigation on the Ouachita/Black Rivers extends 366 miles from the mouth of the Black River to Camden, AR and provides for a 9-foot by 100-foot navigation channel. The project also includes a diversion channel through Catahoula Lake near Jonesville, LA for ecological purposes. This is a low use waterway.

FISCAL YEAR 2019 ALLOCATION: $23,245,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a water control manual update.

FISCAL YEAR 2020 ALLOCATION: $7,296,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including removal of silt accumulation due to flooding that cannot be predicted and physical/cyber security maintenance and replacement.

BUDGETED AMOUNT FOR FY 2021: M: $1,750,000 **O:** $5,875,000 **T:** $7,625,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $6,141,000 – Funds will be used for commonly performed O&M work.

FRM: $79,000 – Funds will be used for commonly performed O&M work.

RC: $1,320,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $85,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,759,000. There was an additional $800,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: White River, AR

AUTHORIZATION: The Rivers and Harbors Acts of 1892 and 1960; Office of the Chief of Engineers modified the project authority in 1968.

LOCATION AND DESCRIPTION: This project is located on the White River from mile 9.8 to mile 255, near Newport in Jackson County. The existing authority is for 4.5 feet by 100 feet from mile 198 to 255 at 3.5 feet on the Newport gage; and 8 feet by 125 feet from mile 9.8 to 198 at 12 feet on the Clarendon gage, including a 5 feet minimum draft at low river stages. The local interest is the Arkansas Waterways Commission.

FISCAL YEAR 2019 ALLOCATION: $275,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging.

FISCAL YEAR 2020 ALLOCATION: $25,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for specific work activities including surveys.

BUDGETED AMOUNT FOR FY 2021: M: $25,000 **O:** $0 **T:** $25,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $25,000 – Funds will be used for specific work activities including surveys.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The local interest is the Arkansas Waterways Commission.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $226,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Black Butte Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on Stony Creek, a tributary of the Sacramento River, about nine miles west of the town of Orland, CA in the Counties of Glenn and Tehama. The project consists of an earthen-fill dam, six dikes, spillway, and reservoir.

FISCAL YEAR 2019 ALLOCATION: $2,729,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities to include arc flash hazard analysis and wildlife habitat management for environmental stewardship.

FISCAL YEAR 2020 ALLOCATION: $8,245,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities to include replacement of the HQ building, hydraulic steel structure inspection, pest and invasive species management and restroom rehabilitation.

BUDGETED AMOUNT FOR FY 2021: M: $267,000 **O:** $2,387,000 **T:** $2,654,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,609,000 – Funds will be used for commonly performed O&M work.

RC: $755,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $260,000 – Funds will be used for commonly performed O&M work.

WS: $30,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The Black Butte Lake Archeological District is comprised of 52 sites eligible for inclusion in the National Register of Historic Places.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $183,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Buchanan Dam – H.V. Eastman Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is on the Chowchilla River 16 miles northeast of the City of Chowchilla, CA in the Counties of Madera and Mariposa. The project consists of an earthen-fill dam and reservoir for flood control, irrigation, and recreation. The project also includes two miles of channel improvement work and levee construction on Ash and Berenda Sloughs, two tributary channels of the river.

FISCAL YEAR 2019 ALLOCATION: $2,083,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including gate automation, vegetation removal, and an alignment survey.

FISCAL YEAR 2020 ALLOCATION: $4,927,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an access road rock slide repair, hydraulic steel structure inspection, and an arc flash hazard analysis.

BUDGETED AMOUNT FOR FY 2021: M: $508,000 **O:** $2,111,000 **T:** $2,619,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,751,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including arc flash hazard analysis.

RC: $667,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $171,000 – Funds will be used for commonly performed O&M work.

WS: $30,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $56,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Coyote Valley Dam, Lake Mendocino, CA

AUTHORIZATION: Flood Control Act of 1950, Water Resources Development Act of 1974

LOCATION AND DESCRIPTION: Lake Mendocino, also known as Coyote Valley Dam, is on the Russian River five miles northeast of the city of Ukiah in the County of Mendocino. The dam is an earthen-fill structure with a reservoir. The Coyote Valley Dam project was completed in 1959 for flood control, water supply, recreation, and stream-flow regulation. Authorization for environmental mitigation was added in 1974.

FISCAL YEAR 2019 ALLOCATION: $3,505,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,942,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities to include an update to the water control manual, Coho salmon water filtration and incubation facility, and a spillway erodability analysis.

BUDGETED AMOUNT FOR FY 2021: M: $1,343,000 **O:** $3,497,000 **T:** $4,840,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,994,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety periodic assessment, replace tower generator and fuel supply, and toe drain inspection and modification.

RC: $1,526,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $300,000 – Funds will be used for commonly performed O&M work.

WS: $20,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The fish imprinting facility is operated in conjunction with the fish hatchery at Warm Springs Dam (Dry Creek project). The project annually collects over $300,000 in user fees, which are returned to the Treasury.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,582,000. There was an additional $7,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Dry Creek (Warm Springs) Lake and Channel, CA

AUTHORIZATION: River and Harbor Act of 1962, Title II; Water Resources Development Act of 1974

LOCATION AND DESCRIPTION: Dry Creek Lake and Channel is part of the tributary of the Russian River 75 miles north of the city of San Francisco in the County of Sonoma. It consists of an earthen- and rock-fill dam, and reservoir. The project was completed in 1983 for flood control, water supply, environmental stewardship, and recreation purposes. Authorization for mitigation was added in 1974.

FISCAL YEAR 2019 ALLOCATION: $7,419,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including designs to repair outlet features and to modify, repair, and test bulkheads, invasive species monitoring and fire protection vessel, and permanent cavitation/erosion plan.

FISCAL YEAR 2020 ALLOCATION: $7,968,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an emergency water supply repair, boundary inspection and marking, Coho salmon water filtration and incubation facility, and a spillway erodability analysis.

BUDGETED AMOUNT FOR FY 2021: M: $1,971,000 **O:** $5,517,000 **T:** $7,488,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $5,153,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacement of a 60,000 gallon potable water tank, dam safety periodic assessment, boundary inspection and marking, and replace tower generator and fuel supply.

RC: $1,845,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $450,000 – Funds will be used for commonly performed O&M work.

WS: $40,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The fish hatchery supports the last stock of the California Central Coast Coho. If this stock was to perish the subspecies would become extinct. The Water Resources Reform and Development Act of 2014 provided authority to initiate a feasibility study on potential improvements to fish habitat which completed in FY 2019 with a Director's Report.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,625,000. There was an additional $4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Farmington Dam, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on Littlejohn Creek three miles upstream from Farmington and 18 miles east of the city of Stockton in the Counties of San Joaquin and Stanislaus. The project consists of an earthen-fill dam, spillway, and reservoir. There are no recreation facilities.

FISCAL YEAR 2019 ALLOCATION: $473,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $705,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $86,000 **O:** $580,000 **T:** $666,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $666,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including arc flash hazard analysis.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $67,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hidden Dam – Hensley Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is located on the Fresno River 15 miles northeast of the city of Madera in the County of Madera. The project consists of an earthen-fill dam and a reservoir.

FISCAL YEAR 2019 ALLOCATION: $2,285,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including gate automation.

FISCAL YEAR 2020 ALLOCATION: $2,612,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam safety formal periodic assessments, inspections and reports and hydraulic steel structure inspection.

BUDGETED AMOUNT FOR FY 2021: M: $271,000 **O:** $2,272,000 **T:** $2,543,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,622,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including arc flash hazard analysis.

RC: $762,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $129,000 – Funds will be used for commonly performed O&M work.

WS: $30,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $52,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Isabella Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is in the County of Kern 50 miles northeast of the city of Bakersfield near the confluence of the north and south forks of the Kern River. The project comprises an earthen-fill dam, an earthen-fill auxiliary dam (about one-half mile east of the main dam), a concrete spillway, and a reservoir.

FISCAL YEAR 2019 ALLOCATION: $1,375,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary monumentation and rectification and gate automation.

FISCAL YEAR 2020 ALLOCATION: $1,679,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary monumentation and rectification and hydraulic steel structure inspection.

BUDGETED AMOUNT FOR FY 2021: M: $433,000 **O:** $1,688,000 **T:** $2,121,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,724,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $367,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: $30,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Recreation is managed by the U.S. Forest Service. The project is currently not fully able to provide the benefits for which it was designed and constructed due to seismic issues and seepage problems. A Dam Safety Modification Study was conducted and the Record of Decision (Dam Safety Modification Report (DSMR)) approved in December of 2012. The Dam Safety Modification (Construction) project is currently in progress. Production blasting has started and will continue through 2020.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $56,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Los Angeles County Drainage Area, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Project consists of the following:

a. Hansen Dam is four miles east of the City of San Fernando
b. Lopez Dam is two miles northeast of the City of San Fernando
c. Santa Fe Dam is 15 miles northeast of the City of Los Angeles
d. Sepulveda Dam is 25 miles northwest of the City of Los Angeles
e. Whittier Narrows Dam is ten miles east of the City of Los Angeles
f. Los Angeles County Drainage Area Channels consist of 517 miles of channels, of which 38 miles are maintained by the U.S. Army Corps of Engineers and the remainder by Los Angeles County Department of Public Works

Note: Recreation areas exist at all dams except Lopez.

FISCAL YEAR 2019 ALLOCATION: $22,407,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including evaluation of two drain systems, updating seismicity, paving, periodic inspection of Lopez dam, implementing a pest control program, and sediment removal at two project features.

FISCAL YEAR 2020 ALLOCATION: $15,477,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including bridge inspections on three dams, dam safety table top exercise, update to water control manual for Whittier Narrows Dam, and sediment removal in the Los Angeles River channel.

BUDGETED AMOUNT FOR FY 2021: M: $10,475,000 **O:** $7,598,000 **T:** $18,073,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $17,113,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including San Gabriel River Levee Repair, hydraulic steel structure Inspections at four Dams, LA River Levee vegetation removal, LA River pipe video inspections and a survey of Santa Fe Dam.

RC: $325,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $635,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $32,000. There was an additional $16,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Merced County Streams, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located in the Counties of Merced and Mariposa. The project consists of the following flood control improvements:

a. Five flood retention dams:
   i. Mariposa, 88 feet-high (15,000 acre-feet), 18 miles east of Merced, CA.
   ii. Owens 75 feet-high (3,600 acre-feet), 16 miles east of Merced, CA.
   iii. Bear, 92 feet-high (7,700 acre-feet), 16 miles east of Merced, CA.
   iv. Burns, 53 feet-high (7,000 acre-feet), 13 miles northeast of Merced, CA.
   v. Castle, 40 feet-high (6,400 acre-feet), 6 miles northwest of Merced, CA.
b. Black Rascal and Owens Diversion Canals; and
c. Channel improvements on various streams in the vicinity of Merced, CA.

There are no recreation areas.

FISCAL YEAR 2019 ALLOCATION: $453,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including vegetation removal.

FISCAL YEAR 2020 ALLOCATION: $465,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $61,000 **O:** $462,000 **T:** $523,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $523,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a dam safety periodic inspection and periodic assessment and reports.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $98,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mojave River Dam, CA

AUTHORIZATION: Rivers and Harbors Act of 1960, Title II (PL 86-845)

LOCATION AND DESCRIPTION: The project is 100 miles east of the City of Los Angeles in the County of San Bernardino. It consists of an earthen-fill dam, service and spillway roads, outlet works, an earthen-fill saddle dike, a reservoir, and a recreation area.

FISCAL YEAR 2019 ALLOCATION: $2,071,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary fence repair, paving of access roads and dam crest, repair of concrete outlet works, preparing an Operations Management Plan, and installation of three seismographs.

FISCAL YEAR 2020 ALLOCATION: $1,316,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an outlet conduit tunnel.

BUDGETED AMOUNT FOR FY 2021: M: $367,000 **O:** $662,000 **T:** $1,029,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $757,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including installation of signage.

RC: $100,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $172,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $93,000. There was an additional $7,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: New Hogan Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is 28 miles northeast of the city of Stockton in the County of Calaveras, and located on the Calaveras River. It consists of a rock-fill dam with an impervious earth core, four dikes, spillway, and reservoir.

FISCAL YEAR 2019 ALLOCATION: $3,099,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including real estate boundary monumentation and rectification and gate automation.

FISCAL YEAR 2020 ALLOCATION: $3,547,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for a boundary survey and hydraulic steel structure inspection.

BUDGETED AMOUNT FOR FY 2021: M: $995,000 **O:** $2,804,000 **T:** $3,799,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,181,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including arc flash hazard analysis and a dam safety periodic inspection.

RC: $950,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $606,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a boundary survey and resolution of real estate encroachments.

WS: $62,000 - Funds will be used for commonly performed O&M work.

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $136,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: New Melones Lake (Downstream Channel), CA

AUTHORIZATION: Flood Control Act of 1944, Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is located in the Counties of Calaveras, San Joaquin, Stanislaus, and Tuolumne. The project extends along the Stanislaus River from Goodwin Dam to its confluence with the San Joaquin River. The project provides recreation access to the Lower Stanislaus River.

FISCAL YEAR 2019 ALLOCATION: $1,989,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including the Knight's Ferry Historic Covered Bridge and initial efforts for boundary and flowage easement inspection.

FISCAL YEAR 2020 ALLOCATION: $2,740,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a boundary and flowage easement inspection and resolution of real estate encroachments.

BUDGETED AMOUNT FOR FY 2021: M: $746,000 **O:** $1,572,000 **T:** $2,318,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $516,000 – Funds will be used for commonly performed O&M work.

RC: $1,107,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $695,000 – Funds will be used for commonly performed O&M work. Funds are also being used for specific work activities including boundary and flowage easement inspection and monitoring activities.

WS: N/A

OTHER INFORMATION: New Melones Dam was constructed by the U.S. Army Corps of Engineers, but is operated and maintained by the U.S. Bureau of Reclamation as part of the Central Valley project.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $20,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pine Flat Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Pine Flat Dam is 25 miles east of the city of Fresno in the County of Fresno and located on the Kings River. The project consists of a straight, gravity-type concrete structure, a spillway in the central section, and a reservoir.

FISCAL YEAR 2019 ALLOCATION: $4,393,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including cleaning vertical drains, repairs to the army weir, and for developing a plan to cap intake screen on a water system.

FISCAL YEAR 2020 ALLOCATION: $4,209,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary monumentation and rectification, hydraulic steel structure inspection and environmental compliance requirement.

BUDGETED AMOUNT FOR FY 2021: M: $1,196,000 **O:** $3,526,000 **T:** $4,722,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,476,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an arc flash hazard analysis and a dam safety periodic inspection.

RC: $949,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $237,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: $60,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $294,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Sacramento River and Tributaries (Debris Control), CA 2/

AUTHORIZATION: Rivers and Harbors Act of 1935

LOCATION AND DESCRIPTION: Englebright Dam is 20 miles east of the city of Marysville in the County of Yuba on the Yuba River. North Fork Dam is 5 miles northeast of Auburn, CA in Nevada County on the American River. The thin wall concrete arch dams hold back hydraulic mining sediment and debris to prevent navigation impacts downstream. The project was originally constructed by the California Debris Commission and was transferred to the Corps in 1986. The Corps administers the recreation program at Englebright. The US Bureau of Reclamation administers recreation at North Fork Dam by outgrant to the California State Parks system.

FISCAL YEAR 2019 ALLOCATION: $994,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary monumentation and rectification.

FISCAL YEAR 2020 ALLOCATION: $900,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary monumentation and rectification.

BUDGETED AMOUNT FOR FY 2021: M: $25,000 **O:** $819,000 **T:** $844,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

FRM: N/A

RC: $635,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $209,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The Sacramento District was involved in litigation brought by the South Yuba River Citizens League regarding project impacts to Endangered Species Act listed species (salmon, steelhead and green sturgeon). As a result of the litigation, the Corps issued a Biological Assessment in October 2013 clarifying the discretionary activities at the dams. In May 2014, National Marine Fisheries Service issued a letter of concurrence that the proposed project is not likely to adversely affect the listed species.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $267,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

2/ The amounts and descriptions on this justification sheet reflect only the activities for this project funded from the Operation and Maintenance account. Corresponding project activities funded from the Harbor Maintenance Trust Fund are listed on a separate justification sheet.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: San Francisco Bay Delta Model Structure, CA

AUTHORIZATION: Water Resources Development Act of 1974

LOCATION AND DESCRIPTION: The San Francisco Bay Delta Model Regional Visitor Center (BMVC) is located in the city of Sausalito in the County of Marin. The Class A Visitor Center has hundreds of historical exhibits and STEM (science, technology, engineering, and mathematics) related exhibits as well. The centerpiece exhibit is a historical hydraulic to scale three-dimensional model of the greater San Francisco Bay Area and Delta covering one and one half acres. Building also houses the historical significance exhibits showcasing U.S. Army Corps of Engineers (USACE) missions, the model, and the Marin Shipyard during WWII.

FISCAL YEAR 2019 ALLOCATION: $1,179,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,008,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $313,000 **O:** $636,000 **T:** $949,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $949,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The facility receives over 200,000 visitors (60% school children) per year to learn about USACE missions. The BMVC fulfills the USACE Strategic Communication goals by providing public and curriculum-based tours, special events, workshops, and seminars on the Corps' modern missions and water resource developments projects. It emphasizes the historical significance of the Marin Shipyard during World War II and the actual model used in USACE decision making. The Bay Model building also houses the district Emergency Operations Center. The Bay Model building is a “net zero” facility as it generates enough electrical power from solar panels to offset all power usage.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $884,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Santa Ana River Basin, CA

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Project consists of the following:

a. Brea Dam is located two miles north of Fullerton.
b. Carbon Canyon Dam is located 16 miles northeast of Santa Ana.
c. Fullerton Dam is located two miles northeast of Fullerton.
d. Prado Dam is located 45 miles east of Los Angeles.
e. San Antonio Dam is located eight miles north of Pomona.

San Antonio and Chino Creeks Channels are located 30 miles east of Los Angeles and includes 16 miles of channel.

All dams except San Antonio have recreation areas.

FISCAL YEAR 2019 ALLOCATION: $12,445,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repair fencing and access gates, inspections of two sub-drain systems, updates of four O&M manuals, preparation of four operation management plans, and infrastructure rehabilitation at four dam sites.

FISCAL YEAR 2020 ALLOCATION: $9,846,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the cultural resources at two dams, dam safety for flood risk management, LED light upgrade at four dams, tabletop exercise coordinated with local interest for Prado Dam and Prado Dam non-structural and structural interim risk reduction measures.

BUDGETED AMOUNT FOR FY 2021: M: $4,980,000 **O:** $4,876,000 **T:** $9,856,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $9,281,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including hydraulic steel structure inspections, arc flash analysis survey (Brea and Prado Dam) and San Antonio Dam electrical modernization.

RC: $253,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $322,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: There are several areas along the flood control channel and levee system that provide less than a 100-year level of protection.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $131,000. There was an additional $57,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into FY 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Success Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Tule River, six miles east of the city of Porterville in the County of Tulare. The project comprises an earthen-fill dam, a spillway, an auxiliary earthen-fill dam, and a reservoir.

FISCAL YEAR 2019 ALLOCATION: $3,508,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities to include solar panels and repairs and modifications to the bulkhead gate.

FISCAL YEAR 2020 ALLOCATION: $2,827,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including hydraulic steel structure inspection and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $405,000 **O:** $2,869,000 **T:** $3,274,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,276,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an arc flash hazard analysis ($200,000).

RC: $795,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $143,000 – Funds will be used for commonly performed O&M work.

WS: $60,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Project is currently not fully able to provide the benefits for which it was designed and constructed. Over the past 15 years multiple studies were performed to analyze the safety risk of Success Dam in its current state (without the spillway enlargement project). A Baseline Risk Assessment was completed and presented to the Dam Safety Oversight Group in July 2017. The dam was reclassified as a Dam Safety Action Class 3. A Level 3 Economic Update was completed in FY 2018. Design for the spillway enlargement project is currently underway.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $529,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Terminus Dam (Lake Kaweah), CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is 20 miles east of the city of Visalia in the County of Tulare, and is located on the Kaweah River. The project consists of an earthen-fill dam, an auxiliary earthen-fill dam, fuse gates, and a reservoir.

FISCAL YEAR 2019 ALLOCATION: $2,087,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including removing and replacing railing at tower bridge and spillway bridge.

FISCAL YEAR 2020 ALLOCATION: $3,373,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a hydraulic steel structure inspection and restroom rehabilitation.

BUDGETED AMOUNT FOR FY 2021: M: $447,000 **O:** $3,035,000 **T:** $3,482,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,517,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an arc flash hazard analysis.

RC: $780,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $125,000 – Funds will be used for commonly performed O&M work.

WS: $60,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $250,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Yuba River, CA 2/

AUTHORIZATION: Rivers and Harbors Act of 1896, Rivers and Harbors Act of 1902, Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: The project consists of a concrete debris barrier (Daguerre Point Dam), protective works (groins), and fish ladders. The project is located in the County of Yuba. The project holds back hydraulic mining sediment and debris to prevent navigation impacts downstream. The project was originally constructed by the California Debris Commission and was transferred to the U.S. Army Corps of Engineers in 1986.

FISCAL YEAR 2019 ALLOCATION: $178,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary monumentation and rectification.

FISCAL YEAR 2020 ALLOCATION: $201,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary monumentation and rectification.

BUDGETED AMOUNT FOR FY 2021: M: $125,000 **O:** $146,000 **T:** $271,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: $271,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: N/A

OTHER INFORMATION: The Sacramento District was involved in litigation brought by the South Yuba River Citizens League regarding project impacts to Endangered Species Act listed species (salmon, steelhead and green sturgeon). As a result of the litigation, the Corps issued a Biological Assessment in October 2013 clarifying the discretionary activities at the dams. In May 2014, National Marine Fisheries Service issued a biological opinion that the proposed action is not likely to jeopardize the continued existence of the federally listed species.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $34,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

2/ The amounts and descriptions on this justification sheet reflect only the activities for this project funded from the Operation and Maintenance account. Corresponding project activities funded from the Harbor Maintenance Trust Fund are listed on a separate justification sheet.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Bear Creek Lake, CO

AUTHORIZATION: Flood Control Act of 1968 (P.L. 90-483), Federal Water Project Recreation Act (P.L. 89-72)

LOCATION AND DESCRIPTION: Bear Creek Dam is located in the Denver metropolitan area on the southwest edge of Lakewood at the confluence of Bear Creek and Turkey Creek. Construction was authorized in 1968 and was completed in 1982. The main embankment measures 5,300 feet in length and has a maximum height of 179.5 feet; and the south embankment measures 2,100 feet in length with a maximum height of 65 feet. The reservoir impounded by the dam is 0.5 miles long with a maximum depth of 48 feet at the dam. The primary purpose of the dam is flood damage reduction. Fish and wildlife, and recreation are also authorized purposes.

FISCAL YEAR 2019 ALLOCATION: $567,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairs to the low level intake.

FISCAL YEAR 2020 ALLOCATION: $640,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including weatherproof right abutment of the pneumatic PZ terminal panel house.

BUDGETED AMOUNT FOR FY 2021: M: $20,000 **O:** $657,000 **T:** $677,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $602,000 – Funds will be used for commonly performed O&M work.

RC: $10,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $65,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 totals $5.9 million. The project encompasses 2,313 land acres, 107 water acres with 5 miles of shoreline, and has a total reservoir storage capacity of 30 thousand acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $65,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Chatfield Lake, CO

AUTHORIZATION: Emergency Watershed Protection (P.L. 81-516), Water Resources Development Act of 1986 (P.L. 99-662), Federal Water Project Recreation Act (P.L. 89-72), Water Resources Development Act of 1974 (P.L. 93-251)

LOCATION AND DESCRIPTION: Chatfield Dam is located in the Denver metropolitan area southwest of Denver on the South Platte River. Construction was authorized in 1967 and was completed in 1975. The dam measures 13,136 feet in length and has a maximum height of 147 feet. Chatfield Lake is 2.0 miles long with a maximum depth of 47 feet at the intake tower. The project provides benefits to flood damage reduction, fish and wildlife, water supply, and recreation.

FISCAL YEAR 2019 ALLOCATION: $1,949,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including spillway slab rehabilitation phase III.

FISCAL YEAR 2020 ALLOCATION: $1,941,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repair of concrete erosion damage to invert of flood control conduit and Chatfield intake structure bridge inspection.

BUDGETED AMOUNT FOR FY 2021: M: $150,000 **O:** $1,468,000 **T:** $1,618,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,332,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including Chatfield intake structure bridge inspection.

RC: $180,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $106,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 totals $12.6 million. The project encompasses 6,745 land acres, 1,422 water acres with 9 miles of shoreline, and has a total reservoir storage capacity of 233 thousand acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $471,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cherry Creek Lake, CO

AUTHORIZATION: The Flood Control Act of 1941 (PL 77-228), 1944 (PL 78-534), and Fish and Wildlife Coordination Act (PL 79-732)

LOCATION AND DESCRIPTION: Cherry Creek Dam is located in the Denver metropolitan area in Aurora, Colorado. Construction of the dam was authorized in 1948 and was completed in 1950. The dam measures 14,300 feet in length and has a maximum height of 141 feet. Cherry Creek Reservoir is 3.25 miles long with a maximum depth of 46 feet at the intake tower under normal operation. The project provides benefits for flood damage reduction, fish and wildlife, and recreation.

FISCAL YEAR 2019 ALLOCATION: $7,447,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including Cherry Creek Dam emergency spillway channel cleanout, install new drainage system to southeast of outlet works stilling basin, dewater and inspect the stilling basin and replace service gates anodes.

FISCAL YEAR 2020 ALLOCATION: $1,800,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the Fort Randall spillway boat ramp and access road repairs.

BUDGETED AMOUNT FOR FY 2021: M: $51,000 **O:** $1,076,000 **T:** $1,127,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $945,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including Cherry Creek bridge inspection - intake structure bridge.

RC: $123,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $59,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 total $1.4 billion. The project encompasses 5,345 land acres, 844 water acres with 8 miles of shoreline, and has a total reservoir storage capacity of 91.9 thousand acre-feet. It also provides recreational programs, activities, and facilities that support approximately 817,000 visits per year, generates approximately $23.7 million in revenue, and sustains 157 jobs.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $47,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: John Martin Reservoir, CO

AUTHORIZATION: Flood Control Act of 1936 as Caddoa Reservoir, renamed in 1940.

LOCATION AND DESCRIPTION: John Martin Reservoir is located near Hasty in the County of Bent, about midway between the towns of Lamar and Las Animas. It is located on the Arkansas River at river-mile 1159, and 58 miles upstream from the Colorado and Kansas state line. The dam has a concrete section, an earthen section, two earthen wing dikes, and an overflow, gated spillway. A State Park is also located at the project.

FISCAL YEAR 2019 ALLOCATION: $3,766,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including pipe and septic replacement, tainter gate trunnion pier repairs, and plans and specifications for replacing tainter gate side seals.

FISCAL YEAR 2020 ALLOCATION: $3,826,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the Fort Lyon levee toe drain, bulkhead placement, replace concrete dam raised sidewalks, reservoir dredging (design) and Voice over Internet Protocol installation.

BUDGETED AMOUNT FOR FY 2021: M: $925,000 **O:** $2,159,000 **T:** $3,084,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,493,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the conduit and bulkhead stop repairs design.

RC: $194,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $397,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2018: flood control damages prevented $142.3 million, sediment control benefits $9.7 million, and irrigation benefits $34.3 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $697,000. There was an additional $4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Trinidad Lake, CO

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Trinidad Dam is located in the County of Las Animas, four miles upstream from the city of Trinidad and 250 miles from the city of Albuquerque, NM. It is located on the Purgatoire River at river mile 160.5, an Arkansas River tributary. The project consists of an earthen-fill dam, spillways, a reservoir, and recreation facilities. The State of Colorado operates and maintains the recreation areas.

FISCAL YEAR 2019 ALLOCATION: $2,032,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including installation of additional shut off valves along main water line and weirs for downstream abutment seepage.

FISCAL YEAR 2020 ALLOCATION: $2,282,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the radio repeater antenna replacement and a boundary survey.

BUDGETED AMOUNT FOR FY 2021: M: $494,000 **O:** $1,566,000 **T:** $2,060,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,699,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including asbestos window replacement and the boundary survey.

RC: $174,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $187,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY2018: flood control damages prevented $86.9 million, sediment control benefits $3.6 million, and irrigation benefits $3.3 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $617,000. There was an additional $4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Black Rock Lake, CT

AUTHORIZATION: The Flood Control Act of 1960 (P.L. 86-645).

LOCATION AND DESCRIPTION: Black Rock Lake is located on Branch Brook, about two miles upstream from its confluence with the Naugatuck River. The project is located in Thomaston and Watertown, Connecticut. Black Rock Lake is part of a comprehensive system of flood control within the Housatonic River Basin. The project consists of an earth-filled dam, 933-feet long with a maximum height of 154 feet; an uncontrolled chute spillway, 140-eet wide with a maximum discharge capacity of 33,500 cubic feet-per-second; and a rectangular outlet conduit with two control gates. The reservoir provides a flood storage capacity of 8,755 acre-feet to control runoff from its net drainage area of 20.4 square miles.

FISCAL YEAR 2019 ALLOCATION: $691,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $650,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including maintenance of project roadways.

BUDGETED AMOUNT FOR FY 2021: **M:** $905,000 **O:** $550,000 **T:** $1,455,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,332,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including spillway wall, bridge inspection and maintenance and repair of paved roads.

RC: $47,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $76,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including forest inventory and timber survey.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $330.1 million in flood damages since placed in service in 1971.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $137,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Colebrook River Lake, CT

AUTHORIZATION: The Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Colebrook River Lake is located on the West Branch of the Farmington River, about 8.1 miles above its junction with the main stem of the Farmington River. The project is located in Colebrook, Connecticut, and the pool extends into Sandisfield and Tolland, Massachusetts. Colebrook River Lake is part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,300 feet long with a maximum height of 223 feet; an earth-filled dike 1,240 feet long with a maximum height of 54 feet; an uncontrolled ogee weir spillway, 205 feet wide with a maximum discharge capacity of 96,000 cubic feet per second; and a 10-foot diameter outlet tunnel with three control gates. The reservoir provides a flood storage capacity of 97,700 acre-feet to control runoff from its net drainage area of 118 square miles.

FISCAL YEAR 2019 ALLOCATION: $3,342,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to construct emergency access road to dam outlet works, relocate access road, repairs to Colebrook Old Route 8 Bridge, and review of dam freeboard.

FISCAL YEAR 2020 ALLOCATION: $771,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: **M:** $151,000 **O:** $696,000 **T:** $847,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $716,000 – Funds will be used for commonly performed O&M work. Funds will also be used to perform specific work activities including bridge inspections.

RC: $60,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $62,000 – Funds will be used for commonly performed O&M work.

WS: $9,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Project has prevented an estimated $159.4 million in flood damages since placed in service in 1969.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,417,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hancock Brook Lake, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: Hancock Brook Lake is located along Branch Brook, about two miles upstream from its confluence with the Naugatuck River in Connecticut. The project is located in Thomaston and Watertown, Connecticut. Hancock Brook Lake is part of a comprehensive system of flood control projects within the Housatonic River Basin. The project consists of an earth-filled dam with spillway and an un-gated outlet conduit.

FISCAL YEAR 2019 ALLOCATION: $833,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairs to the dam and appurtenant structures, replace security fencing and project gates.

FISCAL YEAR 2020 ALLOCATION: $580,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: **M:** $286,000 **O:** $557,000 **T:** $843,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $710,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacing the intake weir stoplog system.

RC: $48,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $85,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $102.9 million in flood damages since placed in service in 1966. The reservoir provides a flood storage capacity of 4,030 acre-feet to control runoff from its net drainage area of 12 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $182,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hop Brook Lake, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: Hop Brook Lake is located on Hop Brook, about 1.4 miles upstream from its confluence with the Naugatuck River in Connecticut. The project is located in Waterbury, Middlebury and Naugatuck, Connecticut. Hop Brook Lake is part of a comprehensive system of flood control projects within the Housatonic River Basin. The project consists of an earth-filled dam with a spillway and gate-controlled outlet.

FISCAL YEAR 2019 ALLOCATION: $1,272,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing leaking tower roof.

FISCAL YEAR 2020 ALLOCATION: $1,202,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: **M:** $396,000 **O:** $1,037,000 **T:** $1,433,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,010,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacing the intake weir stoplog system.

RC: $266,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $157,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $169.2 million in flood damages since placed in service in 1968. The reservoir provides a flood storage capacity of 6,970 acre-feet to control runoff from its net drainage area of 16.4 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $156,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mansfield Hollow Lake, CT

AUTHORIZATION: The Flood Control Act of 1941

LOCATION AND DESCRIPTION: Mansfield Hollow Lake is on the Natchaug River, about 5.3 miles upstream from its confluence with the Willimantic River. The project is in the towns of Windham and Chaplin, Connecticut, and is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 14,050 feet long and a maximum height of 68 feet; six earth-filled dikes with a total length of 2,656 feet and a maximum height of 53 feet; an uncontrolled ogee weir spillway, 690-feet wide with a maximum discharge capacity of 106,600 cubic-feet- per-second; and five rectangular outlet conduits with 26 control gates. The reservoir provides a flood storage capacity of 52,000 acre-feet to control runoff from its net drainage area of 159 square miles.

FISCAL YEAR 2019 ALLOCATION: $776,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dive inspection of spillway area, hydraulic steel structure inspections and management of a special status species.

FISCAL YEAR 2020 ALLOCATION: $871,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: **M:** $96,000 **O:** $833,000 **T:** $929,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $794,000 – Funds will be used for commonly performed O&M work.

RC: $71,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $64,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including pest and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $256.3 million in flood damages since placed in service in 1952.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $123,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Northfield Brook Lake, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: Northfield Brook Lake is located in Thomaston, Connecticut, along Northfield Brook, about 1.3 miles upstream from its confluence with the Naugatuck River. Northfield Brook Lake is part of a comprehensive system of flood control projects within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 810-feet long and a maximum height of 118 feet; an uncontrolled ogee weir spillway, 72-feet wide with a maximum discharge capacity of 8,800-cubic feet-per-second; and a 3-foot diameter outlet conduit with a control gate. The reservoir provides a flood storage capacity of 2,430 acre-feet to control runoff from its net drainage area of 5.7 square miles.

FISCAL YEAR 2019 ALLOCATION: $448,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $828,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam spillway/discharge channel safety fence repairs and debris removal, replace security fencing and project gates and a forest inventory and timber survey.

BUDGETED AMOUNT FOR FY 2021: **M:** $474,000 **O:** $750,000 **T:** $1,224,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,071,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including hydraulic steel structure inspections, repair intake weir trash rack, and replace intake weir stoplog system.

RC: $78,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $75,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including conducting a forest inventory and timber survey.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $116.8 million in flood damages since placed in service in 1965.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $121,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Stamford Hurricane Barrier, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: The Stamford Hurricane Barrier is located along the East and West Branches of Stamford Harbor and Westcott Cove in Stamford, Connecticut. The project includes the East Branch Barrier, an earth-filled dike with rock slope protection, a 90-foot wide gated opening for navigation and a 45,000 gallon-per-minute pump station to handle interior drainage. The project includes protection along the West Branch of Stamford Harbor, consisting of 1,349 feet of concrete wall, 160 feet of sheet pile bulkhead wall, 2,950 feet of earth-filled dike and a 229,500 gallon-per-minute pump station. The project also includes protection along Westcott Cove consisting of 4,400 feet of earth-filled dike and two pump stations with a total capacity of 85,500 gallons-per-minute.

FISCAL YEAR 2019 ALLOCATION: $668,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including insulating the control room.

FISCAL YEAR 2020 ALLOCATION: $842,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacing operating building roofs.

BUDGETED AMOUNT FOR FY 2021: **M:** $98,000 **O:** $508,000 **T:** $606,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $606,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $106.6 million in flood damages since placed into service in 1969.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $144,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Thomaston Dam, CT

AUTHORIZATION: The Flood Control Act of 1944

LOCATION AND DESCRIPTION: Thomaston Dam is located along the Naugatuck River, 30.4 miles upstream from its confluence with the Housatonic River. The project is located in Thomaston, Litchfield, Harwinton, and Plymouth, Connecticut. Thomaston Dam is part of a comprehensive system of flood control projects within the Housatonic River Basin. The project consists of an earth-filled dam with an uncontrolled side channel spillway and a gated-outlet.

FISCAL YEAR 2019 ALLOCATION: $1,066,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including cleaning and inspection of the hydraulic motors.

FISCAL YEAR 2020 ALLOCATION: $1,128,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including upgrade dam tower and utility building electrical systems, replace security fencing and project gates, and security system upgrade and monitoring services.

BUDGETED AMOUNT FOR FY 2021: **M:** $523,000 **O:** $750,000 **T:** $1,273,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,068,000 **–** Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including repair dam gate #1 cylinder rod.

RC: $86,000 **–** Funds will used for commonly performed O&M work.

H: N/A

EN: $119,000 **–** Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including forest inventory and timber survey.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $1.44 billion in flood damages since placed in service in 1960. The reservoir provides a flood storage capacity of 42 thousand acre-feet to control runoff from its net drainage area of 97.2 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $254,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: West Thompson Lake, CT

AUTHORIZATION: The Flood Control Act of 1960

LOCATION AND DESCRIPTION: West Thompson Lake is located along the Quinebaug River, in the Town of Thompson, Connecticut. West Thompson Lake is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 2,550-feet long and a maximum height of 69.5 feet; an earth-filled dike 1,650-feet long with a maximum height of 30 feet; an uncontrolled L-shaped ogee weir spillway, 320-feet wide with a maximum discharge capacity of 63,000-cubic feet-per-second; and a 12-foot diameter horseshoe-shaped outlet conduit with three control gates.

FISCAL YEAR 2019 ALLOCATION: $884,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to repair control valves.

FISCAL YEAR 2020 ALLOCATION: $803,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: **M:** $854,000 **O:** $1,056,000 **T:** $1,910,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,264,000 **–** Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including building renovations to maintenance facility and to perform underwater inspection of upstream side of gates.

RC: $586,000 **–** Funds will be used for commonly performed O&M work.

H: N/A

EN: $60,000 **–** Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 26.8 thousand acre-feet to control runoff from its net drainage area of 173.5 square miles. Project has prevented an estimated $91.8 million in flood damages since being placed in service in 1965.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $136,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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FLORIDA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: AIWW, Norfolk, VA to St. Johns River, FL, GA, SC, NC and VA

AUTHORIZATION: River and Harbor Acts of 1912, 1927, 1930, 1935, 1937, 1938, 1948, 1950, 1954, 1960 (Section 107), 1966 and 1970 and the Water Resources Development Act of 1976.

LOCATION AND DESCRIPTION: The portion of the Atlantic Intracoastal Waterway (AIWW) that lies within the Jacksonville District boundary, from the Florida/Georgia border to the St. Johns River in Jacksonville. The AIWW is an inland, low use navigation project. The AIWW project authorizes a channel 90 feet wide in land cuts and narrow streams and 150 feet wide in open waters by 12 feet deep. The length of the project within SAJ boundaries is approximately 22 miles.

FISCAL YEAR 2019 ALLOCATION: $1,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: N/A

DESCRIPTIONS OF WORK FOR FY 2020: N/A

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $100,000 **T:** $100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $100,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: A Memorandum of Agreement with the Florida Inland Navigation District (FIND) to contribute funds for the O&M of both the AIWW and Intracoastal Waterway (IWW) was executed on 3 September 1997. Since that date, FIND has provided over $65,000,000 for the O&M of the AIWW and IWW.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Central & Southern Florida (C&SF), FL 2/

AUTHORIZATION: Flood Control Acts of 1948, 1954, 1958, 1960, 1962, 1965, and 1968; Water Resources Development Act (WRDA) of 1992, 1996, and 2000

LOCATION AND DESCRIPTION: The project, covering an area of approximately 16,000 square miles, lies within the southeasterly 18 counties of Florida, but also includes the upper St. Johns River Basin located in the northeastern section of the project; the Kissimmee River Basin in the central section; the Lake Okeechobee-Everglades in the central and southwestern section; and East Coast-Everglades in the southeastern section. The project provides for flood relief and water conservation and provides principally for an East Coast Protective Levee extending from Homestead area north to eastern shore of Lake Okeechobee near St. Lucie Canal; three conservation areas for water impoundment in Everglades area west of East Coast Protective Levee, with control structures to effect transfer of water as necessary; local protection works along lower east coast; encirclement of Lake Okeechobee agricultural area by levees and canals; enlargement of portions of Miami, North New River, Hillsboro, and West Palm Beach canals; enlargement of existing Lake Okeechobee levees and construction of new levees on the northeast and northwest shores of the lake; increased outlet capacity for improved control of Lake Okeechobee; floodway channels in the Kissimmee River Basin, with suitable control structures to prevent over drainage; an interrelated system of canals, levees, pumping stations and structures in southwest Dade County to control water levels; and facilities for regulation of floods in the upper St. Johns River Basin.

FISCAL YEAR 2019 ALLOCATION: $15,286,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including door/window/vent replacement; bridge inspections; dam safety inspections; a functional exercise; pest and invasive species management; and a revision of the Lake Okeechobee regulation schedule.

FISCAL YEAR 2020 ALLOCATION: $20,029,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including operational conditional assessment, formal periodic inspection and reports for Herbert Hoover Dike, critical hurricane improvements of S-77, revision of the Lake Okeechobee Regulation Schedule (LORS), Bridge Inspections, and to meet hurricane standards for the Port Mayaca Dam Spillway S-308 control building.

BUDGETED AMOUNT FOR FY 2021: M: $6,983,000 **O:** $9,090,000 **T:** $16,073,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $14,659,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including revision of the LORS and bridge inspections.

RC: $814,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including water efficiency upgrades to the W.P. Franklin North campground and install isolation valves and meters.

H: N/A

EN: $600,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $597,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

2/ The amounts and descriptions on this Justification Sheet reflect only activities funded from the Operation and Maintenance Appropriation. Activities funded from the Harbor Maintenance Trust Fund are listed on a separate Justification Sheet.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Intracoastal Waterway (IWW) - Jacksonville to Miami, FL

AUTHORIZATION: River and Harbor Acts of 1927 and 1945 (Public Law 79-14)

LOCATION AND DESCRIPTION: The entire length of the IWW lies within the Jacksonville District boundary. The inland, low use navigation project starts at the St. Johns River in Duval County at the northern most point and runs the entire length of the state where it ends in Miami Dade County. The IWW project authorizes a channel 12 feet deep by 125 feet wide from Jacksonville, FL south to Fort Pierce, Florida and 10 feet deep by 125 feet wide from Ft. Pierce, Florida south to Miami, Florida. The length of the project is approximately 349 miles.

FISCAL YEAR 2019 ALLOCATION: $2,949,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging and environmental coordination.

FISCAL YEAR 2020 ALLOCATION: $5,065,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including plans and specifications, environmental coordination, dredging, and supervision and administration.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $280,000 **T:** $280,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $280,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: A Memorandum of Agreement with the Florida Inland Navigation District (FIND) (non-Federal sponsor) to contribute funds for the operation and maintenance (O&M) of the IWW was executed on September 3, 1997. Since that date, FIND has provided over $65,000,000 for the O&M of the waterway. Over 14,000 tons of cargo passes through the IWW on an annual basis.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $343,000. There was an additional $1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Jim Woodruff Lock and Dam, FL, AL and GA

AUTHORIZATION: Authorized by Rivers and Harbors Act of 1945, as last amended by Water Resources Development Act of 1986 (P.L. 99-662).

LOCATION AND DESCRIPTION: The multiple-purpose project is located at mile 107.3 on the Apalachicola River at the confluence of the Chattahoochee and Flint Rivers (ACF), about 45 miles northwest of Tallahassee, Florida. The project includes a dam, powerhouse, navigation lock, fixed and gated spillways, 39 recreational areas and a 37,500-acre reservoir (Lake Seminole) with 532 miles of shoreline.

FISCAL YEAR 2019 ALLOCATION: $8,298,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including pest and invasive species management and a dam safety periodic assessment.

FISCAL YEAR 2020 ALLOCATION: $8,120,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an operations condition assessment and master plan compliance.

BUDGETED AMOUNT FOR FY 2021: M: $3,902,000 **O:** $4,197,000 **T:** $8,099,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $1,141,900 of which $778,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including operations condition assessment.

FRM: N/A

RC: $1,523,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including water line replacement.

H: $4,056,100 of which $419,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,378,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD - 35% and NAV - 65%. The power plant has a capacity of 43,350 kilowatts.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,016,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Okeechobee Waterway (OWW), FL 2/

AUTHORIZATION: River and Harbor Acts of 1945 and 1960 (Public Laws 79-14 and 86-645)

LOCATION AND DESCRIPTION: The high use, shallow draft inland navigation project provides a 155-mile long channel across the state from Fort Myers to Stuart and its maintained depth ranges from 8 feet to 10 feet. The waterway runs through Lake Okeechobee and consists of the Caloosahatchee River on the west side of the lake and the St. Lucie Canal on the east side. The project includes navigation locks at Ortona, Moore Haven, and St. Lucie. Additional locks at W. P. Franklin and Port Mayaca, authorized under the Central and Southern Florida project, are also located within the waterway.

FISCAL YEAR 2019 ALLOCATION: $1,322,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to replace fixtures and to update the shoreline management plan.

FISCAL YEAR 2020 ALLOCATION: $1,200,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $285,000 **O:** $1,044,000 **T:** $1,329,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $729,000 – Funds will be used for commonly performed O&M work. Funds for specific works activities include a water efficiency upgrades to the Ortona South Campground, and completion of an Operational Condition Assessment.

H: N/A

EN: $600,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: There are currently six special status species with Fish and Wildlife Service Recovery Plans inhabiting project lands and waters. These include manatee, Everglades snail kite, Okeechobee gourd, Eastern Indigo snake, crested caracara, and the wood stork. The waters and lands of the OWW project are infested with invasive species. Target species for removal include Brazilian pepper, Australian pine, air potato, Melaleuca, water hyacinth, water lettuce, alligator weed, cogon grass, sailfin catfish, fire ant, wild boar, and giant apple snail. The OWW and Central and South Florida projects contain 402 miles of shoreline and 654 miles of boundary. OWW has an annual visitation estimated at approximately 6 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $104,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.
2/ The amounts and descriptions on this Justification Sheet reflect only activities funded from the Operation and Maintenance Appropriation. Activities funded from the Harbor Maintenance Trust Fund are listed on a separate Justification Sheet.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: South Florida Ecosystem Restoration (Everglades), FL

AUTHORIZATION: The SFER Operation and Maintenance (O&M) program is comprised of the Central & Southern Florida (C&SF) project, the US Department of Interior (DOI) Modified Water Deliveries to Everglades National Park, Florida (MWD) project and the Everglades and South Florida (E&SF) Seminole Big Cypress project.

- C&SF (includes the Comprehensive Everglades Restoration Plan [CERP]) Authorization for O&M was contained in WRDA 2000 (Public Law (PL) 106-543), Section 601 (e)(4).
- MWD was authorized under PL 101-229 of the 1989 Everglades National Park Protection and Expansion Act. PL 108-7 was passed in 2003. PL 111-8 was passed in 2009.
- E&SF: Seminole Big Cypress Reservation Water Conservation Plan (part of the Critical Projects, Florida) Authorization for O&M was contained in WRDA 2000 (PL 106-543), Section 601 (e) (4).

LOCATION AND DESCRIPTION: The South Florida Ecosystem Restoration Program stretches from the southern Orlando area southward across the Everglades, the Florida Keys, the contiguous and near-shore waters of South Florida, and across South Florida from east to west including portions of the drainage areas of the Indian River Lagoon and the Caloosahatchee River, as well as population centers along the southeast and southwest coasts. It encompasses an area of approximately 18,000 square miles, which includes all or part of 18 counties in the southeast part of the State of Florida.

FISCAL YEAR 2019 ALLOCATION: $6,537,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Two CERP components were completed in FY 2019: CERP: Picayune Strand Restoration Miller Pump Station and CERP Indian River Lagoon South C-44 Pump Station.

FISCAL YEAR 2020 ALLOCATION: $13,766,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work related to Manatee Pass Gates and biological opinions for C 111 South Dade Cape Sable Seaside Sparrow, C&SF Programmatic Jeopardy Biological Opinion July 2016 (COP), Modified Water Deliveries Everglades Restoration Transition Plan (ERTP) and for the Federal cost share for O&M work that was not funded in FY 2019 and FY 2020.

BUDGETED AMOUNT FOR FY 2021: M: $1,765,000 **O:** $8,287,000 **T:** $10,052,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: $10,052,000 – Funds will be used for commonly performed O&M work. This work includes C&SF Programmatic ($950,000); C&SF C-111 South Dade ($799,000); Melaleuca ($367,000); CERP: Picayune Strand ($1,927,000); CERP: Site 1 ($110,000); CERP: Indian River Lagoon South ($564,000); CERP: Biscayne Bay Coastal Wetlands ($1,799,000); CERP: Broward County Water Preserve Area ($22,000); Modified Water Deliveries to Everglades National Park ($1,014,000); Everglades Restoration Transition Plan Biological Opinion ($1,750,000); and E&SF: Seminole Big Cypress ($750,000).

WS: N/A

OTHER INFORMATION: The SFER program currently has multiple Biological Opinions for the operation of the SFER system:

February 1990: the Service issued a jeopardy Biological Opinion (BO) for the MWD to ENP Project for the Everglade snail kite.

June 1994: the Service issued a non-jeopardy BO on the ongoing water deliveries to ENP for Cape Sable seaside sparrows.

October 1995: the Service issued a jeopardy BO on the ongoing water deliveries to ENP for Cape Sable seaside sparrows with a RPA to preclude jeopardy for the wood stork.

February 1999: the Service issued a jeopardy/adverse modification BO on the MWD to ENP Project and the C-111 South Dade Project for Cape Sable seaside sparrows.

November 2010: the Corps received a BO from USFWS for the Everglades Restoration Transition Plan. This BO is in effect until a new BO is provided for the Combined Operational Plan (Aug 2020).

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

GEORGIA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Allatoona Lake, GA

AUTHORIZATION: Flood Control Acts of 1941 and 1944, Section 4.

LOCATION AND DESCRIPTION: This 37,000 acre multi-purpose flood risk management project is located on the Etowah River, a segment of the Alabama-Coosa-Tallapoosa (ACT) Rivers System, 48 miles above Rome, Georgia. The project includes a dam, hydroelectric powerhouse, gated spillway, a reservoir, 23 Corps of Engineers recreation areas and 54 non-Federal recreation areas.

FISCAL YEAR 2019 ALLOCATION: $12,714,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary monumentation and rectification, removal of trees from saddle dikes, repair of blocked foundation drains, dam safety formal periodic inspection, and replacement of McKinney Campground's on-site sewage system to county sewage system.

FISCAL YEAR 2020 ALLOCATION: $9,051,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary monumenation and rectification, water supply agreement management and to complete the water supply reallocation study.

BUDGETED AMOUNT FOR FY 2021: M: $2,954,000 **O:** $5,786,000 **T:** $8,740,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $242,700 of which $242,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $3,438,000 Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an Environmental Review Guide for Operations inspection for project recreation facilities.

H: $4,065,300 of which $870,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $853,000 Funds will be used for commonly performed O&M work.

WS: $141,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including water supply agreement management.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 78% and FRM – 22%. This project is located 33 miles north of Atlanta, Georgia, is an important source of storage for the Atlanta Metropolitan Area's water supply and provides more than 51 million gallons per day for water supply. The project has a hydropower capacity of 82,000 kilowatts. The average annual damages prevented exceed $2.9M.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,320,000. There was an additional $4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Apalachicola, Chattahoochee and Flint (ACF) Rivers, GA, AL and FL

AUTHORIZATION: River and Harbor Act of 1945, Section 2; modified by Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: The project is located in southeast Alabama, southwest Georgia and northwest Florida. The project is a low-use inland navigation waterway and includes a 9-foot by 100-foot navigation channel in the Apalachicola River, Florida, a 9-foot by 100-foot channel in the Flint River, Georgia to the City of Bainbridge, and a 9-foot by 100-foot navigation channel on the Chattahoochee River in Alabama and Georgia to Columbus, Georgia. The project includes George W. Andrews Lock on the Chattahoochee River in Early County, Georgia. George W. Andrews Lock is in caretaker status. Jim Woodruff Lock and Dam, Walter F. George Lock and Dam, West Point Dam and Lock, and Buford Dam and Lake Sidney Lanier projects on the ACF system are each funded separately.

FISCAL YEAR 2019 ALLOCATION: $1,599,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dam safety periodic assessment and annual safety report.

FISCAL YEAR 2020 ALLOCATION: $1,618,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including annual dam safety periodic inspection and environmental compliance management.

BUDGETED AMOUNT FOR FY 2021: M: $350,000 **O:** $1,164,000 **T:** $1,514,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $1,171,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including annual dam safety inspection and operations condition assessment.

FRM: N/A

RC: $98,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $245,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: There are several threatened and endangered species in the lower part of the system.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $512,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Atlantic Intracoastal Waterway (AIWW), GA

AUTHORIZATION: Rivers and Harbors Act of 1880; House Document 295, 53rd Congress, 3rd session; House Document 41, 52nd Congress, 1st session; House Document 450, 58th Congress, 2nd session; House Document 1236, 60th Congress, 2nd session; Senate Document 6, 81st Congress, 1st session; House Document 581, 63rd Congress, 2nd session; House Document 1391, 62nd Congress, 3rd session; Senate Document 178, 68th Congress, 2nd session; Senate Document 43, 71st Congress, 2nd session; Senate Committee Print,74th Congress., 1st session; Rivers and Harbors Committee, Document 6, 75th Congress, 3rd session; House Document 618, 75th Congress, 3rd session; House Document 114, 77th Congress, 1st session; Section 107, P.L. 86-645.

LOCATION AND DESCRIPTION: The Savannah District's portion of the AIWW begins in the County of Beaufort, South Carolina at Port Royal Sound (mile 552) and continues south through the Counties of Jasper, South Carolina; Chatham, Bryan, Liberty, McIntosh, Glynn, and Camden Counties, Georgia. The end of the Savannah District's portion is at mile 713 in Cumberland Sound, GA. The low use, inland waterway crosses two deep draft harbors: Savannah Harbor and Brunswick Harbor. The project has an authorized depth of 12 feet deep mean lower low water (MLLW) and an authorized width of 90 feet inland cut and 150 feet in natural waterways.

FISCAL YEAR 2019 ALLOCATION: $2,970,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M). Funds were also used for specific work activities including dredging.

FISCAL YEAR 2020 ALLOCATION: $3,587,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $202,000 **T:** $202,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $202,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $135,000. There was an additional $17,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Buford Dam and Lake Sidney Lanier, GA

AUTHORIZATION: Authorized by Rivers and Harbors Act of 1945, as last amended by Water Resources Development Act of 1986 (P.L. 99-662).

LOCATION AND DESCRIPTION: The multiple-purpose project is located approximately 40 miles north of Atlanta, Georgia on the Chattahoochee River in the Counties of Gwinnett, Hall, Dawson, Lumpkin and Forsyth. The project includes a hydroelectric powerhouse, a 39,000 acre flood risk management reservoir with 692 miles of shoreline, and 83 recreation facilities.

FISCAL YEAR 2019 ALLOCATION: $11,206,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including environmental assessment for Buford Dam road repair, remediation actions for iron eating bacteria, master plan development, updating shoreline management database, and replacing fire suppression system.

FISCAL YEAR 2020 ALLOCATION: $10,174,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including update to the shoreline management database, water supply agreement management and cultural resource site monitoring and protection.

BUDGETED AMOUNT FOR FY 2021: M: $3,368,000 **O:** $7,403,000 **T:** $10,771,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $42,600 of which $42,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $252,700 of which $252,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $4,208,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including water line replacement.

H: $4,097,700 of which $892,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work including replacement of fisherman's warning horn system.

EN: $2,045,000 – Funds will be used for commonly performed O&M work.

WS: $125,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including water supply agreement management.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 75%, NAV – 4%, and FRM – 21%. This project is currently the main source of drinking water for the Atlanta Metropolitan area and has a hydropower capacity of 127,000 kilowatts.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,010,000. There was an additional $10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Carters Dam and Lake, GA

AUTHORIZATION: Authorized by Rivers and Harbors Act of 1945, as last amended by Water Resources Development Act of 1986 (P.L. 99-662).

LOCATION AND DESCRIPTION: This multiple-purpose 8,577 acre project is located on the Coosawattee River, a portion of the Alabama-Coosa-Tallapoosa (ACT) River System, 26.8 miles above the mouth of the river, near Chatsworth, Georgia. The project includes a dam, hydroelectric powerhouse (master plant that also controls Allatoona and Buford), a flood risk management reservoir and 10 recreational areas.

FISCAL YEAR 2019 ALLOCATION: $7,654,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including erosion repair at Spillway Gate #2, dive inspections, and replacement of generator fire suppression system.

FISCAL YEAR 2020 ALLOCATION: $7,292,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including environmental compliance management and analysis of hydropower operational data.

BUDGETED AMOUNT FOR FY 2021: M: $4,399,000 **O:** $3,384,000 **T:** $7,783,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $519,300 of which $519,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,798,000 – Funds will be used for commonly performed O&M work. Funds will used for specific work activities including operation condition assessment, water line replacement, replace door for energy efficiency and extension of underground power to volunteer village.

H: $5,106,700 of which $947,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $351,000 – Funds will be used for commonly performed O&M work.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD - 65% and FRM - 35%. The Carters project includes a main dam and a reregulation dam. Two of the four generators can be reversed and utilized as pumpback units to pump water back to the main reservoir during non-peak generation hours for reuse during peaking hours. The total hydropower capacity is more than 606,000 kilowatts and supplies approximately 2 million gallons per day in water supply.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $274,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hartwell Lake, GA and SC 1/

AUTHORIZATION: Flood Control Acts of 1950 and 1958; Water Resources Development Act of 1976

LOCATION AND DESCRIPTION: The project is located midway between Atlanta, Georgia and Charlotte, North Carolina. The dam is a concrete gravity type; 1,900 feet long and 225 feet high with a 568-foot controlled spillway. The project provides a total of 2,843,000 acre-feet of storage, with 1,416,000 acre-feet allocated to hydropower, 293,000 acre-feet to flood control, and 1,134,000 acre-feet to inactive storage.

FISCAL YEAR 2019 ALLOCATION: $12,507,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing Power Plant fire suppression system and surveying and resetting additional missing boundary line monuments.

FISCAL YEAR 2020 ALLOCATION: $11,015,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacing failed Clemson Pump Station pumps.

BUDGETED AMOUNT FOR FY 2021: M: $2,923,905 **O:** $7,819,950 **T:** $10,743,855 2/

FRM: $537,955, of which $46,955 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $3,937,000 – Funds will be used for commonly performed O&M work.

H: $4,327,900, of which $719,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,874,000 – Funds will be used for commonly performed O&M work.

WS: $67,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities shared between business lines as follows: HYD – 90% and FRM – 6%.

1/ The amounts and descriptions on this justification sheet reflect only the activities for this project funded from the Operation and Maintenance account. Corresponding project activities funded from the Harbor Maintenance Trust Fund are listed on a separate justification sheet.

2/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,622,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: J. Strom Thurmond (JST) Dam and Lake, GA and SC 1/

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The dam is located 22 miles north of Augusta, Georgia in Clarks Hill, SC, and consists of a 2,282-foot long, 200-foot high concrete section and a controlled spillway that is 1,096 feet long. It provides a total storage of 2,900,000 acre-feet. The authorized project purposes include hydropower, flood control, recreation, water supply/water quality, fish and wildlife, and navigation. However, as there is no commercial navigation traffic, the Corps no longer operates this project for navigation. The multi-purpose project's 80,000 acres of land, 70,000 acres of water, and 1,200 miles of shoreline are in portions of seven counties in the States of Georgia and South Carolina.

FISCAL YEAR 2019 ALLOCATION: $11,059,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including septic system repairs, boundary surveying and recertification, revision of the master plan, and fisheries management.

FISCAL YEAR 2020 ALLOCATION: $11,024,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including revision of the project master plan.

BUDGETED AMOUNT FOR FY 2021: M: $2,881,336 **O:** $7,564,309 **T:** $10,445,645 2/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

FRM: $65,949, of which $65,949 is for Joint activities – Funds will be used for commonly performed O&M work.

RC: $3, 481,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacement of a potable water delivery system and upgrade infrastructure at Petersburg Campground.

H: $4,920,696, of which $762,696 is for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,901,000 – Funds will be used for commonly performed O&M work.

WS: $77,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities that are shared between business lines as follows: HYD – 85% and FRM – 7%.

1/ The amounts and descriptions on this Justification Sheet reflect only activities funded from the Operation and Maintenance Appropriation. Activities funded from the Harbor Maintenance Trust Fund are listed on a separate justification sheet.

2/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,185,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Richard B. Russell (RBR) Dam and Lake, GA and SC

AUTHORIZATION: Flood Control Act of 1950 and 1958; Water Resources Development Act of 1976

LOCATION AND DESCRIPTION: The dam is located on the Savannah River, near Calhoun Falls, South Carolina, and is 59 miles north of Augusta, Georgia. The dam has a concrete section 1,884-feet long with a maximum height of 210 feet and a controlled spillway 590-feet long. It provides 1,166,200 acre-feet of storage, of which 126,800 acre-feet are allocated for hydropower, 140,000 for flood control, and 899,400 for inactive storage.

FISCAL YEAR 2019 ALLOCATION: $9,633,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including design to repair and upgrade the power plant bridge crane, the gantry crane, dam safety precise alignment survey, and dam safety tabletop emergency exercise.

FISCAL YEAR 2020 ALLOCATION: $9,139,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a periodic inspection of hydraulic steel structures and critical welds.

BUDGETED AMOUNT FOR FY 2021: M: $5,573,000 **O:** $4,322,000 **T:** $9,895,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,500 of which $3,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $797,500 of which $568,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $8,799,000 of which $1,597,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacing the Powerplant roof covering.

EN: $228,000 – Funds will be used for commonly performed O&M work.

WS: $67,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: FRM – 0.25%, HYD – 79% and REC – 20.75%. The RBR Power Plant produced 427,266 megawatt hours in FY 2018 and returned $33.4M to the U.S. Treasury.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $51,000. There was an additional $12,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: West Point Dam and Lake, GA and AL

AUTHORIZATION: Flood Control Act of 1963

LOCATION AND DESCRIPTION: The multiple-purpose project is located approximately 70 miles southwest of Atlanta, Georgia, on the Chattahoochee River in Troup and Heard Counties, Georgia, and Chambers County, Alabama. The project includes a hydroelectric powerhouse, a 26,000-acre flood damage reduction reservoir with over 500 miles of shoreline, 31,000 acres of public land, and 38 recreation facilities.

FISCAL YEAR 2019 ALLOCATION: $8,647,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including generator replacement design for Unit #1, repainting of spillway gates, and continuing shoreline management plan.

FISCAL YEAR 2020 ALLOCATION: $7,767,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work including environmental compliance, boundary inspection and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $3,308,000 **O:** $4,824,000 **T:** $8,132,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $22,000 of which $22,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $278,400 of which $173,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2,787,400 of which $314,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $3,914,400 of which $521,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,129,800 of which $124,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD - 45%, NAV - 2%, FRM - 15%, ENS – 11% and REC - 27%. The project has a hydropower capacity of 73,375 kilowatts.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,590,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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PPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Barbers Point Deep Draft Harbor, Oahu, HI

AUTHORIZATION: River and Harbor Act of 1965, PL 89-298

LOCATION AND DESCRIPTION: The Barbers Point Harbor is a Federally-authorized, medium-use, deep-draft harbor on Oahu on the Ewa plain about 20 miles west of Honolulu, and the associated Pacific Regional Visitor Center (PRVC) which is located on the second floor of historic Battery Randolph at Fort DeRussy adjacent to Waikiki Beach. The PRVC functions as an informational visitor center, designed to educate the public on the Corps' work in the Pacific and focuses on the Honolulu District's Civil Works Water Resources Development Program. It serves over 76,000 visitors a year.

FISCAL YEAR 2019 ALLOCATION: $292,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) activities.

FISCAL YEAR 2020 ALLOCATION: $354,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M activites. Funds are also being used for specific work including office space renovations.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $305,000 **T:** $305,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $305,000 – Funds will be used for commonly performed O&M.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Pacific Regional Visitor Center has been operational since 1983 and visitors include foreign military and school students. The Pacific Regional Visitor Center is located on the second floor of historic Battery Randolph at Fort DeRussy, Waikiki. Battery Randolph is listed on the National Register of Historic Sites and is one of 16 coastal fortifications built by the Corps between 1906 and 1917 for the protection of Honolulu and Pearl Harbors.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $130,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Albeni Falls Dam, ID

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516) and Section 4 of the Flood Control Act of 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Albeni Falls Dam is 26 miles west of Sandpoint, Idaho and 4 miles east of Newport, Washington on the Pend Oreille River in Bonner County, Idaho. It is located downstream of Avista's Cabinet Gorge Dam and upstream of the Pend Oreille Utility District's Box Canyon Dam, approximately 40 miles north of Spokane, Washington. The dam is a 90-foot-high concrete gravity, gate-controlled structure with a spillway 472 feet long. Overall length, including the non-overflow abutment section, is 755 feet. Ten spillway gates are the vertical lift roller-chain type. The powerhouse contains three Kaplan turbines and generators for a total installed rated capacity of 42.6 megawatts. The project is multi-purpose, providing flood control, power generation, and regulation of stream flow for 15 downstream federal and non-federal hydroelectric projects. Lake Pend Oreille water storage seasonally augments flows on the Columbia and Pend Oreille Rivers for power production downstream. Operation of Albeni Falls Dam project allowed for installation of additional units at Chief Joseph and McNary Dams, increasing the Federal Columbia River Power System firm power capabilities by 251 megawatts. Other purposes include navigation, recreation, and fish and wildlife conservation.

FISCAL YEAR 2019 ALLOCATION: $1,265,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funding was also used for specific work activities including the National Environmental Policy Act (NEPA) analysis of the Columbia River Basin operations, installation of boater safety boom, and spillway gate recoating and weld repair.

FISCAL YEAR 2020 ALLOCATION: $1,290,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including NEPA analysis of the Columbia River Basin operations, spillway gate recoating and weld repair, bank stabilization and boundary and flowage easement surveying and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $461,000 **O:** $871,000 **T:** $1,332,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $31,100, of which $31,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $30,900 of which $30,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,237,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $33,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary and flowage easement surveying and maintenance.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV – 50% and FRM – 50%. Albeni Falls Dam

project hosts the largest recreation program in Seattle District. It supports four major recreation areas and two day use areas that include campgrounds, fishing docks, boat ramps, swim beaches, picnicking, playgrounds, trails, interpretation, and a Class B Visitor Center with displays, restrooms, a theater, and tours. The project produces approximately 179,000 megawatt-hours of electricity, enough for 16,000 homes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $75,000. There was an additional $382,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Dworshak Dam and Reservoir, ID

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: A multi-purpose project located in Northern Idaho on the north fork of the Clearwater River; near Orofino, ID. The project is part of the Federal Columbia River Power System. The project includes the dam, a reservoir that has a gross storage capacity of 3,468,000 ac-ft of water, a powerhouse with an installed capacity of 400 Megawatts, 30,935 acres of land with recreation facilities and wildlife mitigation habitat, and the Dworshak National Fish Hatchery.

FISCAL YEAR 2019 ALLOCATION: $3,453,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including monolith 37/38 and 16/17 foundation joint drain repairs and the preparation of environmental documentation for Columbia River System operations.

FISCAL YEAR 2020 ALLOCATION: $3,866,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the preparation of environmental documentation for Columbia River System operations.

BUDGETED AMOUNT FOR FY 2021: M: $602,000 **O:** $2,148,000 **T:** $2,750,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $260,000, of which $260,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $1,396,000, of which $1,396,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $858,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $236,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the five year review of the master plan.

WS: N/A

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities shared between business lines as follows: NAV – 16% and FRM – 84%. The dam is the highest straight-axis concrete dam in the Western Hemisphere with a structural height of 717 ft.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,537,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lucky Peak Dam and Lake, ID

AUTHORIZATION: Flood Control Act of 1946 (P.L. 79-526)

LOCATION AND DESCRIPTION: Project is located in Southern Idaho on the Boise River, 15 minutes from Boise, Idaho. The project includes the dam, and a flood control and irrigation reservoir that has a gross storage capacity of 306,000 acre-feet of water. The reservoir and 4,288 acres of land provides recreation facilities to over a million visitors annually and valuable wildlife mitigation habitat.

FISCAL YEAR 2019 ALLOCATION: $9,393,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including continued slide gate cylinder repair work, replacement of the guard rails along both sides of the dam crest road, paving and striping of main access road and design and replacement of both emergency gate hoists.

FISCAL YEAR 2020 ALLOCATION: $3,368,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including continued slide gate cylinder repair work, a building energy audit and to install a new boundary fence to reduce encroachment.

BUDGETED AMOUNT FOR FY 2021: M: $521,000 **O:** $1,938,000 **T:** $2,459,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,478,000 – Funds will be used for commonly performed O&M work.

RC: $786,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $195,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including to update the master plan.

WS: N/A

OTHER INFORMATION: The project consists of the dam, Lucky Peak Lake and associated federal lands. The project provides for flood damage reduction, recreation, wildlife habitat and irrigation. Since 1961, more than $2.4 million in potential flood damages have been prevented by the Lucky Peak Project.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,476,000. There was an additional $9,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

ILLINOIS

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Carlyle Lake, IL

AUTHORIZATION: Flood Control Acts of 1938, 1944, and 1958.

LOCATION AND DESCRIPTION: The project, completed in 1967, is located on Kaskaskia River, approximately 107 miles above its mouth, near the community of Carlyle, Illinois. Portions of the project are situated in Clinton, Fayette, Bond, and Marion Counties. Carlyle Lake is the largest man-made lake in Illinois, with over 26,000 acres of water and 11,000 acres of public land. It provides flood control, water quality control and water supply to nearby communities, recreation, and fish and wildlife conservation. It is authorized to augment navigation flows downstream on the Kaskaskia River.

FISCAL YEAR 2019 ALLOCATION: $5,885,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also being used for specific work activities including environmental review guide for operations inspections and reporting.

FISCAL YEAR 2020 ALLOCATION: $6,094,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including implementation of modern geospatial data and system technologies, real estate boundary line invasive species management, monument replacement and encroachment resolution.

BUDGETED AMOUNT FOR FY 2021: M: $2,286,000 **O:** $4,284,000 **T:** $6,570,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,731,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a hydraulic steel structures inspection.

RC: $2,990,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activity to make efficiency improvements at Coles Creek recreation area.

H: N/A

EN: $810,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activity to replace the pump at Saddle Dam III wetland well.

WS: $39,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: FY 2018 project visitation was 2.39 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $37,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Chicago River, IL

AUTHORIZATION: Rivers and Harbors Acts of 1899, 1902, 1907, and 1946

LOCATION AND DESCRIPTION: The Chicago River is located in northeastern Illinois, within the corporate limits of the City of Chicago and Cook County. The project consists of a navigation channel that is 2.97 miles long and 21 feet deep from Michigan Avenue to North Avenue. A navigation channel, 3.7 miles long and 9 feet deep from North Avenue to Addison Street has also been authorized, but not constructed. The project also includes a responsibility for water control, as well as routine and emergency monitoring of waterways within the Chicago District.

FISCAL YEAR 2019 ALLOCATION: $283,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $606,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $619,000 **T:** $619,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $619,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $8,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Chicago Sanitary and Ship Canal Dispersal Barriers, IL

AUTHORIZATION: Section 3061(b)(1), Water Resources Development Act 2007 (P.L. 110-114).

LOCATION AND DESCRIPTION: The Chicago Sanitary and Ship Canal (CSSC) is a man-made waterway that connects the Chicago and Des Plaines Rivers. It is a part of the Chicago Area Waterway System, the only continuous waterway connection between the Great Lakes and Mississippi River basins. The dispersal barrier system was developed to deter the spread of invasive fish species between these watersheds. It includes the construction and operation of three electrical barriers, known as Barrier I, Barrier IIA, and Barrier IIB. Barrier I was constructed as a demonstration project, has been operating in the CSSC since 2002, and is currently being upgraded to a permanent status using previously appropriated funds. Permanent Barrier I is scheduled for full time operation in 2021. A permanent electric barrier (Barrier II) was implemented in two independent stages (A & B). Barrier IIA has been operational since April 2009. Barrier IIB has been operational since April 2011.

FISCAL YEAR 2019 ALLOCATION: $18,731,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for operation and maintenance of the entire electric dispersal barriers system (Demonstration Barrier, Barrier IIA, & Barrier IIB), a backup generator maintenance support contract, a contract for clearing and trimming of vegetation along the Des Plaines River barrier, a contract to replace the narrow array electrodes at Barrier IIB, site security to prevent unauthorized visitors and access, cybersecurity, real estate support, field and/or laboratory research to verify the effectiveness of the barriers and optimize their operation, labor, power to the building, fuel for the Backup Generators, utility bills..

FISCAL YEAR 2020 ALLOCATION: $14,304,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for operation and maintenance of the entire electric dispersal barriers system (Demonstration Barrier, Barrier IIA, & Barrier IIB) and backup generators, including project management, contracting, environmental support, site security, cybersecurity, utility bills, vehicles, labor, and clearing and trimming of vegetation along the Des Plaines River barrier as well as ongoing telemetry work to verify the effectiveness of the barriers and to optimize their operation. Funds are also being used to complete an Efficacy Study Interim V report, which will use expert elicitation to establish a minimum fish length for deterrence that will set the goal for optimization of barrier operations.

BUDGETED AMOUNT FOR FY 2021: M: $3,757,000 **O:** $10,544,000 **T:** $14,301,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: $14,301,000 – Funds will be used for operation and maintenance of the entire electric dispersal barriers system (Barriers I, IIA, & IIB) and the structural solutions to reduce the risk of fish bypass during flooding of the neighboring Des Plaines River and Illinois and Michigan Canal; site security; ensure compliance with Federal & local laws and regulations; and telemetry/fish monitoring.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,505,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Farm Creek Reservoirs, IL

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project includes two reservoirs (Fondulac and Farmdale) located on tributary streams to the Illinois Waterway upstream of Peoria, Illinois providing flood control for East Peoria, Illinois.

FISCAL YEAR 2019 ALLOCATION: $459,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities to include resolution of real estate encroachments below the emergency spillway and at Fondulac Reservoir.

FISCAL YEAR 2020 ALLOCATION: $589,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including real estate and legal costs to research titles, establish property line and needed coordination to sell the unneeded property, pest and invasive species management and Farmdale boundary and flowage easement monumentation.

BUDGETED AMOUNT FOR FY 2021: M: $2,261,000 **O:** $451,000 **T:** $2,712,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,458,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities to include Farmdale and Fondulac dam concrete replacement.

RC: N/A

H: N/A

EN: $254,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $141,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Illinois Waterway (MVR Portion), IL and IN

AUTHORIZATION: Rivers and Harbors Acts 1927 and 1930

LOCATION AND DESCRIPTION: The project includes a total of 268 river miles of 9-foot commercial navigation channel from Chicago to LaGrange Lock and Dam, near Beardstown, IL with eight locks and seven dams. Recreation facilities include a visitor center at Starved Rock Lock and Dam.

FISCAL YEAR 2019 ALLOCATION: $77,543,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including the repair of Dresden Island L/D guide wall, nose pier, wall armor and fenders, and to replace Dresden Island L/D fill-empty culverts, valve anchorages and sector gears, to update emergency action plans and to conduct dam safety exercises at Lockport and Brandon Road L/Ds.

FISCAL YEAR 2020 ALLOCATION: $86,998,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging; major maintenance at LaGrange L/D, installation and rehabilitation of bulkhead recesses at both Brandon Road and Dresden Island L/Ds, procure miter gates for Brandon Road and Dresden Island L/Ds, supervision and administration of previously award contracts for Marseilles Bulkhead Recesses and Peoria Base wall repair.

BUDGETED AMOUNT FOR FY 2021: M: $24,310,000 **O:** $18,103,000 **T:** $42,413,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $41,853,000 – Funds will be used for water control and water quality management, cultural resources, construction and maintenance of dredge material disposal facilities, and dam safety instrumentation for navigation. Funds will also be used for specific work activities including dredging, to initiate the Starved Rock L/D major rehabilitation report, to initiate the Brandon Road L/D major rehabilitation report, to initiate the Dresden Island L/D major rehabilitation report, to replace Peoria Miter Gate anchorages and to replace the Lockport L/D service gate.

FRM: N/A

RC: $439,000 – Operation and management of recreation areas and facilities.

H: N/A

EN: $121,000 – Real estate management, boundary maintenance, cultural resources preservation, pest and invasive species management, wildlife habitat management.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $566,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Illinois Waterway (MVS Portion), IL and IN

AUTHORIZATION: Rivers and Harbors Acts of 1927 and 1930

LOCATION AND DESCRIPTION: The portion of the Illinois Waterway within the boundaries of the St. Louis District extends from the mouth of the Illinois River at Grafton, Illinois to the tail water of LaGrange Lock and Dam at mile 80.15. The project operates and maintains the nine-foot navigation channel by dredging, channel patrol, water management, environmental compliance, stewardship of 16,000 acres of public lands and waters and river engineering. This is a high use waterway/navigation project.

FISCAL YEAR 2019 ALLOCATION: $2,039,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging.

FISCAL YEAR 2020 ALLOCATION: $2,089,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging and boundary maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $1,509,000 **O:** $619,000 **T:** $2,128,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $1,904,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activity including dredging.

FRM: N/A

RC: N/A

H: N/A

EN: $224,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The Illinois Waterway accounts for approximately 50 percent of the commercial commodity tonnage shipped south through St. Louis Harbor. The lower Illinois River project lands and waters contain important Federal and State managed wildlife areas and heavily utilized recreational features. This area includes approximately 16,000 acres of land, six state conservation areas, and one state park.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $22,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Kaskaskia River Navigation, IL

AUTHORIZATION: Rivers and Harbors Act of 1962, Section 101; Water Resources Development Act (WRDA) of 1996, Section 321, Public Law (PL) 104-303; WRDA of 2000, Section 311, PL 106-541.

LOCATION AND DESCRIPTION: The project is located in south-central Illinois and empties into the Mississippi River 118 miles above the Ohio River. The project consists of a 36-mile navigation channel; a 600–foot lock; a dam with gated spillway; 3,000 acres of fee and easement lands; 6,000 acres of flowage easement; three barge terminals; two marinas; four major recreation areas with boat ramps; and numerous minor access points. Authorized purposes are navigation, recreation, fish and wildlife, and habitat restoration. This is a low use waterway/navigation project and safe harbor.

FISCAL YEAR 2019 ALLOCATION: $2,308,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging.

FISCAL YEAR 2020 ALLOCATION: $3,256,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $536,000 **O:** $1,670,000 **T:** $2,206,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $1,863,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging.

FRM: N/A

RC: $208,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $135,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Commercial tonnage through lock was 1.4 million in FY 2018.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $546,000. There was an additional $13,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lake Shelbyville, IL

AUTHORIZATION: Flood Control Acts of 1944 and 1958

LOCATION AND DESCRIPTION: The project is located in Shelby and Moultrie counties and provides flood control, water supply, recreation, conservation of fish and wildlife, and water quality control and augments navigation flows downstream on the Kaskaskia River.

FISCAL YEAR 2019 ALLOCATION: $6,309,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed O&M work. Funds were also used for specific work activities including painting metal works on the main dam, digitization of flowage easements for GIS, and replace failing concrete collection ditches.

FISCAL YEAR 2020 ALLOCATION: $6,022,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including implementation of modern geospatial data and system technologies, pest and invasive species management and real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $2,075,000 **O:** $4,235,000 **T:** $6,310,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,329,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities repair tainter gate gear reducers and brakes.

RC: $3,131,000 – Funds will be used for specific work activities including t efficiency improvements at Coon Creek and Opossum Creek recreation areas.

H: N/A

EN: $811,000 – Funds will be used for commonly performed O&M work.

WS: $39,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: FY 2018 project visitation was 2.33 million visits.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $222,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mississippi River between Missouri River and Minneapolis (MVR Portion), IL

AUTHORIZATION: Rivers and Harbors Acts 1927 and 1930

LOCATION AND DESCRIPTION: The project consists of a 314 river-mile reach of 9-foot commercial navigation channel from Guttenberg, IA, downstream to Saverton, Missouri. It includes 14 locks and 11 dams at 12 sites from locks 11 through 22. Recreation facilities include 25 public recreation areas and the visitor center located at Lock and Dam (L&D) 15.

FISCAL YEAR 2019 ALLOCATION: $74,282,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repair L/D 15 lower guide wall and dam service bridge, dewater L/Ds 11 and 18, Phase I of Mississippi River Project Office Master Plan, procurement of miter gates for L/Ds 12 and 15, repair dam 18 concrete, replace Lock 19 guard gate, repair concrete monoliths at L/D 17, repair L/D 20 structural support beam and anchorage system, install relief wells at L/Ds 11, repair L/D 21 tainter and roller gates, repair L/D 11 tainter gate chains, and repair L/D 22 Dam.

FISCAL YEAR 2020 ALLOCATION: $52,036,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging, activities associated with dredge placement sites, real estate resolution of encroachments and trespasses, supervision and administration of previously awarded contracts, and to replace the shower building at Clark's Ferry Campground.

BUDGETED AMOUNT FOR FY 2021: M: $48,190,000 **O:** $30,469,000 **T:** $78,659,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $74,851,000 – Funds will be used for commonly performed O&M work. Funds will be also be used for specific work activities including to replace miter gates at locks 18, 17, 21 and 22 and initiate a major rehabilitation report on L/D 18.

RC: $2,587,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $1,221,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,255,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mississippi River between Missouri River and Minneapolis (MVS Portion), IL

AUTHORIZATION: Rivers and Harbors Act of 1930, as amended by Public Resolution No. 10 (1932).

LOCATION AND DESCRIPTION: The project extends from the mouth of the Missouri River at St. Louis upstream to the tail water of Lock and Dam (L&D) 22. It is a high use waterway/navigation project that includes 105 miles of river, a nine-foot navigation channel via a system of locks and dams; regulating works, dredging, stewardship of 50,000 acres of public lands, compliance, and 46 recreational access areas.

FISCAL YEAR 2019 ALLOCATION: $43,713,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging, dike and revetment repairs, complete the EISA update at Mel Price, and miter gate anchorage replacement at L/Ds 24, 25, and Mel Price.

FISCAL YEAR 2020 ALLOCATION: $27,353,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including engineering during construction of previously awarded contracts and inspections of hydraulic steel structures at Lock 24, 25 and Mel Price, dredging, cultural resource site monitoring and protection and real estate boundary monumentation, rectification and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $32,076,000 **O:** $8,714,000 **T:** $40,790,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $38,527,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a hydraulic steel structures inspection, repair lower guidewall at Lock 25, arc flash improvements, and dredging.

FRM: N/A

RC: $1,283,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $980,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Total commercial commodities passing through the project in FY 2017 were 61 million tons. FY 2017 project public visitation was 1.4 million visitors.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $81,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Rend Lake, IL

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is located near Benton, Illinois in Franklin and Jefferson Counties. The project provides flood control, water supply, recreation, and conservation of fish and wildlife. The earth dam is located on the Big Muddy River at mile 103.7 and two sub-impoundment dams are located on the upper arms of the lake.

FISCAL YEAR 2019 ALLOCATION: $5,652,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including full boundary maintenance.

FISCAL YEAR 2020 ALLOCATION: $6,072,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including surveying costs to replace missing monuments and correct boundary line issues, a sedimentation study and pest and invasive species boundary maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $2,391,000 **O:** $4,352,000 **T:** $6,743,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,509,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a toe drain inspection.

RC: $3,535,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including efficiency improvements at South Marcum and North Sandusky recreation areas.

H: N/A

EN: $660,000 – Funds will be used for commonly performed O&M work.

WS: $39,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: FY 2018 project visitation was 1.81 million

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $184,000. There was an additional $5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Brookville Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Brookville Lake is located in Franklin and Union Counties on the East Fork of the Whitewater River about one-half mile above Brookville, IN. The dam is an earthen-fill structure, 181 feet high and 2,800 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply, and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,814,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including cleaning relief wells, installing a two-ton jib crane and chain hoist, facility security assessments, updating the Master Plan, and a freshwater mussel survey.

FISCAL YEAR 2020 ALLOCATION: $5,528,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairing leaking seals on main emergency gates, riprapping upstream side of dam, pollinator habitat establishment and a freshwater mussel survey.

BUDGETED AMOUNT FOR FY 2021: M: $522,000 **O:** $1,209,000 **T:** $1,731,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,311,000 – Funds will be used for commonly performed O&M work

RC: $94,000 – Funds will be used for commonly performed O&M work

H: N/A

EN: $318,000 – Funds will be used for commonly performed O&M work

WS: $8,000 – Funds will be used for commonly performed O&M work

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $237,000. There was an additional $44,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cagles Mill Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cagles Mill Lake lies in Owen and Putnam Counties in south-central Indiana near Poland, midway between Indianapolis and Terre Haute. The dam is located on Mill Creek, 2.8 miles above its confluence with Big Walnut Creek, forming the Eel River. The dam is earthen- and rock-fill with gate controlled outlet works and uncontrolled open spillway. The structure is 150 feet high and 900 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,202,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,206,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including threatened and endangered species surveys.

BUDGETED AMOUNT FOR FY 2021: M: $182,000 **O:** $1,303,000 **T:** $1,485,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,320,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including bridge inspections and evaluations, movement monument surveys along with periodic assessment and inspections.

RC: $45,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $120,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented a total of $371,000,000 in flood damages since 1953.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $30,000. There was an additional $20,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cecil M. Harden Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cecil M. Harden Lake is located in west-central Indiana about 50 miles west of Indianapolis and lies in Parke and Putnam Counties near Ferndale. The dam is located on Big Raccoon Creek approximately 33 miles upstream of its confluence with the Wabash River. The dam is constructed from rolled earth with gate controlled outlet works and uncontrolled open spillway and is 119 feet high and 1,860 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,250,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,191,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $70,000 **O:** $1,366,000 **T:** $1,436,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,314,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including movement monument surveys.

RC: $40,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $82,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented a total of $185,000,000 in flood damages since 1960.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,000. There was an additional $23,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: J. Edward Roush Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: J. Edward Roush Lake is located on the Wabash River in northeastern Indiana about 20 miles southwest of Ft. Wayne and 80 miles northeast of Indianapolis. The dam site is at mile 411.4 of the Wabash River and lies in Huntington and Wells Counties, Indiana. The dam is rolled earthen-fill with a concrete center section. The dam contains the emergency spillway with three crest gates and has a Corps operated and maintained levee and pump plant that protects the City of Markle, Indiana approximately seven miles upstream from the dam. The dam is 91-feet high and 6,500-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,380,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dam safety activities and removing invasive woody vegetation on four acres.

FISCAL YEAR 2020 ALLOCATION: $1,852,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are being used for specific work activities including bridge inspections, installation of a safety railing and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $882,000 **O:** $1,216,000 **T:** $2,098,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,900,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including bridge inspections and evaluations, fall protection safety railing, Markle transformer substation upgrade.

RC: $55,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $143,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented a total of $400,000,000 in flood damages since 1967.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,000. There was an additional $24,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mississinewa Lake, IN

AUTHORIZATION: The Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Mississinewa Lake is located in north central Indiana about seven miles southeast of Peru and 65 miles northeast of Indianapolis. The dam is at mile 7.1 on the Mississinewa River, a tributary of the Wabash River. The project lies in Miami, Wabash, and Grant Counties. The dam is earthen-fill with gate controlled outlet works and uncontrolled open spillway. It is 140-feet high and 8,000-feet long. The project was authorized as a multi-purpose, flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water supply.

FISCAL YEAR 2019 ALLOCATION: $1,280,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dam safety inspection activities.

FISCAL YEAR 2020 ALLOCATION: $2,280,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including retreat channel bank stabilization and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $1,662,000 **O:** $1,257,000 **T:** $2,919,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,470,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including tower raw water intake closure, replace access covers on security system and repair retreat channel, gutters, access steps.

RC: $58,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $391,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including master plan and a forestry mulching machine.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented a total of $612,300,000 in flood damages since 1967.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $5,000. There was an additional $12,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Monroe Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Monroe Lake lies mostly in Monroe County with portions in Brown and Jackson Counties in south central Indiana. It combines the North, Middle, and South Forks of Salt Creek. The dam is located about 26 miles from Salt Creek's confluence with the East Fork of the White River and is about 10 miles south of Bloomington. The dam is earthen core and rock shell with gate-controlled outlet works and uncontrolled open spillway. The dam is 93-feet high and 1,350-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water supply.

FISCAL YEAR 2019 ALLOCATION: $1,379,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dam safety program inspection activities.

FISCAL YEAR 2020 ALLOCATION: $1,316,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacement of "J" seals on the maintenance bulkhead.

BUDGETED AMOUNT FOR FY 2021: M: $152,000 **O:** $1,226,000 **T:** $1,378,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,204,000 – Funds will be used for commonly performed O&M work.

RC: $52,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $114,000 – Funds will be used for commonly performed O&M work.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $104,000,000 in flood damages since 1965.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,000. There was an additional $38,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Patoka Lake, IN

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298) managed under P.L. 89-72

LOCATION AND DESCRIPTION: Patoka Lake is located 118.3 miles above the mouth of the Patoka River about 13 miles northeast of Jasper and 95 miles south of Indianapolis in southern Indiana. The lake lies in portions of Dubois, Orange, and Crawford Counties in Indiana. The dam is earthen- and rock-fill with gate controlled outlet works and uncontrolled open spillway. The dam is 84 feet high and 1,550 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,523,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work including inspection activities, installing piezometers, relining the road culvert, adding slush grout to the tailwater retreat channel, adding shoreline protection to the dike, and cultural resources site monitoring and protection.

FISCAL YEAR 2020 ALLOCATION: $1,199,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairs to wet wells in the control tower and cultural resources site monitoring and protection.

BUDGETED AMOUNT FOR FY 2021: M: $76,000 **O:** $1,111,000 **T:** $1,187,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,039,000 – Funds will be used for commonly performed O&M work.

RC: $49,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $91,000 – Funds will be used for commonly performed O&M work.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $274,100,000 in flood damages since 1978.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $98,000. There was an additional $25,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Salamonie Lake, IN

AUTHORIZATION: The Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Salamonie Lake is located 34 miles southwest of Ft. Wayne in Wabash and Huntington Counties in north-central Indiana. The dam is at mile 3.1 on the Salamonie River, a tributary of the Wabash River. The dam is earthen-fill with gate-controlled outlet works and uncontrolled open spillway. It is 133-feet high and 6,100 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,319,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $4,939,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacement of 20 ton hoist in control tower, pest and invasive species management, and repair of the Retreat Channel, toe drain and supporting structures.

BUDGETED AMOUNT FOR FY 2021: M: $2,220,000 **O:** $1,257,000 **T:** $3,507,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,229,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities to repair outlet erosion protection and tower raw water intake closure.

RC: $56,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $222,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented a total of $503.8 million in flood damages since 1967.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,000. There was an additional $15,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Coralville Lake, IA

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: The project is located on the Iowa River, approximately 14 miles north of Iowa City, Iowa, County of Johnson. Coralville Lake is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. Conservation pool is 4,900 acres and the flood control pool is 24,800 acres with 475,000 acre-feet of storage.

FISCAL YEAR 2019 ALLOCATION: $5,718,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including fabrication of bulkheads, repair of the control tower concrete and sill plates, replace control tower windows, repair dam road slide area, convert asphalt parking lot to concrete, install new water lines and hydrant infrastructure located within the Sugar Bottom Campground and Day Use Area, and complete the Veteran's Trail rehabilitation.

FISCAL YEAR 2020 ALLOCATION: $4,728,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to replace the overhead crane cable and sheave and real estate boundary and flowage easement inspection.

BUDGETED AMOUNT FOR FY 2021: M: $855,000 **O:** $4,172,000 **T:** $5,027,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,686,000 – Funds will be used for commonly performed O&M work.

RC: $1,493,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including roof replacement.

H: N/A

EN: $848,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including real estate boundary monumentation and rectification.

WS: N/A

OTHER INFORMATION: Cumulative damages prevented are more than $606 million. The project includes 25 thousand acres of fee title lands and 11 recreation area sites. Population at risk is 170 thousand.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $984,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Missouri River Fish and Wildlife Recovery, IA, KS, MO, MT, NE, ND and SD

AUTHORIZATION: Water Resource and Development Act (WRDA) 1986 & 1999 and WRDA 2007, Fish and Wildlife Coordination Act of 1958 (P.L. 85-624), and Endangered Species Act of 1973 (P.L. 93-205)

LOCATION AND DESCRIPTION: The Missouri River Recovery Program (MRRP) is a mitigation project that provides habitat features on numerous land tracts to restore native vegetation and includes terrestrial and aquatic features, chutes, and riparian zone on the lower 800 miles of the Missouri River extending from the mouth at St. Louis, Missouri, to River Mile 735 located at Sioux City, Iowa. The project is split between Kansas City and Omaha Districts at River Mile 498 located at Rulo, Nebraska.

FISCAL YEAR 2019 ALLOCATION: $4,827,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $6,096,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairs to mitigation lands.

BUDGETED AMOUNT FOR FY 2021: M: $2,098,000 **O:** $2,567,000 **T:** $4,665,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $4,665,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Currently there have been 28 terrestrial sites and 40 shallow water habitat restoration sites completed and transitioned to O&M. In addition to mitigating the adverse environmental effects of the Missouri River Bank Stabilization and Navigation Project (BSNP), Missouri River Recovery Program mitigation project lands provide areas to develop habitat that assists in the recovery of the Federally listed endangered pallid sturgeon and ensures compliance with the U.S. Fish and Wildlife's Biological Opinion on the operation and maintenance of the Missouri River mainstem reservoir system, BSNP, and the Kansas River reservoir system. Mitigation sites also provide extensive benefit to native fish and wildlife populations and opportunities for public use to include hunting, fishing, hiking and wildlife viewing. This work is operation and maintenance of the Missouri River Fish and Wildlife Recovery efforts and is not to negatively impact the Missouri River navigation channel or authorized purposes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $189,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2020 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Missouri River, Sioux City to the Mouth, IA, KS, MO and NE

AUTHORIZATION: Flood Control Acts of 1912 (P.L. 62-241), 1917 (P.L. 64-367), 1925 (P.L. 68-585), 1927 (P.L. 70-560), 1930 (P.L. 73-67), 1935 (P.L. 73-409), 1945 (P.L. 79-14), 1970 (P.L. 91-611)

LOCATION AND DESCRIPTION: The Missouri River Bank Stabilization and Navigation Project (BSNP) extends from the mouth at St. Louis, Missouri, to River Mile 735 at Sioux City, Iowa. It is an open-river-type waterway with sinuous bend-ways without locks or dams that utilizes river flows to establish and provide shallow-draft, low-use commercial transportation through a system of more than 8,000 dike and revetment structures, while minimizing bank erosion and channel meandering. The Project is split between Kansas City and Omaha Districts at River Mile 498 at Rulo, Nebraska.

FISCAL YEAR 2019 ALLOCATION: $15,057,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a dock barge replacement.

FISCAL YEAR 2020 ALLOCATION: $15,638,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including maintenance and repair to navigation structures.

BUDGETED AMOUNT FOR FY 2021: M: $5,237,000 **O:** $4,228,000 **T:** $9,465,000 1/

ESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $9,328,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: $137,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The Missouri River, a major tributary of the Mississippi River, has a long history of regional significance. The project estimated tonnage transported (based on local boat report and industry number for 2017 is 6.7 million tons; has 38 boat ramps, 20 city river fronts and/or marinas; and supports recreational boating and fishing along the river. Multiple public and industrial water supplies draw water from the Missouri River including, Kansas City, St. Joseph, Iatan Power Plant and the Callaway Nuclear Power Plants. Furnished potable water exceeds 1.0 million gallons per hour. The Bank Stabilization and Navigation structures support all the authorized purposes of the project by providing public and commercial water supplies, recreation, irrigation, railroads, highways, agriculture and flood protection levees, and flood walls.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $633,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Rathbun Lake, IA

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project is located on the Chariton River, near Centerville, Iowa, Counties of Wayne, Lucas, Monroe and Appanoose. The project includes an earth-fill dam 10,600 feet long with a crest about 102 feet above the original streambed. The dam has gated outlet works and an uncontrolled chute-type spillway, and total reservoir storage capacity of 570,500 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $3,055,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a relief well rejuvenation.

FISCAL YEAR 2020 ALLOCATION: $2,796,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $308,000 **O:** $2,513,000 **T:** $2,821,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,487,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety reporting.

RC: $960,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $364,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including real estate-boundary monumentation, clearing and delineation.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Cumulative flood damages prevented since the project was put into service in 1968 has totaled $294.5 million with an average annual economic benefit of $12.6 million. The project encompasses 34 thousand land acres, 11 thousand water acres with 155 miles of shoreline, and provides 2.5 billion gallons of water annually to approximately 80 thousand customers of the Rathbun Regional Water Association (one of the largest rural water systems in the Country). The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $84,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Red Rock Dam and Lake Red Rock, IA

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Red Rock Dam is located on the Des Moines River, approximately 40 miles southeast of Des Moines, Iowa, County of Marion. Lake Red Rock is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. Conservation pool is 15,250 acres which makes it Iowa's largest lake and the storage volume is 1,436,000 acre-feet at flood pool level.

FISCAL YEAR 2019 ALLOCATION: $5,994,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to conduct an emergency action plan update and dam safety exercise, prepare plans and specifications for repairs to Pleasant Hill concrete wall and apron, water line replacements and meter installation at multiple recreation areas, and replace the project administration office heating, ventilation and air conditioning.

FISCAL YEAR 2020 ALLOCATION: $7,401,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to install permanent exterior lighting and security cameras, development of plans and specifications for a construction contract to repair concrete wall and apron, real estate boundary and flowage easement inspection, to replace the shower building at the North Overlook Campground and provide electrical repairs

BUDGETED AMOUNT FOR FY 2021: M: $393,000 **O:** $4,688,000 **T:** $5,081,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,184,000 – Funds will be used for commonly performed O&M work.

RC: $1,378,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $519,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Lake Red Rock Project consists of Iowa's largest lake and 50,300 acres of fee-title lands. Red Rock is a multi-purpose project providing primary benefits in flood control and secondary benefits in low-flow augmentation, recreation, and environmental stewardship. Storage volume at full flood pool is 1,750,400 acre feet. The dam is located just downstream of Des Moines, Iowa, on the Des Moines River and was completed in 1969.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $44,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Saylorville Lake, IA

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: The dam is located 11 miles northwest of Des Moines, Iowa, on the Des Moines River, County of Polk. Saylorville Lake is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. Conservation pool is 5,950 acres with a storage volume of 586,000 acre-feet at flood pool level.

FISCAL YEAR 2019 ALLOCATION: $8,355,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including the Big Creek Diversion Dam control tower, to construct a bulkhead for main dam, boundary line survey, maintenance and signage to prevent encroachments; design erosion control around flood risk management structures, remedy the effects of Emerald Ash Borer invasion, target tree removal and re-plantings, improve pollinator habitats, and modernize recreation infrastructure.

FISCAL YEAR 2020 ALLOCATION: $6,028,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including completion of plans and specifications for emergency bulkhead procurement, real estate boundary and flowage easement inspection and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $1,365,000 **O:** $5,489,000 **T:** $6,854,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $4,225,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work including control tower sluice gate rehabilitation.

RC: $1,920,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $699,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Cumulative damages prevented are estimated at $401 million. The project includes 26 thousand acres of fee title lands and 13 recreation areas. FY 2017 recreation fee receipts and lease revenues were $734 thousand.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $969,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

KANSAS

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Clinton Lake, KS

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: This multi-purpose project includes an earth-fill dam 9,250 feet long with a crest 114 feet above the original streambed. The reservoir is located on the Wakarusa River, one mile west of Lawrence, Kansas, County of Douglas. Project purposes include flood protection, water supply, recreation, water quality, and fish and wildlife management to the State of Kansas and the region.

FISCAL YEAR 2019 ALLOCATION: $2,397,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,746,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the inspection and repairs on the emergency and service sluice gates Hydraulic Steel Structure and repair of concrete gutters on downstream abutments.

BUDGETED AMOUNT FOR FY 2021: M: $324,000 **O:** $2,291,000 **T:** $2,615,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,528,000 – Funds will be used for commonly performed O&M work.

RC: $803,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $274,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a boundary line maintenance and reclamation.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1977 has totaled over $2.3 billion with an average annual economic benefit of $15.2 million. The project encompasses 22,245 land acres, and 7,309 water acres providing a reservoir total storage capacity of 411.2 thousand acre-feet of water with 85 miles of shoreline, and supplies 3.1 billion gallons of water per year to City of Lawrence and Rural Water Districts in the State of Kansas. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $56,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Council Grove Lake, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Council Grove Lake is located 1.5 miles northwest of Council Grove in Morris County, Kansas on the Grand (Neosho) River at river mile 449.5. This is a multi-purpose project authorized for flood control, water supply, water quality control, and recreation. The project has a 6,500 foot long earth fill embankment with an uncontrolled spillway. At conservation pool depth, the lake covers 3,259 acres.

FISCAL YEAR 2019 ALLOCATION: $1,344,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,161,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including prepare plans and specifications for repairs to the dam embankment, paint the spillway bridge superstructure, prepare a bridge load rating and crane placement plan, and update the project master plan.

BUDGETED AMOUNT FOR FY 2021: M: $707,000 **O:** $1,322,000 **T:** $2,029,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,078,000 – Funds will be used for commonly performed O&M work.

RC: $772,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $164,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1964, Council Grove Lake is estimated to have prevented $313 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $48,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: El Dorado Lake, KS

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: El Dorado Lake is two miles northeast of the town of El Dorado in Butler County, Kansas. It is located at river mile 114.7 on the Walnut River, a tributary of the Arkansas River. This is a multi-purpose project authorized for flood control, water supply, water quality control, and recreation. The project consists of a 20,850 foot long earth embankment with a spillway. At the conservation pool depth, the lake covers 7,997 acres.

FISCAL YEAR 2019 ALLOCATION: $601,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $939,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including revision of the project master plan.

BUDGETED AMOUNT FOR FY 2021: M: $129,000 **O:** $627,000 **T:** $756,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $606,000 – Funds will be used for commonly performed O&M work.

RC: $33,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $102,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1981, El Dorado Lake is estimated to have prevented $379 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $105,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Elk City Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Elk City Lake is 7 miles east of the town of Elk City in Montgomery County, Kansas located on the Elk River at river mile 8.7. This is a multi-purpose project authorized for flood control, water supply, water quality, recreation, and environmental stewardship. The project consists of a 4,840 foot earth embankment with an uncontrolled spillway, 16 foot conduit, and stilling basin. The outlet works are located near the right abutment and are controlled by two 7 by 16 foot hoist-operated tractor gates. At conservation pool depth the lake covers 4,118 acres.

FISCAL YEAR 2019 ALLOCATION: $944,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,493,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including preparation of a bridge load rating and crane placement plan and update of the project master plan.

BUDGETED AMOUNT FOR FY 2021: M: $146,000 **O:** $883,000 **T:** $1,029,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $688,000 – Funds will be used for commonly performed O&M work.

RC: $174,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $152,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1966, Elk City Lake is estimated to have prevented $470,000,000 in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $57,000. There was an additional $36,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

PPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fall River Lake, KS

AUTHORIZATION: Flood Control Act of 1941 (P.L. 77-228)

LOCATION AND DESCRIPTION: Fall River Lake is four miles northwest of the town of Fall River in Greenwood County, Kansas located on the Fall River at river mile 54.2. This is a multi-purpose project authorized for flood control, water quality, fish and wildlife, and supplemental water supply. The project consists of a 5,545 foot long earth embankment with a gate-controlled, concrete, gravity ogee weir and 8 tainter gates. At conservation pool depth the lake covers 2,350 acres.

FISCAL YEAR 2019 ALLOCATION: $1,022,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for routine operation and maintenance (O&M) work. Funds were also used for specific work activities including replacement of a water line and installation of LED lighting in the project office compound.

FISCAL YEAR 2020 ALLOCATION: $1,289,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $379,000 **O:** $1,165,000 **T:** $1,544,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,130,000 – Funds will be used for commonly performed O&M work.

RC: $255,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $159,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Since construction in 1949, Fall River Lake is estimated to have prevented $624 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $136,000. There was an additional $5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hillsdale Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project includes an earth-fill embankment about 11,600 feet long (including approximately 3,300 feet of dike section) with a crest 100 feet above the original streambed, and reservoir storage capacity of 163,900 acre-feet. It is located approximately twelve miles above the mouth of Big Bull Creek, a tributary of the Marais des Cygnes River and about five miles north of Paola, Kansas, County of Miami.

FISCAL YEAR 2019 ALLOCATION: $1,012,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,219,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including pest and invasive species management and native grass restoration for pollinator health.

BUDGETED AMOUNT FOR FY 2021: M: $312,000 **O:** $988,000 **T:** $1,300,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,095,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety reports.

RC: $80,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $115,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a boundary line inspection and correction effort.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1981 has totaled $66.3 million with an average annual economic benefit of $8.6 million. The project encompasses 13 thousand land acres, 4.6 thousand water acres with 51 miles of shoreline, and the reservoir supplies 1.8 billion gallons of water annually to eleven rural water districts in the region. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $38,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: John Redmond Dam and Reservoir, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: John Redmond Dam and Reservoir is three miles northwest of the City of Burlington in Coffey County, Kansas. It is located on the Grand (Neosho) River at river mile 343.7. This is a multi-purpose project authorized for flood control, water supply, water quality control, recreation, and fish and wildlife. The project consists of a 21,790 foot long earth fill embankment and a gated ogee weir, concrete spillway with 14 tainter gates. At conservation pool depth the lake covers 8,084 acres.

FISCAL YEAR 2019 ALLOCATION: $1,710,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,860,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $302,000 **O:** $1,458,000 **T:** $1,760,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,195,000 – Funds will be used for commonly performed O&M work.

RC: $256,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $294,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1964, John Redmond Dam and Reservoir is estimated to have prevented $1.1 billion in cumulative flood damages. The State of Kansas is preparing a Section 408 permit request to obtain approval to mechanically dredge the reservoir and increase the current water supply for use at the nearby Wolf Creek nuclear plant.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $76,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Kanopolis Lake, KS

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: This multi-purpose project includes an earth-fill dam with a crest 121 feet above the original streambed, having a total length of 15,360 feet, including dike sections on the left and right abutments; and reservoir storage capacity of 413,500 acre-feet. The project is located at mile 184 on the Smoky Hill River and eleven miles northwest of Marquette, Kansas, County of Ellsworth.

FISCAL YEAR 2019 ALLOCATION: $2,603,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including forestry maintenance, pest invasive management, and the replacement of a security perimeter fence.

FISCAL YEAR 2020 ALLOCATION: $3,079,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary inspection and marking, a reallocation study, silt and rock removal and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $276,000 **O:** $1,724,000 **T:** $2,000,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,351,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety reports and physical cyber security assessments.

RC: $419,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $220,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary inspection and marking.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1947 has totaled $2.8 billion with an average annual economic benefit of $37.9 million. The project encompasses 21 thousand land acres, 3.4 thousand water acres with 41 miles of shoreline, and the reservoir supplies 225.0 million gallons of water annually. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,511,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Marion Lake, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Marion Lake is three miles northwest of the City of Marion in Marion County, Kansas, and located on the Cottonwood River at river mile 126.7. This is a multi-purpose project authorized for flood control, water supply, water quality, and recreation. The project consists of an 8,375 foot long rolled earth fill embankment with a gate-controlled, concrete gravity ogee weir spillway containing three tainter gates. At conservation pool depth the lake covers 6,210 acres.

FISCAL YEAR 2019 ALLOCATION: $2,291,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacement of the spillway bridge.

FISCAL YEAR 2020 ALLOCATION: $2,267,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including update of the project master plan.

BUDGETED AMOUNT FOR FY 2021: M: $276,000 **O:** $1,593,000 **T:** $1,869,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $903,000 – Funds will be used for commonly performed O&M work.

RC: $834,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $117,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1968, Marion Lake is estimated to have prevented $527 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,323,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Melvern Lake, KS

AUTHORIZATION: Flood Control Acts of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project is located eight miles south of Lyndon, Kansas, County of Osage County. An earth-filled dam 9,700 feet long with a crest of 119 feet, the project includes a 6,930 acre lake with 17,248 acres of land surrounding, and reservoir with a storage capacity of 358,600 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $3,178,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary monumentation and rectification, dam safety reports and continuation of a water reallocation study.

FISCAL YEAR 2020 ALLOCATION: $3,300,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary monumentation and rectification, continuation of a reallocation study and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $301,000 **O:** $2,433,000 **T:** $2,734,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,551,000 – Funds will be used for commonly performed O&M work.

RC: $843,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $230,000 – Funds will be used for commonly performed O&M work.

WS: $110,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1972 has totaled $394.4 million with an average annual economic benefit of $13.4 million. The project encompasses 23 thousand land acres, 6.9 thousand water acres with 101 miles of shoreline, and the reservoir supplies 275.0 million gallons of water annually to two water districts in the region. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $352,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Milford Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 81-780)

LOCATION AND DESCRIPTION: This is a multi-purpose project located on the Republican River about ten miles above the confluence of the Republican and Smoky Hill Rivers, which form the Kansas River; near Fort Riley, Kansas, and about four miles northwest of Junction City, Kansas, Counties of Geary, Dickinson, Clay, and Riley. An earth-fill dam 6,300 feet long with a crest 143 feet above the original streambed, and reservoir storage capacity of 1,131,000 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $2,201,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacement and repair of the control tower electrical system.

FISCAL YEAR 2020 ALLOCATION: $2,747,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a relief well rejuvenation.

BUDGETED AMOUNT FOR FY 2021: M: $115,000 **O:** $2,417,000 **T:** $2,532,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,440,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety reports.

RC: $924,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $158,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Cumulative flood damages prevented since the project was put into service in 1965 has totaled $2.7 billion with an average annual economic benefit of $64.8 million. The project encompasses 44 thousand land acres, and 15.7 thousand water acres with 163 miles of shoreline. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $39,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pearson-Skubitz Big Hill Lake, KS

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Pearson-Skubitz Big Hill Lake is 4.5 miles east of the City of Cherryvale in Labette County, Kansas. It is located at river mile 33.3 on Big Hill Creek, a tributary of the Verdigris River. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of a rolled earth fill embankment that is 3,902 feet long with a broad crested weir and two drop inlet structures. At conservation pool depth the lake covers 1,240 acres.

FISCAL YEAR 2019 ALLOCATION: $1,383,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including installation of solar water heaters in recreation areas and LED lighting at the project office.

FISCAL YEAR 2020 ALLOCATION: $1,442,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairing service gates and boundary line fencing.

BUDGETED AMOUNT FOR FY 2021: M: $178,000 **O:** $1,223,000 **T:** $1,401,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $631,000 – Funds will be used for commonly performed O&M work.

RC: $683,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $72,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1981, Pearson-Skubitz Big Hill Lake is estimated to have prevented $83 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $326,000. There was an additional $6,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Perry Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 81-780)

LOCATION AND DESCRIPTION: This multipurpose project is located on the Delaware River, two miles north of Perry, Kansas, County of Jefferson. The project includes an earth-fill dam 7,750 feet long with a crest 121 feet above the original streambed, and reservoir storage capacity of 715,500 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $2,640,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to re-grade and placement of riprap on downstream outlet channels and a boundary maintenance tree and vegetation removal project.

FISCAL YEAR 2020 ALLOCATION: $2,845,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a relief well rejuvenation and boundary maintenance tree and vegetation removal.

BUDGETED AMOUNT FOR FY 2021: M: $626,000 **O:** $2,761,000 **T:** $3,387,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,765,000 – Funds will be used for commonly performed O&M work.

RC: $1,054,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $558,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary maintenance tree and vegetation removal project and updates to the master plan and master plan supplements.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1967 has totaled $10.3 billion with an average annual economic benefit of $74.7 million. The project encompasses 39 thousand land acres, 11 thousand water acres with 160 miles of shoreline, and provides critical support to the Missouri River during times of flooding and navigation flow support during periods of drought. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $99,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pomona Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project is located eight miles northwest of Pomona, Kansas, and thirty-four miles upstream from Ottawa, Kansas, County of Osage. An earth-filled dam 7,750 feet long with a crest 119 feet above the original streambed, and a reservoir storage capacity of 239,500 acre-feet. The project includes a 3,865 acre lake with 8,445 acres of land surrounding.

FISCAL YEAR 2019 ALLOCATION: $2,110,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacement of permanent operating equipment of a case loader.

FISCAL YEAR 2020 ALLOCATION: $2,534,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for the commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $359,000 **O:** $2,171,000 **T:** $2,530,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,501,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety reporting.

RC: $803,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $214,000 – Funds will be used for commonly performed O&M work.

WS: $12,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Cumulative flood damages prevented since the project was put into service in 1964 has totaled $411.4 million with an average annual economic benefit of $17.1 million. The project encompasses 10.5 thousand land acres, 4 thousand water acres with 52 miles of shoreline, and supplies 55.0 million gallons of water annually for supplemental downstream water quality for the State Water Assurance District. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $5,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Toronto Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Toronto Lake is four miles southeast of the town of Toronto in Woodson County, Kansas, and located on the Verdigris River at river mile 271.5. This is a multi-purpose project authorized for flood control, water supply, water quality, fish and wildlife, and recreation. The project consists of a rolled impervious and random earth fill embankment that is 4,712 feet long with a gate-controlled, concrete, gravity, ogee weir with eight 40 by 25 foot tainter gates. At conservation pool depth the lake covers 2,660 acres.

FISCAL YEAR 2019 ALLOCATION: $697,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairing concrete spalls and installing a water line to the dam structure.

FISCAL YEAR 2020 ALLOCATION: $722,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $127,000 **O:** $625,000 **T:** $752,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $626,000 – Funds will be used for commonly performed O&M work.

RC: $24,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $87,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1960, Toronto Lake is estimated to have prevented $671 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $35,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tuttle Creek Lake, KS

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-645), WRDA 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: This is a multi-purpose project is located at River Mile 10 on the Big Blue River, six miles North of Manhattan, Kansas, Counties of Riley and Pottawatomie. An earth and rock-fill dam 7,500 feet long with a crest 166 feet above the original streambed, gated outlet works, and gated concrete spillway; and a reservoir storage capacity of 2,141,300 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $3,189,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary and easement repairs and the replacement of permanent operating equipment of a tandem axle dump truck.

FISCAL YEAR 2020 ALLOCATION: $2,684,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including management of threatened and endangered species and a spillway gate shaft alignment.

BUDGETED AMOUNT FOR FY 2021: M: $279,000 **O:** $2,790,000 **T:** $3,069,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,373,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety reporting.

RC: $518,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $168,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Cumulative flood damages prevented since the project was put into service in 1960 has totaled $12.4 billion with an average annual economic benefit of $129.9 million. The project encompasses 33.6 thousand land acres, 12.4 thousand water acres with 104 miles of shoreline, and provides low-flow supplementation to the Kansas and Big Blue Rivers; navigation supplementation on the Missouri River; and water quality and recreation to the State of Kansas and the region. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $907,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Wilson Lake, KS

AUTHORIZATION: Flood Control Act of 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: This is a multi-purpose project and includes an earth-fill dam 5,600 feet long with a crest 172 feet above the original streambed, with reservoir storage capacity of 766,300 acre-feet. The Project is located on the Saline River, twenty miles East of Russell, Kansas, Counties of Russell and Lincoln.

FISCAL YEAR 2019 ALLOCATION: $2,161,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a compound entrance gate, the replacement of the compound entrance fence, an endangered species habitat work and a master plan compliance update.

FISCAL YEAR 2020 ALLOCATION: $2,082,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $1,969,000 **O:** $1,641,000 **T:** $3,610,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,616,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including installation of new relief wells.

RC: $780,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including efforts for electric cost reduction.

H: N/A

EN: $214,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary inspection and maintenance.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented since the project was put into service in 1965 has totaled $2.5 billion with an average annual economic benefit of $19.1 million. The project encompasses 21.8 thousand land acres, and 9.2 thousand water acres with 100 miles of shoreline. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $267,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Barkley Dam and Lake Barkley, KY and TN

AUTHORIZATION: River and Harbor Act 1946 (P.L. 79-525), River and Harbor Act 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: Barkley Dam and Lake Barkley is a high-use waterway located in southwestern Kentucky, approximately 26 miles east of Paducah, KY. The project consists of a 110-foot by 800-foot lock, earth and concrete gravity-type dam, a hydropower plant, and a flood storage reservoir with recreation and environmental stewardship areas. The project is the lower-most dam on the Cumberland River and is connected to Kentucky Lake on the Tennessee River via a canal.

FISCAL YEAR 2019 ALLOCATION: $18,155,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also being used for specific work activities including boundary surveying and rectification, Cumberland River mile 104 dredging and condition surveys, design and purchase hydropower trash screens, replacement of the electrical operating system for the lock and emergency dam, hydropower forebay debris removal and a water availability study.

FISCAL YEAR 2020 ALLOCATION: $19,274,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a shoreline management plan update, operational management plan update, a water availability study, replace intake and spillway crane, replace the sewer line at the Old Kuttawa Recreation Area, and, repair a campground wastewater/septic system.

BUDGETED AMOUNT FOR FY 2021: M: $4,057,000 **O:** $9,502,000 **T:** $13,559,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $4,842,800 of which $2,232,800 is allocated joint use costs – Funds will be used for commonly performed O&M work.

FRM: $868,700 of which $868,700 is allocated joint use costs – Funds will be used for commonly performed O&M work.

RC: $1,630,000 – Funds will be used for commonly performed O&M work.

H: $5,277,500 of which $181,500 is allocated joint use costs – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including install hydropower trash screens and mission essential annual forebay debris removal.

EN: $914,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a boundary survey and rectification.

WS: $26,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Steady and reliable movement of coal and aggregate is vital to the Tennessee Valley Authority due to limited storage at their fossil fuel power plants. Shippers relying on Barkley Lock realize average annual transportation savings of more than $49,000,000. The hydropower plant generates 690,000 megawatt-hours of energy annually, enough for 58,000 homes. As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD - 6%, NAV - 68%, and FRM - 26%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $323,000. There was an additional $38,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Barren River Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Barren River Lake is located in south-central Kentucky approximately 95 miles south of Louisville and about 16 miles southwest of Glasgow. The dam site is at mile 79.2 on Barren River. The dam is rolled earth and rock-fill, 146 feet high and 3,970 feet long. The lake area lies in Allen and Barren Counties with a small portion located in Monroe County. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply, and water quality. The project covers 10,000 acres at summer pool and 20,150 acres at the maximum flood control pool.

FISCAL YEAR 2019 ALLOCATION: $3,586,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including painting and repair of the control tower bridge and boundary surveys.

FISCAL YEAR 2020 ALLOCATION: $4,046,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including installing a new liner inside the bypass elbow, boundary surveying and rectification, endangered mussel monitoring, and mussel surveys.

BUDGETED AMOUNT FOR FY 2021: M: $379,000 **O:** $2,770,000 **T:** $3,149,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,159,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including movement monument surveys along with periodic assessment and inspections.

RC: $666,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $313,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $210,000,000 in flood damages since 1964.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $644,000. There was an additional $78,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

,APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Buckhorn Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Buckhorn Lake is located in southeastern Kentucky, 43.3 river miles upstream from Beattyville, where the Middle Fork and the North Fork of the Kentucky River converge. The dam site is 0.5 miles upstream from the community of Buckhorn. The dam is earthen and rock-fill with gate controlled outlet works and a gate controlled spillway. The structure is 160-feet high and 1,020-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2019 ALLOCATION: $2,077,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,401,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a migratory waterfowl survey and piezometer installation and replacement.

BUDGETED AMOUNT FOR FY 2021: M: $566,000 **O:** $1,478,000 **T:** $2,044,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,374,000 – Funds will be used for commonly performed O&M work.

RC: $374,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $296,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented a total of $79,400,000 in flood damages since 1959.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $12,000. There was an additional $5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Carr Creek Lake, KY

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Carr Creek Lake is located in the mountainous region of southeastern Kentucky, about 12 miles south of Hazard. The dam is located on Carr Fork, 8.8 miles above the confluence with the North Fork of the Kentucky River, approximately 16 miles upstream from Hazard. The entire project lies in Knott County. The dam is rock and earthen-fill, 130 feet high and 720 feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,869,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,442,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including bridge inspections and evaluations, replacement of a corroded metal culvert, timberland habitat improvement for threatened and endangered bats, and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $431,000 **O:** $1,889,000 **T:** $2,320,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,239,000 – Funds will be used for commonly performed O&M work.

RC: $577,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $496,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including master plan.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $109,900,000 in flood damages since 1976.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $19,000. There was an additional $76,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cave Run Lake, KY

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738) and 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cave Run Lake is located in northeastern Kentucky, about 12 miles south of Morehead. The dam site is at mile 173.6 of the Licking River. The dam is rolled earth and rock-fill with gate controlled outlet works and is 148 feet high and 2,700 feet long. The lake is confined within Bath, Menifee, Morgan, and Rowan Counties and within the proclamation boundary of the Daniel Boone National Forest. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,162,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including continuation of rip rap replacement in the retreat channel.

FISCAL YEAR 2020 ALLOCATION: $1,535,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including installation of new ladder sections in control tower, continuation of rip rap replacement in the retreat channel and including developing reservoir eco-curves.

BUDGETED AMOUNT FOR FY 2021: M: $188,000 **O:** $1,071,000 **T:** $1,259,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,004,000 – Funds will be used for commonly performed O&M work.

RC: $160,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $84,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $323,900,000 in flood damages since 1973.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $66,000. There was an additional $28,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Dewey Lake, KY

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Dewey Lake is located in Floyd County, KY on Johns Creek of the Levisa Fork, a tributary of the Big Sandy River. It is 5.4 miles above the mouth of Johns Creek and 79.4 miles above the mouth of the Big Sandy River. The project includes operation and maintenance (O&M) of Dewey Lake. The lake is impounded by a rolled earth-fill dam with an uncontrolled spillway. The crest length of the dam is 913 feet. The dam was completed in July of 1949.

FISCAL YEAR 2019 ALLOCATION: $3,419,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including cleaning and painting the emergency gate and lifting beam and refurbishing three sluice gates.

FISCAL YEAR 2020 ALLOCATION: $1,966,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the completion of a historic properties management plan.

BUDGETED AMOUNT FOR FY 2021: M: $805,000 **O:** $1,310,000 **T:** $2,115,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,840,000 – Funds will be used for commonly performed O&M work.

RC: $200,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $75,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: N/A

OTHER INFORMATION: The project has prevented over $141,500,000 in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $565,000. There was an additional $10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Falls of the Ohio National Wildlife, KY & IN

AUTHORIZATION: An Act of December 29, 1981 (H.R. 2241, PL 97-137, Title II, 95 Stat 1710) established the 1,000-acre Falls of the Ohio National Wildlife Conservation Area, at a cost not to exceed $300,000. An Act of November 28, 1990 (P.L. 101-640, 101st Cong., 2nd Session) modified PL 97-137 by authorizing an interpretive center at Falls of the Ohio National Wildlife Conservation Area, at an estimated total cost of $3,200,000.

LOCATION AND DESCRIPTION: Falls of the Ohio National Wildlife Conservation Area is located in Clark and Floyd Counties in Indiana and Jefferson County in Kentucky. It consists of the land area in and along the Ohio River in the states of Indiana and Kentucky. The Conservation Area lies along the shoreline of the Ohio River, as well as within the river in areas known as Sand and Shipping port Islands. Existing within the area is part of the Ohio River and the Falls of the Ohio.

FISCAL YEAR 2019 ALLOCATION: $34,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $29,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $29,000 **O:** $29,000 **T:** $58,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: $58,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The “Falls” is a misnomer for this series of rapids. The area contains exposed limestone fossil beds during normal river flows. These fossil beds are the only location in the entire 981 mile length of the Ohio River where bedrock is exposed.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $10,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fishtrap Lake, KY

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Fishtrap Lake is located in Pike County, KY on the Levisa Fork of the Big Sandy River. It is 103.3 miles above the mouth of the Levisa Fork. The project includes operation and maintenance (O&M) of Fishtrap Lake. The lake is impounded by a rolled rock dam with impervious core and a controlled spillway. The top length of the dam is 1,100 feet. The dam was completed in February 1969.

FISCAL YEAR 2019 ALLOCATION: $2,592,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repacking hydraulic cylinders on low flow gates and replace security fencing.

FISCAL YEAR 2020 ALLOCATION: $3,280,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities to repair spalling concrete on tainter gate abutments and real estate boundary monumentation and rectification.

BUDGETED AMOUNT FOR FY 2021: M: $721,000 **O:** $1,627,000 **T:** $2,348,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,885,000 – Funds will be used for commonly performed O&M work.

RC: $400,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $63,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project has prevented over $906,300,000 in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,000. There was an additional $10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $2,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Grayson Lake, KY

AUTHORIZATION: Section 203 of Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Grayson Lake is located in Carter County, Kentucky, on the Little Sandy River, 51.2 miles above its mouth. The lake is impounded by an earthen dam with a central impervious core. It has a maximum height of 120 feet and a top length of 1,460 feet. The spillway is an uncontrolled, broad crested, saddle spillway at the left abutment. The dam was completed in 1968.

FISCAL YEAR 2019 ALLOCATION: $1,734,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing the sewer line at the project office as a cost savings measure.

FISCAL YEAR 2020 ALLOCATION: $1,980,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M activities. Funds are also being used for specific work activities including a reallocation study ($250,000) and the repair and replacement of security fencing ($55,000).

BUDGETED AMOUNT FOR FY 2021: M: $821,000 **O:** $1,216,000 **T:** $2,037,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,522,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities to repair and replace security fencing.

RC: $150,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $324,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: $41,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project has prevented over $165,900,000 in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $267,000. There was an additional $10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $300,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Green & Barren Rivers, KY

AUTHORIZATION: Rivers & Harbors Appropriation Act of 1888; 1909 Act (P.L. 60-317)

LOCATION AND DESCRIPTION: Six locks and dams on the Green River and one on the Barren River were constructed under the project authority, but only two remain operational for navigation. Green River Lock and Dam Number 1 is a low-use waterway located on the Green River at river mile 9.1 at Spotsville, KY. The project consists of a fixed crest dam and a single 84-foot by 600-foot lock chamber. Green River Lock and Dam Number 2 is located on the Green River at river mile 63.1, at Calhoun, KY. The project consists of a fixed crest dam and a single 84-foot by 600-foot lock chamber.

FISCAL YEAR 2019 ALLOCATION: $2,709,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M work. Funds were also used for specific work activities including replacing dam warning signs at both locks.

FISCAL YEAR 2020 ALLOCATION: $2,769,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an OCA inspection at Green River Lock and Dam 1 & 2 and a lighting upgrade at Green River Lock 2.

BUDGETED AMOUNT FOR FY 2021: M: $1,541,000 **O:** $1,298,000 **T:** $2,839,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $2,834,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: $5,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $137,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Green River Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Green River Lake lies in Taylor and Adair Counties in south central Kentucky. It is approximately 90 miles south-southeast of Louisville and about 8 miles south of Campbellsville. The dam site is at mile 305.7 on Green River. The dam is earthen- and rock-fill with gate controlled outlet works and uncontrolled open spillway. The dam and is 143 feet high and 2,350 feet long. The project also includes an earth-filled dike that is 105 feet high and 1,952 feet long. The project also has a visitor's center. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply, and water quality.

FISCAL YEAR 2019 ALLOCATION: $4,345,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing electrical components on the elevator, replacing the multi-level assemblies, repairing baffles and the stilling basin floor, regrading and rocking the upstream dike service road, and grading and installing rip rap in areas of erosion.

FISCAL YEAR 2020 ALLOCATION: $3,420,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacing multi-level assemblies and replacing elevator electrical components.

BUDGETED AMOUNT FOR FY 2021: M: $391,000 **O:** $2,868,000 **T:** $3,259,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,327,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including movement monument surveys and replacing handrails surrounding the stilling basin.

RC: $695,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $226,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $188,800,000 in flood damages since 1967.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $45,000. There was an additional $30,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Kentucky River, KY

AUTHORIZATION: Rivers and Harbors Act of 1879.

LOCATION AND DESCRIPTION: The project is a low-use waterway located in east central Kentucky and stretches from Beattyville to the confluence with the Ohio River at Carrollton. There are a total of 14 locks and dams related to this project on the Kentucky River. Kentucky Locks numbers 5 through 14 have been transferred from the Corps to the Commonwealth of Kentucky. Kentucky Locks numbers 1 through 4 are leased to the Kentucky River Authority.

FISCAL YEAR 2019 ALLOCATION: $122,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $215,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to dispose of Kentucky Locks 1 through 4 to the Kentucky River Authority, which currently manages locks and dams 5 through 14, per the recommended plan included in the Corps' March 2018 Kentucky Locks and Dams 1, 2, 3, and 4 Disposition Study.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $5,000 **T:** $5,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $5,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Since the locks are no longer operated by the Corps, they are considered excess property.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $30,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Laurel River Lake, KY

AUTHORIZATION: Section 203 of the Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Laurel River Lake is located in the Counties of Laurel and Whitley, approximately nine miles west of Corbin, Kentucky. The project consists of a rock-fill dam, a hydropower plant, and a reservoir with recreation and stewardship areas.

FISCAL YEAR 2019 ALLOCATION: $2,320,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were being used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,417,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a reallocation study.

BUDGETED AMOUNT FOR FY 2021: M: $396,000 **O:** $2,175,000 **T:** $2,571,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $741,600 of which $548,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $1,628,400 of which $174,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $57,000 – Funds will be used for commonly performed O&M work.

WS: $144,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a reallocation study.

OTHER INFORMATION: The hydropower plant generates 66,000 megawatt-hours of energy annually, enough for 5,500 homes. As a multiple purpose project with power, the project's budget includes Joint activities, shared between business lines as follows: HYD 24% and REC 76%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,000. There was an additional $29,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Martins Fork Lake, KY

AUTHORIZATION: Section 201 (a) of the Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Martins Fork Lake is located at river mile 15.6 of the Martins Fork of the Cumberland River, approximately 13 miles southeast of the town of Harlan, Kentucky. The project consists of a concrete gravity dam and a flood storage reservoir with recreation and stewardship areas.

FISCAL YEAR 2019 ALLOCATION: $1,680,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary surveying and rectification.

FISCAL YEAR 2020 ALLOCATION: $1,717,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a master plan update and boundary surveying and rectification.

BUDGETED AMOUNT FOR FY 2021: M: $327,000 **O:** $1,315,000 **T:** $1,642,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,280,000 – Funds will be used for commonly performed O&M work.

RC: $30,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $329,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including master plan update phase 2.

WS: $3,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project has prevented $2,050,000 in damages through FY 2018.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $12,000. There was an additional $12,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Middlesboro Cumberland River, KY

AUTHORIZATION: Section 5 of the Flood Control Act of 1936 (P.L. 74-738)

LOCATION AND DESCRIPTION: The project is located at Middlesboro, Kentucky on Yellow Creek, a tributary of the Cumberland River, about 660 miles above its confluence with the Ohio River. The project consists of a canal and levee system about 4 miles in length which diverts Bennett's Fork Creek around the city into Yellow Creek.

FISCAL YEAR 2019 ALLOCATION: $263,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $270,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $88,000 **O:** $194,000 **T:** $282,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $282,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project has prevented $651,946,000 in flood damages through FY 2018.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Nolin Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Nolin Lake is located 12 miles south of Leitchfield, KY and 70 miles south of Louisville in Edmonson, Grayson, and Hart Counties of central Kentucky. The dam site is 7.8 miles above the mouth of the Nolin River, and 9.6 miles upstream from Lock Number 6 on the Green River. The dam is rock-fill and earthen core with gate-controlled outlet works, and an uncontrolled open spillway. The dam is 166 feet high and 980 feet long. The project was authorized as a multi-purpose flood control project with recreation management, environmental stewardship, and water supply activities.

FISCAL YEAR 2019 ALLOCATION: $3,314,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including flowage easement activities.

FISCAL YEAR 2020 ALLOCATION: $3,205,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairing dam screens and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $587,000 **O:** $2,586,000 **T:** $3,173,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,002,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including trash rack guides replacement and to stabilize bridge pier.

RC: $639,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $524,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including comprehensive master plan and boundary monumentation and rectification.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $134,000,000 in flood damages since 1963.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $793,000. There was an additional $69,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ohio River Locks and Dams, KY, IL, IN and OH

AUTHORIZATION: The 1909 Act (P.L. 60-317), Rivers & Harbor Appropriation Action of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: This Federal project includes eight locks and dams in the Ohio River starting with Markland at river mile 531.5 and ending with Locks and Dam Number 53 at river mile 962.6. Locks and Dams Numbers 52 and 53 are low-lift wicket dams. Markland, McAlpine, Cannelton, Newburgh, John T. Myers, and Smithland Locks and Dams are modern high-lift projects.

FISCAL YEAR 2019 ALLOCATION: $70,097,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including , preparation for the installation of replacement miter gates on the North Chamber of McAlpine L&D; repairing tainter gate cable connections on Gates 4 and 6 at Smithland L&D, repairing the auxiliary chamber culvert valve at Markland L&D, rehabilitating the electrical systems at John T. Myers L&D, fabricating replacement downstream miter gates at Cannelton L&D, installing replacement cylinders at Smithland L&D, and replacing the HVAC units at Smithland L&D.

FISCAL YEAR 2020 ALLOCATION: $51,571,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a periodic inspection of Cannelton L&D, surveys at Cannelton L&D, installation of miter gates on the North Chamber of McAlpine L&D, installation of replacement miter gate and culvert valve cylinders at Smithland L&D, periodic inspection of John T. Myers L&D, surveys of John T. Myers L&D, periodic inspection of Olmsted L&D, surveys of Olmsted L&D, repair of mooring bitt tracks at John T. Myers L&D, replacement of tainter gate cable connections at John T. Myers L&D, replacement of tainter gate cable connections at Smithland L&D and electrical system rehabilitation of the John T. Myers L&D.

BUDGETED AMOUNT FOR FY 2021: M: $50,014,000 **O:** $14,865,000 **T:** $64,879,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $64,832,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including install replacement miter gates at Cannelton L&D, rebuild miter gate machinery at Smithland L&D for one lock chamber, repair mooring bitt tracks at Cannelton L&D primary chamber, and replace tainter gate cable connections at Newburgh L&D.

FRM: N/A

RC: N/A

H: N/A

EN: $47,000 – Funds will be used for specific work activities including Real Estate-Boundary and Flowage Easement Inspection, Monitoring and Routine Maintenance and Wildlife Habitat Management.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $14,185,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ohio River Open Channel Work, KY, IL, IN and OH

AUTHORIZATION: The River and Harbors Act of 1827

LOCATION AND DESCRIPTION: This project consists of the Ohio River channel from Mile 438, at Foster, KY to Mile 981, at Cairo, IL, and is maintained by the Louisville District.

FISCAL YEAR 2019 ALLOCATION: $9,335,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging and engineering and design and environmental studies for construction of river dikes at the mouth of the Wabash to reduce future dredging requirements.

FISCAL YEAR 2020 ALLOCATION: $6,822,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging and environmental support to dredging activities.

BUDGETED AMOUNT FOR FY 2021: M: $6,367,000 **O:** $805,000 **T:** $7,172,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $7,172,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging and environmental support for dredging activities.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $488,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Paintsville Lake, KY

AUTHORIZATION: Section 204 of Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Paintsville Lake is located 7.8 miles above the mouth of Paint Creek about 4 miles west of Paintsville in Johnson County, KY. The lake is impounded by a rock-fill dam with a central impervious core. Its maximum height is 160 feet above the streambed, and the crest length is approximately 1,600 feet with a crest elevation of 757 feet, mean sea level. The dam was completed in 1984.

FISCAL YEAR 2019 ALLOCATION: $1,352,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,089,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including master plan update and real estate boundary monumentation and rectification.

BUDGETED AMOUNT FOR FY 2021: M: $485,000 **O:** $1,075,000 **T:** $1,560,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,445,000 – Funds will be used for commonly performed O&M work.

RC: $30,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $42,000 – Funds will be used for commonly performed O&M work.

WS: $43,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project has prevented over $38,000,000 in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Rough River Lake, KY

AUTHORIZATION: The Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Rough River Lake is located near the community of Falls of Rough, 20 miles from Leitchfield and 95 miles southwest of Louisville, in Breckinridge, Hardin, and Grayson Counties in south-central Kentucky. The dam is located on the Rough River, 89.3 miles above its confluence with the Green River. The dam is rolled, earthen- and rock-fill type, with gate-controlled outlet works. It is 130-feet high and 1,590-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water supply.

FISCAL YEAR 2019 ALLOCATION: $3,184,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including resolution of real estate encroachments, flowage easement monitoring to include aerial and land monitoring/surveillance of surveyed easements to identify and prevent additional flowage easement encroachments, removing and sealing the valves and all associated pipe penetrations and raw water intakes at the water control tower, and real estate activities at the project.

FISCAL YEAR 2020 ALLOCATION: $3,370,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds will also being used for specific work activities including resolution of real estate encroachments.

BUDGETED AMOUNT FOR FY 2021: M: $519,000 **O:** $2,932,000 **T:** $3,451,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,139,000 – Funds will be used for commonly performed O&M work.

RC: $642,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $659,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $274.5 million in flood damages since 1959.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $700,000. There was an additional $65,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Taylorsville Lake, KY

AUTHORIZATION: The Flood Control Act of 1966 (P.L. 89-789) and managed as a P.L. 89-72 project.

LOCATION AND DESCRIPTION: The dam is located 40 miles southeast of Louisville, and 4 miles upstream from Taylorsville, KY. It is at mile 60.0 of the Salt River, a tributary of the Ohio River. All fee and easement property is located in Spencer, Nelson, and Anderson Counties. The dam is earthen- and rock-fill with gate controlled outlet works and uncontrolled open spillway. It is 163-feet high and 1,280-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,156,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including movement monument surveys and pest and invasive species management.

FISCAL YEAR 2020 ALLOCATION: $1,154,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $653,000 **O:** $1,207,000 **T:** $1,860,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,300,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacing metal roof for project office.

RC: $78,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $482,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including cultural resources plan and master plan.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented a total of $122.8 million in flood damages since 1983.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $14,000. There was an additional $27,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Wolf Creek Dam, Lake Cumberland, KY

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Wolf Creek Dam is located ten miles southwest of Jamestown at mile 460 on the Cumberland River in Russell County, Kentucky. The project consists of an earthen-fill and concrete gravity dam, a hydropower plant, and a flood storage reservoir with recreation and environmental stewardship areas.

FISCAL YEAR 2019 ALLOCATION: $10,160,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary surveying and rectification and a monumentation survey.

FISCAL YEAR 2020 ALLOCATION: $10,541,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an analysis of hydropower operational data, replacing the station service governor, boundary surveying and rectification, a water supply reallocation study, and a monumentation survey.

BUDGETED AMOUNT FOR FY 2021: M: $1,967,000 **O:** $8,801,000 **T:** $10,768,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,522,100 of which $1,522,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,710,000 – Funds will be used for commonly performed O&M work.

H: $6,714,900 of which $1,195,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $664,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary surveying and rectification.

WS: $157,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including water supply reallocation study.

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities shared between business lines as follows: HYD – 44% and FRM – 56%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $29,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Yatesville Lake, KY

AUTHORIZATION: Section 204 of Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Yatesville Lake, KY is four miles south of Yatesville and 5 miles west of Louisa in Lawrence County, 18 miles above the mouth of Blaine Creek. The dam was completed in 1991, constructed with rock-fill and a central impervious core, and founded on in-situ overburden. The maximum height is 105 feet and the crest length is 760 feet. The uncontrolled, broad-crested spillway is located one-half mile southeast of the dam.

FISCAL YEAR 2019 ALLOCATION: $1,674,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairing, repacking, and resealing hydraulic cylinders; replacing the mobile truck crane, and a water supply reallocation study.

FISCAL YEAR 2020 ALLOCATION: $1,672,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including cleaning and painting selective withdrawal gates, replacing sewer lines at campground, and replacing/installing LED lighting in visitor information center/office, shop and intake.

BUDGETED AMOUNT FOR FY 2021: M: $492,000 **O:** $917,000 **T:** $1,409,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,323,000 – Funds will be used for commonly performed O&M work.

RC: $25,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $61,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project has prevented over $33 million in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Bayou Bodcau Dam and Reservoir, LA

AUTHORIZATION: Flood Control Act of 1938, Flood Control Act of 1936, modified by Act of 1939.

LOCATION AND DESCRIPTION: Bodcau Bayou Dam and Reservoir is located on Bayou Bodcau, a tributary of the Red River. It is a single purpose flood control reservoir. Recreation and natural resource stewardship are important secondary uses of project lands at Bodcau.

FISCAL YEAR 2019 ALLOCATION: $1,701,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including slide repairs on the dam embankment, conduct seepage study of the dam and environmental activities.

FISCAL YEAR 2020 ALLOCATION: $1,197,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including design of outlet works dewatering wells, collector ditch, and drilling plan development, implementation of the master plan including NEPA, inspect boundaries and flowage easement lands in Arkansas.

BUDGETED AMOUNT FOR FY 2021: M: $131,000 **O:** $611,000 **T:** $742,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $502,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including for the analysis of water control data for flood control on Red River, Red Chute Bayou, and dam safety features of the project.

RC: $66,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $174,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Bayou Bodcau Dam was classified as DSAC III in 2008 as part of the Corps-wide dam safety initiative. The Dam has prevented $68,000,000 in flood damages since it was placed in operation. Project visitation is over 222,000 per year.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $408,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Bayou Pierre, LA

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The project is located in the vicinity of Shreveport, Louisiana. It provides for flood control by channel improvement and enlargement of Ockley Drive Ditch and segments of Bayou Pierre.

FISCAL YEAR 2019 ALLOCATION: $33,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $33,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including herbicide application to control vegetation.

BUDGETED AMOUNT FOR FY 2021: M: $33,000 **O:** $0 **T:** $33,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $33,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including herbicide application to control vegetation.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Caddo Lake, LA

AUTHORIZATION: Flood Control Act of 1965, PL 89-298, Water Resources Development Act of 1976, Public Law 94-587.

LOCATION AND DESCRIPTION: Caddo Lake is located in Caddo Parish, LA, about 19 miles northwest of Shreveport, LA, just upstream of the confluence of Black and Twelve Mile Bayous. The lake helps to provide upstream storage for Shreveport/Bossier City, LA, the third largest city in Louisiana with a population exceeding 200,000.

FISCAL YEAR 2019 ALLOCATION: $206,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $216,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also be used for specific work activities including a water control manual update.

BUDGETED AMOUNT FOR FY 2021: M: $48,000 **O:** $238,000 **T:** $286,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $229,000 – Funds will be used for commonly performed O&M work.

RC: $57,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The lake has over 33 thousand visitors annually.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $8,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Gulf Intracoastal Waterway, LA

AUTHORIZATION: River and Harbor Act of 14 July 1946 and prior Acts

LOCATION AND DESCRIPTION: The Gulf Intracoastal Waterway (GIWW) crosses through all five states that comprise the Gulf of Mexico coastline, connecting Brownsville, Texas in the west to St. Mark, Florida in the east. The GIWW provides a protected passage for barge traffic to move vital commodities along the Gulf Coast.

FISCAL YEAR 2019 ALLOCATION: $29,983,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging, Calcasieu guidewall repairs, Algiers Lock concrete joint repairs, and to collect and manage data from water level gauges.

FISCAL YEAR 2020 ALLOCATION: $15,958,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dewatering of Calcasieu Lock, gate repairs and dredging.

BUDGETED AMOUNT FOR FY 2021: M: $1,013,000 **O:** $11,380,000 **T:** $12,393,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $12,350,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging.

FRM: N/A

RC: $43,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,469,000. There was an additional $224,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: J. Bennett Johnston Waterway, LA

AUTHORIZATION: Rivers and Harbors Act of 1968; Water Resources Development Act of 1976; Supplemental Appropriations Act of 1984; Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996; and Energy and Water Development Act of 1994.

LOCATION AND DESCRIPTION: The project is located in central and northwest Louisiana and provides for a 9-foot by 200-foot navigation channel extending about 236 miles from the Mississippi River through Old River and Red River to the vicinity of Shreveport, LA. Five locks and adjacent dams provide a lift of approximately 141 feet. The project also provides for realigning the banks of the Red River from the Mississippi River to Shreveport by means of dredging, cutoffs, and training works and stabilizing its banks by means of revetments, dikes, and other methods. This is a low use waterway.

FISCAL YEAR 2019 ALLOCATION: $14,766,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including the dewatering for inspection at Overton Lock and Dam.

FISCAL YEAR 2020 ALLOCATION: $11,687,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging.

BUDGETED AMOUNT FOR FY 2021: M: $3,750,000 **O:** $7,360,000 **T:** $11,110,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $10,130,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging.

FRM: N/A

RC: $957,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $23,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,094,000. There was an additional $83,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Wallace Lake, LA

AUTHORIZATION: Flood Control Act of 1936, H.D. 378, 74th Congress

LOCATION AND DESCRIPTION: Wallace Lake is located on Cypress Bayou, a tributary of Bayou Pierre. The primary purpose of the project is flood control with conservation and recreation as other benefits.

FISCAL YEAR 2019 ALLOCATION: $323,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $264,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $13,000 **O:** $194,000 **T:** $207,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $155,000 – Funds will be used for commonly performed O&M work.

RC: $52,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project has prevented over $40 million in flood damages since it was placed in operation. Annual visitation is in excess of 21 thousand visitors.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $215,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

MARYLAND

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cumberland, MD and Ridgeley, WV

AUTHORIZATION: Flood Control Act of 1936 and the Flood Control Act of 1946 described in House Document Number 101, 73rd Congress, 1st Session

LOCATION AND DESCRIPTION: The project is located in Cumberland, Maryland and Ridgeley, West Virginia. The protective works consist of about 1.6 miles of channel improvements along Wills Creek; 1.7 miles of channel improvement along the North Branch Potomac River; 3 pumping stations; eight pressure conduits; an industrial water-supply dam; reconstruction of a railroad bridge; track relocations; and reconstruction of piers and abutments for three highway bridges. Federal maintenance is provided for the channels of Wills Creek and the North Branch Potomac River. Operation and maintenance of the Federal project is performed by the City Engineering Department of Cumberland under contract with the U.S. Army Corps of Engineers, Baltimore District.

FISCAL YEAR 2019 ALLOCATION: $199,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $212,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $165,000 **O:** $50,000 **T:** $215,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $215,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 10,000. Flood damages prevented through FY 2018 are $39 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $29,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Jennings Randolph Lake, MD and WV

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Jennings Randolph Lake project is located in Garrett County of Maryland, and Mineral County, West Virginia, on the North Branch Potomac River, 7.9 miles upstream of the junction of Savage River with North Branch Potomac River at Bloomington, Maryland. The dam is a rolled earthen- and rock-fill structure with a spillway and with tainter gates along the ridge between the dike and the dam. Outlet works are provided in the right (south) abutment.

FISCAL YEAR 2019 ALLOCATION: $6,261,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $4,338,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a hydraulic steel structure inspection, tainter gate design documentation reports, and tainter gate plans and specifications.

BUDGETED AMOUNT FOR FY 2021: M: $542,000 **O:** $1,853,000 **T:** $2,395,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,518,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacing cable guard rails.

RC: $419,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $373,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan and conducting a bat survey.

WS: $85,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project controls a drainage area of 263 square miles with a surface area of 952 acres. The project provides benefit to a population at risk of 90,000. Flood damages prevented through FY 2018 are an estimated $403 million. The Corps operates and maintains six recreation areas, and two recreation areas are operated and maintained by Mineral County and by the Maryland Department of Natural Resources under real estate leases. Forty-five percent of the storage space in the project is allocated for water supply storage, owned by the Washington Suburban Sanitary Commission, District of Columbia, and Fairfax County.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,268,000. There was an additional $398,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

MASSACHUSETTS

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Barre Falls Dam, MA

AUTHORIZATION: Authorized by the Flood Control Act of 1941

LOCATION AND DESCRIPTION: Barre Falls Dam is located along the Ware River in the Town of Barre, Massachusetts, about 31.9 miles above the confluence of the Swift River. The dam is located about 13 miles northwest of Worcester, Massachusetts. Barre Falls Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 885 feet long with a maximum height of 69 feet; 3 earth-filled dikes with rock and gravel slopes, totaling 3,215 feet in length; an uncontrolled ogee weir spillway, 60 feet wide with a maximum discharge capacity of 16,300 cubic feet per second; and a 9.7-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides flood storage capacity of 24,000 acre-feet to control runoff from its net drainage area of 55 square miles.

FISCAL YEAR 2019 ALLOCATION: $1,029,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used to perform routine operation and maintenance (O&M) work. Funds were also used for specific work activities including repairing the Pine Plains Road Bridge and replacing the furnace and fuel tank.

FISCAL YEAR 2020 ALLOCATION: $1,129,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an update to the emergency action plan.

BUDGETED AMOUNT FOR FY 2021: **M:** $10,000 **O:** $688,000 **T:** $698,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $568,000 – Funds will be used for commonly performed O&M work.

RC: $50,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $80,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $109.6 million in flood damages since placed in service in 1958.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $248,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Birch Hill Dam, MA

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938

LOCATION AND DESCRIPTION: Birch Hill Dam is located along the Millers River, 27.3 miles above its junction with the Connecticut River. The dam lies about 1.3 miles east of South Royalston, Massachusetts and 7.5 miles northwest of Gardner, Massachusetts. Birch Hill Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,400 feet long with a maximum height of 56 feet; an uncontrolled ogee weir spillway, a total of 1,190 feet wide with a maximum discharge capacity of 56,600 cubic feet per second; and four rectangular outlet conduits with eight control gates. The reservoir provides a flood storage capacity of 49,900 acre-feet, to control runoff from its net drainage area of 175 square miles.

FISCAL YEAR 2019 ALLOCATION: $892,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used to perform specific work activities including replacement of boiler.

FISCAL YEAR 2020 ALLOCATION: $1,184,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including electrical repairs at gate house.

BUDGETED AMOUNT FOR FY 2021: **M:** $321,000 **O:** $896,000 **T:** $1,217,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,050,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including hydraulic steel structure inspections, repair electronics in the gate house and replace the security system.

RC: $46,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $121,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including creating forest cover GIS layer and pest and invasive species management.

WS: N/A

OTHER INFORMATION: Project has prevented $282.3 million in flood damages since placed in service in 1942.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $194,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Buffumville Lake, MA

AUTHORIZATION: The Flood Control Act of 1941

LOCATION AND DESCRIPTION: Buffumville Lake is located along the Little River, 1.3 miles upstream from its confluence with the French River and about 8 miles northeast of Southbridge, Massachusetts. The project is located in the Towns of Oxford and Charlton, Massachusetts. Buffumville Lake is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 3,255 feet long with a maximum height of 66 feet; an earth-filled dike with stone slope protection, a total length of 610 feet and a maximum height of 15 feet; an uncontrolled ogee weir spillway, 220-feet wide with a maximum discharge capacity of 29,800 cubic-feet-per-second; and three rectangular outlet conduits with one control gate. The reservoir provides a flood storage capacity of 12,720 acre-feet to control runoff from its net drainage area of 26.5 square miles.

FISCAL YEAR 2019 ALLOCATION: $724,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,130,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including updating the emergency action plan, hydraulic steel structure inspection and upgrade electrical services in gate tower and office.

BUDGETED AMOUNT FOR FY 2021: **M:** $279,000 **O:** $727,000 **T:** $1,006,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $815,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the upgrade of the electrical service to the gate house.

RC: $61,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $130,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $225.6 million in flood damages since placed in service in 1958.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $98,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cape Cod Canal, MA 2/

AUTHORIZATION: Rivers and Harbors Acts of 1927, 1935, 1945 and 1958; and amended by the Public Works Administration Program in 1933 and 1935, the Permanent Appropriations Repeal Act of 1934; and the Emergency Relief Program in 1935. The canal was purchased from the Boston, Cape Cod and New York Canal Company in accordance with a contract in 1921.

LOCATION AND DESCRIPTION: Cape Cod Canal is located about 50 miles south of Boston, Massachusetts and extends across a narrow neck of land joining Cape Cod to the mainland. The project provides for a channel 32-feet deep and 540- to 800-feet wide extending about 17.5 miles from deep water in Buzzards Bay to deep water in Cape Cod Bay. The project also includes jetties in the East Boat Basin and Onset Bay, two high-level highway bridges and a vertical lift railroad bridge, which cross the canal.

FISCAL YEAR 2019 ALLOCATION: $2,510,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,050,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: **M:** $95,000 **O:** $1,917,000 **T:** $2,012,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

FRM: N/A

RC: $1,827,000 **–** Funds will be used for commonly performed O&M work.

H: N/A

EN: $185,000 **–** Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project provides recreation opportunities to an average of 2,951,000 visitors each year and consists of 1,655 fee-owned acres of land.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $672,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

2/ The amounts and descriptions on this justification sheet reflect only the activities for this project funded from the Operation and Maintenance account. Corresponding project activities funded from the Harbor Maintenance Trust Fund are listed on a separate justification sheet.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Charles River Natural Valley Storage Areas, MA

AUTHORIZATION: The Water Resources Development Act of 1974 (P.L. 93-251)

LOCATION AND DESCRIPTION: The Charles River is located in eastern Massachusetts and extends inland about 80 miles from Boston Harbor southwesterly towards the Massachusetts and Rhode Island state line. The watershed covers approximately 307 square miles and project lands are located in 16 communities. The project provides for Federal acquisition and perpetual protection of 17 crucial natural valley storage areas totaling 8,115 acres in the middle and upper portion of the watershed. These areas provide natural flood storage to minimize the potential of flood losses within the watershed. Land acquisition began in May 1977 and was completed in September 1983.

FISCAL YEAR 2019 ALLOCATION: $387,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $398,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: **M:** $219,000 **O:** $169,000 **T:** $388,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $195,000 – Funds will be used for commonly performed O&M work.

RC: $32,000 - Funds will be used for commonly performed O&M work.

H: N/A

EN: $161,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $6.9 million in flood damages since the project was completed in 1983.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $62,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Conant Brook Dam, MA

AUTHORIZATION: Authorized by the Flood Control Act of 1960

LOCATION AND DESCRIPTION: Conant Brook Dam is located along Conant Brook, a tributary of Chicopee Brook, about two miles southeast of Monson, Massachusetts, in Hampden County. Conant Brook Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,050-feet long with a maximum height of 85 feet; an earth-filled dike 980 feet in length; an uncontrolled ogee weir spillway, 100-feet wide with a maximum discharge capacity of 10,750 cubic-feet-per-second; and a 36-inch diameter outlet conduit. The reservoir provides a flood storage capacity of 3,740 acre-feet, to control runoff from its net drainage area of 7.8 square miles.

FISCAL YEAR 2019 ALLOCATION: $363,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including construction of a site for park host and install water well and septic field.

FISCAL YEAR 2020 ALLOCATION: $412,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including adding stone fill to erosion rills and survey of top of dam and dike.

BUDGETED AMOUNT FOR FY 2021: **M:** $33,000 **O:** $447,000 **T:** $480,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $393,000 – Funds will be used for commonly performed O&M work.

RC: $50,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $37,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $8.7 million in flood damages since placed in service in 1966.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $81,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: East Brimfield Lake, MA

AUTHORIZATION: The Flood Control Act of 1941

LOCATION AND DESCRIPTION: East Brimfield Lake is located along the Quinebaug River, about 64.5 miles upstream from the confluence of the Quinebaug River with the Shetucket River. The Towns of Holland, Sturbridge and Brimfield, Massachusetts are located adjacent to project. The project is part of a comprehensive system of flood control projects within the Thames River Basin. The reservoir provides flood storage capacity of 32,220 acre-feet to control runoff from a drainage area of 67.5 square miles.

FISCAL YEAR 2019 ALLOCATION: $677,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,014,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including roof replacement on the gatehouse and generator building, update emergency action plan and hydraulic steel structure inspection.

BUDGETED AMOUNT FOR FY 2021: **M:** $173,000 **O:** $736,000 **T:** $909,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $794,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the replacement of the gatehouse roof.

RC: $55,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $60,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: East Brimfield Lake has prevented an estimated $245.4 million in flood damages since placed in service in 1960.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $67,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hodges Village Dam, MA

AUTHORIZATION: The Flood Control Act of 1941

LOCATION AND DESCRIPTION: Hodges Village Dam is located along the French River, about 15 miles upstream from its confluence with the Quinebaug River in Massachusetts. The project is located in the Town of Oxford, Massachusetts. Hodges Village Dam is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with a spillway and gate-controlled outlet.

FISCAL YEAR 2019 ALLOCATION: $718,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including update emergency action plan and conduct bridge inspections.

FISCAL YEAR 2020 ALLOCATION: $1,209,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including hydraulic steel structure inspection, replace emergency generator and fuel tank, replace log boom logs and tile gauge and install security gate and guardrail at the dam site.

BUDGETED AMOUNT FOR FY 2021: **M:** $201,000 **O:** $763,000 **T:** $964,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $806,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the replacement of an emergency generator and to install new security gates.

RC: $66,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $92,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $260.8 million in flood damages since placed in service in 1959. The reservoir provides a flood storage capacity of 13,250 acre-feet to control runoff from its net drainage area of 31.1 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $73,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Knightville Dam, MA

AUTHORIZATION: Flood Control Acts of 1936 and 1938

LOCATION AND DESCRIPTION: Knightville Dam is located on the Westfield River, about 27.5 miles above its junction with the Connecticut River and four miles north of Huntington, Massachusetts. Knightville Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with a spillway and a gate-controlled outlet.

FISCAL YEAR 2019 ALLOCATION: $1,270,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including install weirs at toe wall, conduct service bridge repairs, replace log boom logs and pest and invasive species management.

FISCAL YEAR 2020 ALLOCATION: $1,093,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including rehabilitating emergency gate and replacing windows on dam gatehouse.

BUDGETED AMOUNT FOR FY 2021: **M:** $408,000 **O:** $756,000 **T:** $1,164,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,031,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including to investigate water damage to gatehouse, rehabilitate an emergency gate and replace the security system.

RC: $51,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $82,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $701.3 million in flood damages since placed in service in 1941. The project reservoir provides a flood storage capacity of 49,000 acre-feet to control runoff from its net drainage area of 162 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $333,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Littleville Lake, MA

AUTHORIZATION: The Flood Control Act of 1958

LOCATION AND DESCRIPTION: Littleville Lake is located along the Middle Branch of the Westfield River, about one mile above its confluence with the main stem of the Westfield River and two miles north of Huntington, Massachusetts. Littleville Lake is part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with a spillway, a gate-controlled outlet for flood control and gate-controlled outlet for water supply.

FISCAL YEAR 2019 ALLOCATION: $749,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including modifying the seepage monitoring system.

FISCAL YEAR 2020 ALLOCATION: $824,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an inundation map for Saddle Dike.

BUDGETED AMOUNT FOR FY 2021: **M:** $946,000 **O:** $822,000 **T:** $1,768,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,599,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replace electrical service and distribution system, replace a security system and replace windows in gatehouse .

RC: $42,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $91,000 – Funds will be used for commonly performed O&M work.

WS: $36,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including water supply tower vibration investigation.

OTHER INFORMATION: The project has prevented an estimated $244.0 million in flood damages since placed in service in 1965. The project reservoir provides a flood storage capacity of 32,400 acre-feet to control runoff from its net drainage area of 52.3 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $225,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: New Bedford Hurricane Barrier, MA

AUTHORIZATION: The Flood Control Act of 1958 (P.L. 85-500).

LOCATION AND DESCRIPTION: New Bedford Hurricane Barrier is located in Buzzards Bay in southeastern Massachusetts, along the north shore of Clark Cove and at the mouth of New Bedford Harbor. The project is located in the Cities of New Bedford and Fairhaven, Massachusetts. The project consists of an earth-filled dike, which extends 4,500 feet across New Bedford and Fairhaven Harbor in the vicinity of Palmer Island, with a 150-foot wide gate opening to accommodate navigation. The project also includes an earth-filled dike extension, 3,600 feet long, which protects the western waterfront, as well as 5,800 feet of earthen dike to protect Clark Cove and 3,100 feet of earthen dike to protect Fairhaven. The project is operated and maintained by the City of New Bedford, with the exception of the navigation gate, which is operated and maintained by the US Army Corps of Engineers.

FISCAL YEAR 2019 ALLOCATION: $730,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $906,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairing concrete stairs and lighting.

BUDGETED AMOUNT FOR FY 2021: **M:** $589,000 **O:** $432,000 **T:** $1,021,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,021,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including repairing stairs and lighting.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $60.9 million in flood damages since placed in service in 1966.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $506,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tully Lake, MA

AUTHORIZATION: The Flood Control Acts of 1936 and 1938

LOCATION AND DESCRIPTION: Tully Lake is located along the East Branch of the Tully River, about 3.9 miles above its junction with the Millers River. The project is located in Royalston, Massachusetts. Tully Lake is part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with a spillway and gate-controlled outlet.

FISCAL YEAR 2019 ALLOCATION: $905,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing basin and project office heating systems and replace vinyl siding on three buildings.

FISCAL YEAR 2020 ALLOCATION: $1,233,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including electrical repairs at gate house.

BUDGETED AMOUNT FOR FY 2021: **M:** $387,000 **O:** $936,000 **T:** $1,323,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,145,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including hydraulic steel structure inspection, gatehouse electrical repair, replace fencing, waterproof gatehouse exterior and replace security system.

RC: $57,000 **–** Funds will be used for commonly performed O&M work.

H: N/A

EN: $121,000 - Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $88.0 million in flood damages since being placed in service in 1949. The reservoir provides a flood storage capacity of 22.5 thousand acre-feet to control runoff from its net drainage area of 50-square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $122,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: West Hill Dam, MA

AUTHORIZATION: The Flood Control Act of 1944

LOCATION AND DESCRIPTION: West Hill Dam is located along the West River in Massachusetts, three miles above its confluence with the Blackstone River and 2.5 miles northeast of Uxbridge, Massachusetts. West Hill Dam is part of a comprehensive system of flood control projects within the Blackstone River Basin. The project consists of an earth-filled dam with rock slope protection, 2,400-feet long and a maximum height of 48 feet; four earth-filled dikes with rock and gravel slopes, totaling 1,910 feet in length; an ogee weir spillway, 50-feet long with a maximum discharge capacity of 8,900-cubic feet-per-second; and three rectangular outlet conduits.

FISCAL YEAR 2019 ALLOCATION: $1,174,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing the gatehouse generator, replacing three sluice gate operators, replacing a backhoe, and initiating a master plan.

FISCAL YEAR 2020 ALLOCATION: $917,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the West Hill Dam gatehouse electrical rehabilitation.

BUDGETED AMOUNT FOR FY 2021: M: $279,000 **O:** $770,000 **T:** $1,049,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $891,000 **–** Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including repair gatehouse electric system.

RC: $86,000 **–** Funds will be used for commonly performed O&M work.

H: N/A

EN: $72,000 **–** Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $174.0 million in flood damages since being placed in service in 1961. The reservoir provides a flood storage capacity of 12.4 thousand acre-feet to control runoff from its net drainage area of 27.9 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $242,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Westville Lake, MA

AUTHORIZATION: The Flood Control Act of 1941

LOCATION AND DESCRIPTION: Westville Lake is located along the Quinebaug River, about 56.7 miles upstream from its confluence with the Shetucket River. The project is located in the Towns of Sturbridge and Southbridge, Massachusetts. Westville Lake is part of a comprehensive system of flood control projects within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 560-feet long and a maximum height of 78 feet; an uncontrolled ogee weir spillway, 200-feet wide with a maximum discharge capacity of 24,500-cubic feet-per-second; and three rectangular outlet conduits with a control gate.

FISCAL YEAR 2019 ALLOCATION: $1,040,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including conducting a bathymetric sediment survey, repairs to Old South Street Bridge, replace the gatehouse roof, and initiating a master plan.

FISCAL YEAR 2020 ALLOCATION: $1,271,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairs to Old South Street bridge.

BUDGETED AMOUNT FOR FY 2021: **M:** $139,000 **O:** $722,000 **T:** $861,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $752,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the repair of guard rails ($85,000).

RC: $56,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $53,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The reservoir provides a flood storage capacity of 11.1 thousand acre-feet to control runoff from its net drainage area of 99.5 square miles. Project has prevented an estimated $99.6 million in flood damages since being placed in service in 1962.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $313,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

MICHIGAN

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Keweenaw Waterway, MI 2/

AUTHORIZATION: Rivers and Harbors Act of 1890, as amended by the Rivers and Harbors Acts of 1910 (PL 61-264), 1919 (PL 65-323), and 1935 (PL 74-409); and the Water Resources Development Act of 1986 (PL 99-662).

LOCATION AND DESCRIPTION: The Keweenaw Waterway is located in the Keweenaw Peninsula of the upper peninsula of Michigan between Keweenaw Bay and Lake Superior. The west, upper entrance is 169 miles east of Duluth, MN and the east, lower entrance is approximately 60 miles west of Marquette, MI. It is a low-use, deep-draft commercial waterway with an authorized depth of 32 feet in the upper entrance channel, 28 feet in the lower entrance channel, and 25 feet in the interior channel. There are over 18 miles of maintained channels and approximately 24,300 feet of structures including breakwaters, piers, and revetments. Portions of the project are leased to State and local entities for recreational uses.

FISCAL YEAR 2019 ALLOCATION: $27,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $35,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $10,000 **T:** $10,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $10,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Keweenaw Waterway is a critical Harbor of Refuge on Lake Superior. Commodities shipped or received include gasoline and various other products.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $19,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

2/ The amounts and descriptions on this Justification Sheet reflect only activities funded from the Operation and Maintenance Appropriation. Activities funded from the Harbor Maintenance Trust Fund are listed on a separate Justification Sheet.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Sebewaing River, MI

AUTHORIZATION: Rivers and Harbors Act of 1896; and Flood Control Act of 1941 (PL 77-228).

LOCATION AND DESCRIPTION: Sebewaing River is located on Saginaw Bay in the thumb of Michigan on the west shore of Lake Huron, about 20 miles northeast of the mouth of the Saginaw River. It is a low-use, shallow-draft recreational navigation project and a flood and coastal storm damage reduction project. The navigation project has an authorized depth of eight feet with 15,000 feet of maintained Federal channel. The flood and coastal storm damage reduction project includes 11,000 feet of levees and 1,900 feet of floodwalls. The operation and maintenance (O&M) of both the navigation portion and the flood control portion is a Federal responsibility.

FISCAL YEAR 2019 ALLOCATION: $526,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work and to implement interim risk reduction measures related to levee safety concerns. Funds were also used for specific work activities including engineering and design of repairs to 150 feet of the failing anchored steel sheet pile wall.

FISCAL YEAR 2020 ALLOCATION: $59,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work and to implement interim risk reduction measures related to levee safety concerns.

BUDGETED AMOUNT FOR FY 2021: M: $99,000 **O:** $38,000 **T:** $137,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $137,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $27,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: St. Marys River, MI 2/

AUTHORIZATION: Act of 8 Jul 1856, as amended by the Rivers and Harbors Acts of 1870, 1886, 1892, 1902 (PL 57-157), 1905 (PL 58-215), 1907 (PL 59-168), 1909 (PL 60-317), 1912 (PL 62-241), 1915 (PL 63-291), 1922 (PL 67-362), 1927 (PL 69-560), 1930 (PL 71-520), 1935 (PL 74-409), 1942 (PL 77-490), 1945 (PL 79-14), 1946 (PL 79-525), 1956 (PL 84-434 and PL 84-663); and the Water Resources Development Acts of 1986 (PL 99-662), 1990 (PL 101-640), 1996 (PL 104-303), 1999 (PL 160-53), and 2007 (PL 110-114).

LOCATION AND DESCRIPTION: St. Marys River is one of the Great Lakes' connecting channels and is 75-miles long. The river flows southeast from the eastern end of Lake Superior into the northern end of Lake Huron along the border between the State of Michigan and the Canadian Province of Ontario. This high-use, deep-draft commercial channel includes 75 miles of maintained channels with depths varying from 27 to 29 feet in the St. Marys River, Lake Superior and Lake Huron approaches. This project also includes two active locks (one 110-foot by 1200-foot chamber and one 80-foot by 800-foot chamber, both with a 21 foot lift), two approach canals, a hydropower plant, and a visitor center.

FISCAL YEAR 2019 ALLOCATION: $3,045,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $8,225,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacement of the control room HVAC system, repair of concrete spalling of main unit spiral cases, replacement of medium voltage circuit breaker and repair/refurbishment of the powerhouse crane.

BUDGETED AMOUNT FOR FY 2021: M: $1,828,000 **O:** $1,456,500 **T:** $3,284,500 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

FRM: N/A

RC: $276,500 of which $31,500 is allocated for Joint activities - Funds will be used for commonly performed O&M work.

H: $3,008,000 of which $315,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: N/A

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities, shared between business lines as follows: HYD – 10%, NAV – 89%, and REC – 1%. The hydropower plant provides all of the power for operation of the Soo Locks complex and supports the base load for the area grid, meeting up to 15 percent of regional power demand.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $454,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $100,000.
2/ The amounts and descriptions on this justification sheet reflect only activities funded from the Operation and Maintenance Appropriation. Activities funded from the Harbor Maintenance Trust Fund are listed on a separate justification sheet.

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MINNESOTA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Big Stone Lake and Whetstone River, MN and SD

AUTHORIZATION: Flood Control Act of 1965; Rivers and Harbors Act of 1965

LOCATION AND DESCRIPTION: The project is on the Minnesota River near Ortonville and Odessa, Minnesota, and Big Stone City, South Dakota, at the outlet of Big Stone Lake and in Big Stone and Lac qui Parle Counties, Minnesota, and Grant County, South Dakota. The authorized project provides for wildlife conservation and development, flood control, and recreation. It also includes a dam on the Minnesota River near Odessa, Minnesota, which has created a conservation pool of 2,800 acres for wildlife purposes. Upstream improvements include construction of bank protection and related work along the lower six mile reach of Whetstone River in South Dakota, modification of the existing dam and silt barrier at the outlet of Big Stone Lake, and channel improvement on the Minnesota River for three miles below the outlet control dam.

FISCAL YEAR 2019 ALLOCATION: $457,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $251,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $266,000 **T:** $266,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $249,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $17,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Highway 75 Dam at Big Stone Lake project located near Odessa, MN, impounds water on the Minnesota River to form the Big Stone National Wildlife Refuge operated by the US Fish & Wildlife Service. The project provides flood control benefits on the Minnesota River mainstem in conjunction with the Lac qui Parle project downstream and has prevented over $4.1 million in damages since construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $134,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Duluth-Superior Harbor, MN and WI 2/

AUTHORIZATION: Rivers and Harbors Act of 1896, as amended by the Rivers and Harbors Acts of 1902 (PL 57-154), 1907 (PL 59-168), 1916 (PL 64-108), 1919 (PL 65-323), 1927 (PL 69-560), 1930 (PL 71-520), and 1960 (PL 86-645); and the Acts of 28 May 1908 (PL 60-153), 16 Jul 1952 (PL 82-568), and 4 Oct 1961 (PL 87-388); and the Water Resource Development Acts of 1974 (PL 93-251) and 1986 (PL 99-662).

LOCATION AND DESCRIPTION: Located on the western end of Lake Superior, Duluth-Superior Harbor is a deep-draft, high-use commercial harbor with over 18 miles of maintained channel. Maintenance dredging is required on an annual basis. Dredged material has historically been placed in the Erie Pier Confined Disposal Facility (CDF) which is near capacity and requires fill management activities to ensure its sustainability. The project also includes over 10,000 feet of structures including breakwaters, piers, revetments. The project also includes the Lake Superior Maritime Museum and Visitor Center.

FISCAL YEAR 2019 ALLOCATION: $743,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly operation and maintenance (O&M) work. Funds were also used for specific work activities including to update the project master plan.

FISCAL YEAR 2020 ALLOCATION: $578,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $358,000 **T:** $358,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $358,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Duluth-Superior Harbor ships and receives over 40 million tons annually, and a loss of two feet of channel depth due to annual shoaling, channel blockages or deteriorated wave climate can result in increased transportation costs up to $13 million annually. The visitor center and park has annual visitation in excess of 600,000 and provides educational opportunities related to commercial navigation and overall Corps of Engineers missions.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $185,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $20,000.

2/ The amounts and descriptions on this Justification Sheet reflect only activities funded from the Operation and Maintenance Appropriation. Activities funded from the Harbor Maintenance Trust Fund are listed on a separate Justification Sheet.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lac qui Parle Lakes, Minnesota River, MN

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: The Lac qui Parle project consists of four water control structures on the Chippewa and Minnesota Rivers and is located near Montevideo, Minnesota. The project lays along Marsh Lake and Lac qui Parle and the Minnesota River between head of Marsh Lake and Granite Falls, Minnesota. The project includes a main dam at the outlet of Lac qui Parle Lakes designed to control the Marsh Lake Reservoir. There is also a dam and diversion channel near Watson, Minnesota designed to divert Chippewa River floodwaters into Lac qui Parle Reservoir.

FISCAL YEAR 2019 ALLOCATION: $7,359,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairs to dam concrete, completing repairs to road, spillway, and tainter gate, lighting upgrades, installing ground source heat pump, and upgrading building insulation.

FISCAL YEAR 2020 ALLOCATION: $1,227,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including master plan update.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $951,000 **T:** $951,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $863,000 – Funds will be used for commonly performed O&M work.

RC: $58,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $30,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project provides flood protection for Montevideo and areas downstream on the Minnesota and Chippewa Rivers. Since construction, the project has prevented over $44 million in damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $6,363,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mississippi River between Missouri River and Minneapolis (MVP Portion), MN

AUTHORIZATION: Rivers and Harbors Act of 1930, P.L. 71-520 and Flood Control Act of 1944, P.L. 78-534

LOCATION AND DESCRIPTION: The project extends from Minneapolis, MN to Guttenberg, IA with 244 miles of 9-foot channel for high waterway navigation, 13 locks and dams, and 14 commercial or small boat harbors. The project includes a recreation area at Blackhawk Park located at river mile 670 below La Crosse, WI, and natural resource management for approximately 22,000 acres above normal pool elevation.

FISCAL YEAR 2019 ALLOCATION: $71,220,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including lower pool 2 channel improvements, replacement of miter gates at L&D 5a, 8, and 10, auxiliary closures at L&D 5 and 5a, and plans and specifications at L&D 4.

FISCAL YEAR 2020 ALLOCATION: $55,031,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging, development of a watershed master plan, supervision and administration of a previously awarded contract for the traveling kevel system at Lock 6, a cultural resources plan and real estate boundary surveying and rectification.

BUDGETED AMOUNT FOR FY 2021: M: $56,470,000 **O:** $29,082,000 **T:** $85,552,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $83,580,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging and replacement of miter gate anchorages at four lock and dam sites.

FRM: N/A

RC: $794,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an electric utility vehicle at Blackhawk Park.

H: N/A

EN: $1,178,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: This channel is a primary route for shipping commodities through the Midwest to and from the Gulf of Mexico.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,833,000. There was an additional $54,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Orwell Lake, MN

AUTHORIZATION: Rivers and Harbors Act of 1950; Flood Control Acts of 1950 and 1944; Fish and Wildlife Coordination Act of 1958

LOCATION AND DESCRIPTION: The Orwell Dam and Lake is located on the Otter Tail River near Fergus Falls, Minnesota. The structure consists of an earth dam and concrete control works with a tainter gate. Most of the land, except for a part at the dam site, has been made available to the Minnesota Department of Natural Resources for wildlife conservation purposes.

FISCAL YEAR 2019 ALLOCATION: $503,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing metal shrouds for tainter gate and upgrade water control data instrumentation.

FISCAL YEAR 2020 ALLOCATION: $514,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $170,000 **O:** $635,000 **T:** $805,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $718,000 – Funds will be used for commonly performed O&M work. Funds will be also be used for specific work activities including to replace motor control switch gear panel.

RC: $55,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $32,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The land base around Orwell Lake is leased to the State of Minnesota and operated as Orwell Wildlife Management area. Operation of Orwell Lake provides flood control benefits downstream on the Otter Tail River and continuing on the Red River of the North after it intersects the Otter Tail in Breckenridge, Minnesota. The damages prevented since construction are estimated at more than $707 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $136,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Red Lake Reservoir, MN

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Red Lake Indian Reservation in northwest Minnesota, in the northeastern part of Clearwater County. Red Lake is a natural fresh water lake with two sections (the upper and lower lake) separated by a peninsula. Red Lake Dam is a small concrete dam at the outlet of Lower Red Lake.

The Indian Service (now the Bureau of Indian Affairs) constructed this dam in 1931, with stop logs to control the water levels of Red Lake. In 1951, the Corps replaced the stop logs with slide gates, and assumed responsibility for operation of the dam. The discharge of water from its outlet forms the beginning of the Red Lake River, which eventually connects with the Red River of the North at East Grand Forks, Minnesota. The Corps also channelized portions of the river below the dam to a point roughly three miles downstream. At that location, the Corps constructed two gated control structures to allow control of water to restore marsh wildlife habitat in this part of the reservation.

The Corps added a fish passage feature to the dam in 2010 to facilitate fish migration back into the lake from the Red Lake River. The Red Lake Band operates this feature in coordination with Corps water control, so the Corps can adjust gate settings on the dam. The Red Lake Band also operates the two gated control structures roughly three miles downstream of the dam, which support the marsh habitat.

FISCAL YEAR 2019 ALLOCATION: $142,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $193,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $6,000 **O:** $333,000 **T:** $339,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $313,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $26,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: None.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $27,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Reservoirs at Headwaters of Mississippi River, MN

AUTHORIZATION: Rivers and Harbors Acts of 1880, 1882 and 1958; Flood Control Acts of 1944 and 1958; Water Supply Act of 1958, Fish and Wildlife Coordination Act of 1958; Federal Water Pollution Control Act Amendments of 1972

LOCATION AND DESCRIPTION: The Reservoirs at the Headwaters of the Mississippi River project are located in north central Minnesota in Itasca, Beltrami, Hubbard, Aitkin, Cass, and Crow Wing counties. The reservoirs are Winnibigoshish, Leech Lake, Pokegama, Sandy Lake, Pine River, and Gull Lake. The six dams were constructed or re-constructed between 1900 and 1913 for the purpose of aiding navigation by stabilizing water flow in the Mississippi River between St. Paul, Minnesota, and Prairie du Chien, Wisconsin. The project includes six Corps managed campgrounds and several day use areas serving approximately 1.7 million visitors annually.

FISCAL YEAR 2019 ALLOCATION: $5,192,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were used for specific work activities including design for future repairs, stop log replacement, energy efficiency improvements, and re-survey and re-mark project boundaries at five of the six project sites.

FISCAL YEAR 2020 ALLOCATION: $11,912,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including plans and specifications to stabilize Gull Lake embankment, pest and invasive species management and the Sand Dam rehabilitation.

BUDGETED AMOUNT FOR FY 2021: M: $778,000 **O:** $3,588,000 **T:** $4,366,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,030,000 – Funds will be used for commonly performed O&M work.

RC: $1,622,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including acquisition of an electric utility vehicle at Leech Lake and at Sandy Lake.

H: N/A

EN: $714,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Although they were authorized primarily for navigation, the reservoirs operate to reduce flood stages in the vicinity of Aitkin and to facilitate use of the area for recreational purposes and fish and wildlife conservation. The regulated outflow from the reservoirs contributes to improved water supply, pollution abatement and industrial development. The project has prevented over $62 billion in damages through operation of water control structures since construction. Operations of the Headwaters Lakes support a significant number of Tribal Trust responsibilities in the area with many of the lakes located on Reservations; and close coordination with tribes, communities and their cultures is part of daily operations.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $307,000. There was an additional $10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: East Fork, Tombigbee River, MS

AUTHORIZATION: Flood Control Acts of 1936, 1938 and 1941

LOCATION AND DESCRIPTION: This 53 mile long flood risk management project is located on the Tombigbee River and its tributaries between the junction of Browns and Mackey's Creeks in Itawamba County, Mississippi to the Monroe County line. This project provides for maintenance of the channel to ensure flood risk management benefits for Itawamba County; conveys water to meet requirements of the US Fish and Wildlife Service for protection of endangered mussels; and ensures the ability to provide water supply for the City of Tupelo.

FISCAL YEAR 2019 ALLOCATION: $287,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $287,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $290,000 **O:** $0 **T:** $290,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $290,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project includes overhead clearing and general debris removal from the East Fork of the Tombigbee River and Mackey's Creek in Itawamba County, Mississippi.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $9,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Okatibbee Lake, MS

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Okatibbee Lake is located seven miles northwest of Meridian, Mississippi, at mile 37.7 on the Okatibbee Creek. The project includes a dam, a flood risk management reservoir and several recreation areas.

FISCAL YEAR 2019 ALLOCATION: $1,723,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including surveys for historic properties plan and cost savings measure to replace HVAC system.

FISCAL YEAR 2020 ALLOCATION: $1,699,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $588,000 **O:** $1,664,000 **T:** $2,252,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,108,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work including a dam safety periodic inspection.

RC: $1,022,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work including environmental compliance management , replacing failing sewer lift system and replacing failing water lines.

H: N/A

EN: $114,000 – Funds will be used for commonly performed O&M work.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Okatibbee Lake Project provides flood damage reduction for areas in Lauderdale/Clark Counties to include Meridian and Enterprise, Mississippi.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $544,000. There was an additional $1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pearl River, MS and LA

AUTHORIZATION: Rivers and Harbors Act of 1935, as modified by Rivers and Harbors Act of 1966

LOCATION AND DESCRIPTION: The project is a navigation channel on the Pearl River that originally extended 58 miles from the mouth of the Pearl River to the mouth of Bogalusa Creek at Bogalusa, LA. The project consisted of three locks and three weirs that provided a channel with minimum depth of 7 feet and a minimum bottom width of 100 feet. The project was placed in a caretaker status in 1995 and has been maintained only for maintenance and safety needs.

FISCAL YEAR 2019 ALLOCATION: $97,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $139,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $140,000 **T:** $140,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $140,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Since the project is in “Caretaker Status”, the structure is left unattended.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Clarence Cannon Dam and Mark Twain Lake, MO

AUTHORIZATION: Flood Control Acts of 1938 and 1962

LOCATION AND DESCRIPTION: The project is located on the Salt River at mile 63 above its confluence with the Mississippi River. This multi-purpose project provides flood risk management, hydropower, water supply, navigation, pollution abatement, fish and wildlife conservation, and recreation.

FISCAL YEAR 2019 ALLOCATION: $7,097,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including Water Valve Replacement and Installation of Low Flow Diaphragms, activities to promote preferred habitat for the Indiana and Gray Bat, and eradication of invasive species.

FISCAL YEAR 2020 ALLOCATION: $11,468,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including inspection of hydraulic steel structures, inspection of Clarence Cannon main dam spillway and visitor center pedestrian bridges, an emergency action plan exercise, cultural resource site monitoring and protection and Indian Creek group use campground electrical upgrades.

BUDGETED AMOUNT FOR FY 2021: M: $2,621,000 **O:** $4,427,000 **T:** $7,048,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $2,100, of which $2,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $1,519,200, of which $539,200 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2,927,500, of which $262,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activity to make efficiency improvements at recreation areas.

H: $1,515,100, of which $100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $973,500, of which $23,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: $110,600 of which $64,600 is allocated for Joint costs - Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: FRM - 60%, EN - 3%, WS - 7% and REC - 30 % (NAV and HYD < 0.001%). Funds will be used for commonly performed O&M work. FY 2018 project visitation was 1.33 million visits.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $12,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Clearwater Lake, MO

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: Clearwater Lake is located near Piedmont, Missouri, in Reynolds and Wayne Counties. There are 898 square miles of drainage area above the dam. The primary purpose is flood risk management, but the project also provides environmental and recreation outputs.

FISCAL YEAR 2019 ALLOCATION: $3,703,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to repair bronze side seals on three service gates and to relocate a group shelter in Webb Creek Park.

FISCAL YEAR 2020 ALLOCATION: $3,452,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairing foundation bedrock and right abutment of spillway and conducting an erodibility study.

BUDGETED AMOUNT FOR FY 2021: M: $772,000 **O:** $2,614,000 **T:** $3,386,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,040,000 – Funds will be used for commonly performed O&M work.

RC: $1,089,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $257,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Clearwater Lake is estimated to have prevented $334 million in flood damages since its construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $81,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Harry S. Truman Dam and Reservoir, MO

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941(P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: This multi-purpose project includes an earth-fill dam with a crest 114 feet above the original streambed, a tainter gate controlled spillway; and powerhouse with six inclined pump-generating units, with a combined nameplate capacity of 160,000 kilowatts, and reservoir storage capacity and is located one mile West of Warsaw, Missouri. This project provides flood damage reduction, hydropower, water supply, fish and wildlife, and recreation to central Missouri.

FISCAL YEAR 2019 ALLOCATION: $11,507,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including pond levee structures repair, rehabilitation of marshes, and the removal of overgrowth on the Savanna/Glade ecosystem.

FISCAL YEAR 2020 ALLOCATION: $11,559,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary inspection and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $4,292,000 **O:** $7,517,000 **T:** $11,809,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,313,700, of which $1,313,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2,876,100, of which $356,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $6,247,700, of which $548,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including facility security assessments and facility security physical/cyber improvements and modifications.

EN: $1,361,500, of which $419,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary inspection and maintenance.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities shared between business lines as follows: HYD – 21%, FRM – 50%, EN – 16%, and REC – 13%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $869,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Little Blue River Lakes, MO

AUTHORIZATION: Flood Control Acts of 1968 (P.L. 90-483)

LOCATION AND DESCRIPTION: Little Blue River Lakes consists of two multipurpose lakes in Kansas City, Missouri, County of Jackson. Blue Springs Lake is located on the East Fork of the Little Blue River about ½ miles south of U.S. Highway 40; and the dam is an earth-fill embankment 2,500 feet long with a crest of 80 feet, and total reservoir storage capacity of 26,600 acre-feet. Longview Lake is located on the main stem at approximately 109th Street; and the dam is an earth-fill embankment 1,900 feet long with a crest of 117 feet, and total reservoir storage capacity of 46,900 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $1,400,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,396,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the emergency drawdown gate hydraulic cylinder repair.

BUDGETED AMOUNT FOR FY 2021: M: $1,436,000 **O:** $961,000 **T:** $2,397,0001 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,257,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the Longview embankment repair.

RC: $30,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $110,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1984 has totaled $95.7 million with an average annual economic benefit of $31.2 million. The project encompasses 7.5 thousand land acres, and 1.65 thousand water acres with 36 miles of shoreline. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $147,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Long Branch Lake, MO

AUTHORIZATION: Flood Control Acts of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: This multi-purpose project is located on the East Fork Little Chariton River in North- central Missouri, about two miles West of Macon, County of Macon. An earth-fill dam 3,800 feet long with a crest 76 feet above the original streambed, and total reservoir storage capacity of 64,500 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $2,611,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including an emergency gate stem and hydraulic system repair and replacement of a buried collector system.

FISCAL YEAR 2020 ALLOCATION: $879,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for the commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $184,000 **O:** $777,000 **T:** $961,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $740,000 – Funds will be used for commonly performed O&M work.

RC: $111,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $100,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Cumulative flood damages prevented since the project was put into service in 1979 has totaled $82.9 million with an average annual economic benefit of $7.0 million. The project encompasses 7.7 thousand land acres, and 2.4 thousand water acres with 24 miles of shoreline. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,348,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mississippi River between the Ohio and Missouri Rivers (Reg Works), MO and IL

AUTHORIZATION: Rivers and Harbors Acts of 1910, 1927, and 1930 as amended by the Rivers and Harbors Acts of 1945 and 1958.

LOCATION AND DESCRIPTION: Project extends from the mouth of the Ohio River to the Missouri River at the northern boundary of St. Louis, Missouri. It is a high use waterway/navigation project that includes 195 miles of river, a nine-foot navigation channel with a lateral canal and Lock 27 at Chain of Rocks, fixed crest rock dam, six recreational access areas, and stewardship of 10,000 acres of public lands.

FISCAL YEAR 2019 ALLOCATION: $20,911,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging, dike and revetments repairs, and lock modification and maintenance.

FISCAL YEAR 2020 ALLOCATION: $24,795,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging, dike and revetment repairs, and lock modification and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $23,161,000 **O:** $6,500,000 **T:** $29,661,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $26,456,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a hydraulic steel structures inspection, arc flash improvements, and dredging.

FRM: $2,294,000 – Funds will be used for commonly performed O&M work.

RC: $273,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $638,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Over 107 million tons of commodities passed through the project in FY 2017. The Chain of Rocks levee protects over 250 thousand people and $4.5 billion in economic value. FY 2017 project public visitation was over 187 thousand visitors.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $97,000. There was an additional $860,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pomme de Terre Lake, MO

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1944 (P.L. 78-534), 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: This is a multi-purpose project located four miles south of Hermitage and twenty miles north of Bolivar, Missouri, Counties of Hickory and Polk. The project includes an earth and rock-fill dam 4,630 feet long with a dike section on the left abutment, crest of 156 feet, and a reservoir storage capacity of 644,200 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $2,916,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including phase III of the water reallocation study.

FISCAL YEAR 2020 ALLOCATION: $2,824,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including completion of the water reallocation study and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $393,000 **O:** $2,600,000 **T:** $2,993,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,687,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary clearing.

RC: $875,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $431,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1961 has totaled $127.5 million with an average annual economic benefit of $10.7 million. The project encompasses 18 thousand land acres, and 7.8 thousand water acres with 113 miles of shoreline. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $315,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Smithville Lake, MO

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: This is a multi-purpose project located about one mile Northeast of Smithville, Missouri, and about five miles North of Kansas City, Missouri, Counties of Clay and Clinton. The project includes an earth-fill dam, 4,200 feet long with a crest 96 feet above the original streambed with dike 2,400 feet long. The dam has gated outlet works and an uncontrolled service spillway, and a total reservoir storage capacity of 241,500 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $1,959,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a shoreline protection bank stabilization.

FISCAL YEAR 2020 ALLOCATION: $3,614,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a bridge safety maintenance gutter system, a stability analysis, a modification of a stilling basin wall drain system, replacement of waterup valves and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $354,000 **O:** $1,499,000 **T:** $1,853,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,476,000 – Funds will be used for commonly performed O&M work.

RC: $138,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $229,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Cumulative flood damages prevented since the project was put into service in 1977 has totaled $1.6 billion with an average annual economic benefit of $18.5 million. The project encompasses 19.7 thousand land acres, and 7.2 thousand water acres with 175 miles of shoreline. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $23,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Stockton Lake, MO

AUTHORIZATION: Flood Control Act of 1954 (Public Law 83-780)

LOCATION AND DESCRIPTION: This multi-purpose project is a rock-shell dam with impervious core 5,100 feet long with a crest 156 feet above the original streambed; a gate-controlled over-fall spillway; a powerhouse with a single generating unit nameplate capacity of 45,200 kilowatts; and reservoir storage capacity of 1,651,000 acre-feet. The Project is located approximately one mile east of Stockton, Missouri, Counties of Cedar, Dade, and Polk.

FISCAL YEAR 20182019 ALLOCATION: $5,464,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to install a sewage lift station.

FISCAL YEAR 2020 ALLOCATION: $4,725,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $1,174,000 **O:** $4,841,000 **T:** $6,015,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,304,900, of which $1,304,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety reports and a physical/cyber security assessment.

RC: $2,184,400, of which $560,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety reports and a physical/cyber security assessment.

H: $1,903,700, of which $700 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety reports and a physical/cyber security assessment.

EN: $612,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities shared between business lines as follows: HYD – 0.04%, FRM – 69.93%, and REC – 30.03%. Cumulative flood damages prevented since the project was put into service in 1970 has totaled $352.9 million with an average annual economic benefit of $17.4 million. The project encompasses 58.8 thousand land acres, and 24.6 thousand water acres with 298 miles of shoreline. The power plant provides approximately 55 million Kilowatt hours (KWH) of energy annually to meet peak power demand periods with a single turbine unit. Average annual revenue and energy benefits of the power plant is $8.3 million. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $274,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Table Rock Lake, MO and AR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-685) as amended by the Flood Control Acts of 1941 (P.L. 77-228) and 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Table Rock Lake is located in Branson, Missouri, and is one of five multiple-purpose projects within the White River Basin. The authorized purposes are hydropower, flood risk management, and recreation. The project contains four 50-megawatt hydropower generators.

FISCAL YEAR 2019 ALLOCATION: $10,228,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed O&M work. Funds were also used for specific work activities including to acquire a backhoe for in-house maintenance repairs, replace a skid steer, conduct a power review, complete the shoreline management plan, survey the Cow Creek boundary line, and continue a water supply reallocation study.

FISCAL YEAR 2020 ALLOCATION: $10,354,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including riprap placement, hydropower operational data analysis, and a sedimentation resurvey.

BUDGETED AMOUNT FOR FY 2021: M: $3,325,000 **O:** $6,942,000 **T:** $10,267,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,563,100, of which $268,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2,550,000 – Funds will be used for commonly performed O&M work.

H: $3,991,900, of which $721,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $2,152,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities shared between business lines as follows: HYD – 73% and FRM – 27%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $890,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fort Peck Dam and Lake, MT

AUTHORIZATION: The Flood Control Act of 1944 (P.L. 78-534) and the Endangered Species Act of 1973 (P.L. 93-205)

LOCATION AND DESCRIPTION: The project is located twenty miles southeast of Glasgow, Montana on Montana Highway 24. Construction began in 1933 and was completed in 1940. The dam is 21,026 feet long and has a maximum height of 250.5 feet. The lake behind the dam measures 134 miles long and a maximum depth of 220 feet. The water at Fort Peck provides benefits of the flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply and water quality.

FISCAL YEAR 2019 ALLOCATION: $5,451,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including left abutment instrumentation maintenance, visual and non-destructive testing and inspection of spillway gate counterweight chain connector plates, periodic cultural resources artifacts inventories, collection review and site inspections, and an interim risk reduction management plan for Fort Peck Dam.

FISCAL YEAR 2020 ALLOCATION: $5,687,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including: conducting non-destructive testing on flood control facilities, stop-logs and emergency gates.

BUDGETED AMOUNT FOR FY 2021: M: $402,000 **O:** $4,906,000 **T:** $5,308,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $709,100, of which $709,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $970,800, of which $970, 800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,205,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including interpretive center building automation system upgrade.

H: $1,308,100, of which $1,308,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,106,000 - Funds will be used for commonly performed O&M work.

WS: $9,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities with a total allocation shared between business lines as follows: HYD – 44%, NAV – 24%, and FRM – 32%. Cumulative flood damages prevented through FY 2017 is $14.6 billion. Plant installed generation capacity of 185 megawatts, produced $23.9 million in power production in FY 2017. The project encompasses 388 thousand land acres, 260 thousand water acres with 1,520 miles of shoreline, and has a total reservoir storage capacity of 18.5 million acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $284,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Libby Dam, MT

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Libby Dam and Lake Koocanusa are 17 miles northeast of the city of Libby in Lincoln County and located on the Kootenai River in Montana. Libby Dam is a multi-purpose concrete gravity dam. It is authorized and operated for flood control, power generation, and regulation of stream flow for 16 downstream hydroelectric projects. The powerhouse came on line in 1975 and has five turbines with a total installed capacity of 605-megawatts. Libby Dam is a high-head dam and holds back 90 miles of water in Lake Koocanusa. Forty-eight miles of the reservoir lie within U.S. borders, the other 42 miles are in Canada.

FISCAL YEAR 2019 ALLOCATION: $2,610,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including NEPA analysis of the Columbia River Basin operations, sluice gate emergency bulkhead replacement and left abutment landslide detection equipment.

FISCAL YEAR 2020 ALLOCATION: $2,275,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M. Funds are also being used for specific work activities to include NEPA analysis of the Columbia River Basin operations, design for spillway gate and hoist rehabilitation, electronic security system, design for sluice gate and cylinder rehab and sluice gate controls installation.

BUDGETED AMOUNT FOR FY 2021: M: $364,000 **O:** $1,425,000 **T:** $1,789,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,098,000, of which $1,098,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $449,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $242,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including Section 106 mitigation.

WS: N/A

OTHER INFORMATION: Although this project is a multiple purpose project and includes features to generate hydropower, the Corps allocates all of the cost of the project's joint activities to the FRM business line as provided in the Libby Dam Project Design Memorandum 29, Cost Allocation, dated November 1976, as follows: FRM – 100%. The Corps funds the separable hydropower costs under a direct funding agreement with the Bonneville Power Administration, a power marketing agency.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,019. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Gavins Point Dam, Lewis and Clark Lake, NE and SD

AUTHORIZATION: The Flood Control Act of 1944 (PL 78-534) and the Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: Gavins Point Dam is located four miles west of Yankton, South Dakota on Highway 52. Gavins Point Dam construction began in 1952 and was completed in 1956. The dam measures 8,700 feet in length and has a maximum height of 74 feet. Lewis and Clark Lake is 25 miles long, creates 90 miles of shoreline, and has a maximum depth of 45 feet at the dam.

FISCAL YEAR 2019 ALLOCATION: $9,796,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including spillway gate fit for service analysis and testing, and archeological review and inspection.

FISCAL YEAR 2020 ALLOCATION: $9,982,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including master plan compliance, and dam safety instrumentation, data collection, analysis, FERC #537.

BUDGETED AMOUNT FOR FY 2021: M: $1,740,000 **O:** $8,263,000 **T:** $10,003,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $988,400, of which $988,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including instrumentation, data collection, analysis, FERC #537.

FRM: $1,353,200, of which $1,353,200 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including instrumentation, data collection, analysis, FERC #537.

RC: $732,000 – Funds will be used for commonly performed O&M work.

H: $6,235,400, of which $1,823,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including concrete repair powerhouse bridge and instrumentation, data collection, analysis, FERC #537.

EN: $684,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including archeological geophysical testing.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 44%, NAV – 24%, and FRM – 32%. Cumulative flood damages prevented at the project through FY 2017 is $786 million. Plant installed generation capacity of 132 megawatts, produced $22.9 million in power production in FY 2017. The project encompasses 35.4 thousand land acres, 23.7 thousand water acres with 90 miles of shoreline, and has a total reservoir storage capacity of 428 thousand acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $402,000. There was an additional $26,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Harlan County Lake, NE

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: A multi-purpose project that includes an earth-fill dam with a crest about 107 feet above original streambed; total length of 11,827 feet including a gate-controlled, concrete, gravity-type spillway; and reservoir located in south central Nebraska on the Republican River, 7 miles east of Alma and 60 miles south of Kearney, Nebraska. Project purposes include flood protection, irrigation, recreation, fish and wildlife, and water quality benefits to the south central Nebraska and north central Kansas regions.

FISCAL YEAR 2019 ALLOCATION: $2,200,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including facility security modifications and the replacement of a motor grader.

FISCAL YEAR 2020 ALLOCATION: $2,934,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a stilling basin dewatering, pest and invasive species management, dam safety foundation drain cleaning and sewage lagoon design, specifications and construction.

BUDGETED AMOUNT FOR FY 2021: M: $487,000 **O:** $2,023,000 **T:** $2,510,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,537,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a downstream corrugated metal pipe replacement.

RC: $775,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $198,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project cumulative flood damages prevented since the project was put into service in 1953 totals $3.8 billion with an average annual economic benefit of $50.7 million. The project encompasses 30 thousand land acres, 13 thousand water acres with 75 miles of shoreline, and has reservoir storage capacity of 164 thousand acre-feet. Agricultural irrigation is an authorized project purpose with delivery agreements between the Bureau of Reclamation and Bostwick Irrigation District providing water allocations up to 119 thousand acre-feet of water per year to 22.5 thousand acres of land in Nebraska and 42.5 thousand acres in Kansas. The project utilizes volunteers and partnerships to assist with maintenance activities, thereby reducing operation and maintenance expenses.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $43,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Missouri River - Kenslers Bend, NE to Sioux City, IA

AUTHORIZATION: The River and Harbor Act of 1945 (PL 79-14)

LOCATION AND DESCRIPTION: Missouri River Kenslers Bend Project provides operation and maintenance of 15 miles of the Missouri River channel stabilization from Big Sioux Bend near Sioux City, IA to Ponca Bend near Ponca, Nebraska. Project features include dikes, revetments, environmental notches, chevron dikes, L-dikes, sills, kicker dikes, chute closures, water control and water quality responsibilities.

FISCAL YEAR 2019 ALLOCATION: $46,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $112,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $35,000 **O:** $72,000 **T:** $107,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $107,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 totals $244 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Papillion Creek and Tributaries Lakes, NE

AUTHORIZATION: River and Harbor Act of 1968 (PL 90-483) and the Federal Water Project Recreation Act (PL 89-72)

LOCATION AND DESCRIPTION: The Papillion (Papio) Creek Projects consist of Glenn Cunningham, Standing Bear, Zorinsky and Wehrspann Lakes and Dams, all of which are located within the Greater Omaha area. The Corps of Engineers built the dams and developed the initial recreation plan as part of the Papio Creek and Tributaries lakes project. The dams and reservoirs were built to reduce flood damage in the Papio Creek watershed. Recreational opportunities, wildlife habitat and improved water quality are additional benefits derived from the Papios. The Corps cooperates with other agencies to manage and protect the natural resources of these lakes and surrounding lands.

FISCAL YEAR 2019 ALLOCATION: $1,023,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $952,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific activities including Papio Creek projects regional master plan development (phase 1).

BUDGETED AMOUNT FOR FY 2021: M: $126,000 **O:** $692,000 **T:** $818,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $707,000 – Funds will be used for commonly performed O&M work.

RC: $27,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $84,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 totals $101.7 million. The Papio Creek Projects encompass 4.2 thousand land acres, 1 thousand water acres with 22 miles of shoreline, and has a total reservoir storage capacity of 40 thousand acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $67,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Salt Creek and Tributaries, NE

AUTHORIZATION: The Flood Control Act of 1944 (P.L. 78-534) and the River and Harbor Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: The Salt Creek and Tributaries Flood Control Project in Nebraska was authorized by the Federal Flood Control Act of 1958 to provide flood damage reduction, water quality, recreation, and fish and wildlife enhancement. The basin drains a 1645 square mile area of southeastern Nebraska, encompassing the City of Lincoln. Salt Creek drains the southern and western part of the basin, while Wahoo Creek drains the northeastern portion. The ten Salt Creek Lakes cover 11,239 acres, of which 4,289 are surface acres of water. The Corps of Engineers leases all but one of its Salt Creek Reservoirs to the State of Nebraska Game and Parks Commission (NGPC). The NGPC refers to these projects as the Salt Valley Lakes. Holmes Lake is leased to the City of Lincoln, Nebraska.

FISCAL YEAR 2019 ALLOCATION: $4,110,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including updated failure inundation modeling and mapping, security risk assessment and construction of conduit seepage filters.

FISCAL YEAR 2020 ALLOCATION: $1,131,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including supervision and administration of previously awarded contract for construction of outlet conduit seepage filters - Yankee Hill and Twin Lakes.

BUDGETED AMOUNT FOR FY 2021: M: $197,000 **O:** $962,000 **T:** $1,159,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $981,000 – Funds will be used for commonly performed O&M work.

RC: $24,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $154,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 totals $408.4 million. The Salt Creek Projects encompass 10 thousand land acres, 4.3 thousand water acres with 65 miles of shoreline, and has a total reservoir storage capacity of 184 thousand acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $43,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Martis Creek Lake, NV and CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is 32 miles southwest of Reno. It consists of an earthen-fill dam and reservoir on Martis Creek, a tributary of Truckee River. The project is located in the Counties of Nevada and Placer of California and the County of Washoe of Nevada.

FISCAL YEAR 2019 ALLOCATION: $1,265,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also being used for specific work activities including drainage pipe repair design and an accelerograph replacement.

FISCAL YEAR 2020 ALLOCATION: $1,319,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including hydraulic steel structure inspection.

BUDGETED AMOUNT FOR FY 2021: M: $316,000 **O:** $1,520,000 **T:** $1,836,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,379,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an arc flash hazard analysis and a dam safety periodic inspection, period assessment, and reports.

RC: $225,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $232,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: N/A

OTHER INFORMATION: The project is currently not fully able to provide the benefits for which it was designed and constructed due to seepage problems and seismic concerns. A dam safety modification report is currently underway to determine the appropriate remediation efforts.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $266,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pine and Mathews Canyons Dams, NV

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Pine Canyon Dam is 100 miles northeast of the city of Las Vegas, and Mathews Canyon Dam is 5 miles northeast of Pine Canyon Dam. Both dams are earthen-fill, with spillways, service roads, and reservoirs. There are no recreation facilities.

FISCAL YEAR 2019 ALLOCATION: $808,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including installation of three seismographs.

FISCAL YEAR 2020 ALLOCATION: $1,198,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the minimum to comply with the Native American Graves Protection and Repatriation Act (NAGPRA).

BUDGETED AMOUNT FOR FY 2021: M: $185,000 **O:** $486,000 **T:** $671,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $646,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $25,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $11,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Blackwater Dam, NH

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938

LOCATION AND DESCRIPTION: Blackwater Dam is located along the Blackwater River, about 8.2 miles upstream from its junction with the Contoocook River. The project is located in the Towns of Webster and Salisbury, New Hampshire. Blackwater Dam is operated as part of a comprehensive system of flood control projects within the Merrimack River Basin. The project consists of an earth-filled dam with rock slope protection, 1,650 feet long with a maximum height of 28 feet; an uncontrolled ogee weir spillway, 240 feet wide with a maximum discharge capacity of 32,800 cubic feet per second; and four rectangular outlet conduits with four control gates, one of which is plugged. The reservoir provides a flood storage capacity of 46,000 acre-feet to control runoff from its net drainage area of 128 square miles.

FISCAL YEAR 2019 ALLOCATION: $815,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,010,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including resealing downstream training wall, hydraulic pump controllers, and survey of upstream side of gates.

BUDGETED AMOUNT FOR FY 2021: **M:** $177,000 **O:** $778,000 **T:** $955,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $800,000 – Funds will be used for commonly performed O&M work. Funds will also being used for specific work activities including hydraulic steel structure inspection and install emergency lighting.

RC: $51,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $104,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $128.3 million in flood damages since placed in service in 1941.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $101,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Edward MacDowell Lake, NH

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938

LOCATION AND DESCRIPTION: Edward MacDowell Lake is located along Nubanusit Brook, a tributary of the Contoocook River, 31 miles southwest of Concord, New Hampshire. The project is located in the Towns of Peterborough, Hancock, Dublin and Harrisville, New Hampshire. Edward MacDowell Lake is operated as part of a comprehensive system of flood control projects within the Merrimack River Basin.

FISCAL YEAR 2019 ALLOCATION: $725,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including management of archaeological and cultural resources.

FISCAL YEAR 2020 ALLOCATION: $879,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including electrical work in gatehouse and replace furnace at gate house.

BUDGETED AMOUNT FOR FY 2021: **M:** $180,000 **O:** $775,000 **T:** $955,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $803,000 - Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including installing a security alarm and a chimney liner.

RC: $59,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $93,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $42.9 million in flood damages since placed in service in 1950. The reservoir provides a flood storage capacity of 12,800 acre-feet to control runoff from its net drainage area of 44 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $230,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Franklin Falls Dam, NH

AUTHORIZATION: The Flood Control Acts of 1936 and 1938

LOCATION AND DESCRIPTION: Franklin Falls Dam is located along the Pemigewasset River, about 2.5 miles upstream of Franklin, New Hampshire, in the Towns of Franklin, Hill, Bristol, Sanborton, and New Hampton, New Hampshire. The project is operated as part of a comprehensive system of flood control projects within the Merrimack River Basin. The project consists of an earth-filled dam with a spillway and gate-controlled outlet.

FISCAL YEAR 2019 ALLOCATION: $1,176,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including the log boom replacement.

FISCAL YEAR 2020 ALLOCATION: $1,145,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including upgrading project office heating system, install fall protection in gatehouse, and service bridge-southwest fascia repair.

BUDGETED AMOUNT FOR FY 2021: **M:** $560,000 **O:** $786,000 **T:** $1,346,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,164,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including repairs to gatehouse windows.

RC: $74,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $108,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $514.3 million in flood damages since placed in service in 1943. The Franklin Falls Dam reservoir provides a flood storage capacity of 154,000 acre-feet to control runoff from its net drainage area of 1,000 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $85,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hopkinton-Everett Lakes, NH

AUTHORIZATION: The Flood Control Act of 1938

LOCATION AND DESCRIPTION: Hopkinton Lake is located along the Contoocook River, about 17.3 miles upstream of its junction with the Merrimack River and one-half mile upstream from the Village of West Hopkinton, New Hampshire. Everett Lake is located along the Piscataquog River, about 16 miles upstream of its junction with the Merrimack River and about 1.3 miles southeast of the Village of East Weare, New Hampshire. Hopkinton-Everett Lakes are operated as part of a comprehensive system of flood control projects within the Merrimack River Basin. Hopkinton Lake consists of an earth-filled dam with a spillway and a gate-controlled outlet. Everett Lake consists of an earth-filled dam with a spillway and a gate-controlled outlet.

FISCAL YEAR 2019 ALLOCATION: $1,669,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including concrete and metal repairs.

FISCAL YEAR 2020 ALLOCATION: $1,995,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including video inspection of Everett Dam conduit, update emergency action plan, hydraulic analysis of Everett Dam bituminous coated corrugated metal pipe, repainting Everett Dam gates and gate structures and replace Everett Dam hydraulic cylinder packings.

BUDGETED AMOUNT FOR FY 2021: **M:** $980,000 **O:** $1,763,000 **T:** $2,743,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,293,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including various steel repairs and repaint the flood gates.

RC: $166,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $284,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project has prevented an estimated $325.4 million in flood damages since placed in service in 1962. Hopkinton-Everett Lakes project provides a total flood storage capacity of 92,500 acre-feet to control runoff from their net drainage areas of 446 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $198,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Otter Brook Lake, NH

AUTHORIZATION: The Flood Control Act of 1954

LOCATION AND DESCRIPTION: Otter Brook Lake is located in Keene, New Hampshire, along Otter Brook, about 4.9 miles upstream from its junction with the Ashuelot River. Otter Brook Lake is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,288 feet long with a maximum height of 133 feet; an uncontrolled ogee weir spillway, 145-feet wide with a maximum discharge capacity of 40,000-cubic feet-per-second; and a 6-foot diameter horseshoe-shaped outlet conduit with three control gates. The reservoir provides a flood storage capacity of 18,320 acre-feet to control runoff from its net drainage area of 47.2 square miles.

FISCAL YEAR 2019 ALLOCATION: $1,381,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a project office addition, repair borrow area and evaluate seismic safety of project.

FISCAL YEAR 2020 ALLOCATION: $890,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including main electrical panel replacement in gatehouse, number one flood gate stem repair in gatehouse, and gatehouse roof fall protection railing.

BUDGETED AMOUNT FOR FY 2021: **M:** $173,000 **O:** $841,000 **T:** $1,014,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $782,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including to repair tow drain and replace gatehouse furnace.

RC: $129,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $103,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including invasive plant survey.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $107.1 million in flood damages since placed in service in 1958.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $937,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Surry Mountain Lake, NH

AUTHORIZATION: The Flood Control Acts of 1936 (P.L. 74-738) and 1938 (P.L. 75-761).

LOCATION AND DESCRIPTION: Surry Mountain Lake is located along the Ashuelot River, about 34.6 miles upstream from its junction with the Connecticut River and 5 miles north of Keene, New Hampshire. The project is located in the Towns of Surry and Gilsum, New Hampshire. Surry Mountain Lake is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with an uncontrolled spillway and a gated outlet.

FISCAL YEAR 2019 ALLOCATION: $793,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including invasive plant survey and reclaiming grassland habitat.

FISCAL YEAR 2020 ALLOCATION: $993,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including survey of upstream side of gates, generator replacement, and replace office roof.

BUDGETED AMOUNT FOR FY 2021: M: $1,066,000 **O:** $907,000 **T:** $1,973,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,684,000 **–** Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacement of two flood control service gates.

RC: $160,000 **–** Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including upgrading the water distribution system.

H: N/A

EN: $129,000 **–** Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an invasive plant survey.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $382.2 million in flood damages since placed in service in 1941. The reservoir provides a flood storage capacity of 33 thousand acre-feet to control runoff from its net drainage area of 100 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $54,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

NEW JERSEY

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Passaic River Flood Warning Systems, NJ

AUTHORIZATION: The Water Resources Development Act of 1976 authorized the study of the Passaic flooding problem. The Water Resources Development Act of 1990 authorized the recurring operational and maintenance costs for the computerized flood warning system.

LOCATION AND DESCRIPTION: Passaic Basin, Northern New Jersey. The Basin has a history of significant chronic flooding. The system provides critical rain and stream gage information for weather forecasts and warnings; immediate information access by first responders for mitigation action; a network to receive instantaneous watches/warnings; and a forum of quarterly meetings for multi-agency coordination. The system integrates information flow and flood mitigation activities for multi-level response from federal, state, and local agencies, including five New Jersey counties and 12 high-risk municipalities.

FISCAL YEAR 2019 ALLOCATION: $651,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $661,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including maintenance and repair of existing stream and rain gauges.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $450,000 **T:** $450,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $450,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This critical Flood Warning System (PFWS) is operated and maintained through an agreement with other federal and state agencies; specifically the U.S. Geological Survey and the New Jersey Department of Environmental Protection (NJDEP). Historical background of the Passaic Flood Warning System: Upon completion of the construction of the PFWS in the late 1980's, the local sponsor (NJDEP) became responsible for the O&M of the system; however, several issues led Congress to enact legislation (through WRDA 1992) to return ownership and O&M responsibilities to USACE (with a provision for 100% Federal funding). USACE in partnership with the U.S. Geological Survey is responsible for the operation and maintenance of the system as well as the day-to-day operations.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $255,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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NEW MEXICO

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Abiquiu Dam, NM

AUTHORIZATION: Flood Control Acts of 1948, 1950, and 1960
Water Resources Development Act of 1986 and
Energy and Water Development Appropriations Act of 1997 (emergency gates)
P.L. 87-483, 1962 - (authorized the San Juan-Chama Project to transfer interbasin water)
P.L. 97-140, 1981 - (authorized the storage of that water in Abiquiu Reservoir)

LOCATION AND DESCRIPTION: Abiquiu Dam is located in the County of Rio Arriba, six miles west of the town of Abiquiu, NM and 120 miles north of the city of Albuquerque. The dam is 32 miles upstream from the confluence of the Rio Chama and the Rio Grande. The project consists of an earthen-fill dam, reservoir, outlet works, spillway, recreation facilities, and a non-Federal hydroelectric facility.

FISCAL YEAR 2019 ALLOCATION: $3,678,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including camera survey of the float well, design bulkhead placement, service and emergency gate repairs, upstream conduit inspection, grout cracks in stilling basin training wall and replace ladder, grout curtain repair evaluation and new riprap to eroded areas.

FISCAL YEAR 2020 ALLOCATION: $3,297,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the float well and vent pipe evaluations, shotcrete repairs, toe drain, bulkhead design and flume repairs.

BUDGETED AMOUNT FOR FY 2021: M: $1,044,000 **O:** $2,347,000 **T:** $3,391,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,516,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including administration building roof repair, elevator system upgrades and repairs, and outlet works repairs.

RC: $514,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $267,000 – Funds will be used for commonly performed O&M work.

WS: $94,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2018: flood control damages prevented $562.1 million, sediment control benefits $6.5 million and irrigation benefits $0.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,068,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cochiti Lake, NM

AUTHORIZATION: River and Harbor Act of 1960, Title II; Supplemental Authorization P.L. 88-293 (1964); and Water Resources Development Act of 1976

LOCATION AND DESCRIPTION: Cochiti Lake is located in the County of Sandoval, on land owned by the Cochiti Nation. It is 50-river-miles north of the city of Albuquerque, New Mexico, at river-mile 340 on the Rio Grande. The project consists of an earthen-fill dam, spillway, outlet works, and recreation facilities. Cochiti Lake is authorized to maintain a 1,200-surface-acre, permanent recreation pool using water from the San Juan-Chama project of the US Bureau of Reclamation, and sufficient water annually to offset evaporation from the area.

FISCAL YEAR 2019 ALLOCATION: $3,756,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including the purchase of a man basket for the tele-reach lift, the purchase and install a radio remote controller for the first floor control tower crane, replace the wireless internet link to the control tower, replace vehicle bay on northwest side of the administration building, replace water side and oil side gate stem packing glands on all gates and service and emergency Gate Repairs.

FISCAL YEAR 2020 ALLOCATION: $4,146,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including service and emergency gate repairs and to upgrade phones and phone lines.

BUDGETED AMOUNT FOR FY 2021: M: $307,000 **O:** $3,019,000 **T:** $3,326,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,501,000 – Funds will be used for commonly performed O&M work.

RC: $668,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $157,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY2018: flood control damages prevented $651.7 million, sediment control benefits $5.0 million, and irrigation benefits $0.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $553,000. There was an additional $6,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

29291APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Conchas Lake, NM

AUTHORIZATION: Emergency Relief Act of 1935, Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Conchas Dam and Reservoir is 34 miles northwest of the town of Tucumcari in the County of San Miguel, New Mexico. It is located on the Canadian River 743 miles upstream from the mouth of the Canadian and Arkansas Rivers. Conchas Dam and Reservoir drainage area is 7,409 square-miles. The project consists of a concrete dam structure, earthen-fill embankments, a reservoir, outlet works, and recreation facilities. A State Park is also located at the project.

FISCAL YEAR 2019 ALLOCATION: $2,699,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including installation of administration area fire suppression system.

FISCAL YEAR 2020 ALLOCATION: $4,402,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including irrigation headworks south and north side (design only), repair seals on bridge, reseal main dam bridge deck, and hydrological modeling.

BUDGETED AMOUNT FOR FY 2021: M: $836,000 **O:** $1,919,000 **T:** $2,755,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,100,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including to repair air bent gallery access ladders.

RC: $500,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $155,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY 2018: flood control damages prevented $81,000, sediment control benefits $6.2 million, and irrigation benefits $13.2 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $792,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Galisteo Dam, NM

AUTHORIZATION: Rivers and Harbors Act of 1960, Title II (PL 86-845)

LOCATION AND DESCRIPTION: Galisteo Dam is 45 miles north of the city of Albuquerque and 20 miles southwest of the city Santa Fe in the County of Santa Fe. It is located on Galisteo Creek twelve miles upstream from its confluence with the Rio Grande. The project consists of an earthen-fill dam, spillway, and outlet works. Dam safety modifications were completed in 1998 to raise the dam and widen the spillway to the present configuration.

FISCAL YEAR 2019 ALLOCATION: $724,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including the design of permanent solution to drainage issues on the downstream embankment and abutment roads and perimeter fence replacement.

FISCAL YEAR 2020 ALLOCATION: $1,064,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including perimeter fence replacement.

BUDGETED AMOUNT FOR FY 2021: M: $126,000 **O:** $563,000 **T:** $689,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $619,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the embankment vegetation removal upstream and downstream.

RC: $46,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $24,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY2018: flood control damages prevented $46,026,100, sediment control benefits $224,100, and irrigation benefits $0. Efforts will be made to continue the control of invasive species, primarily salt cedar, within the upstream basin and on the upstream face of the dam. This ongoing eradication effort will be followed by area restoration with native vegetation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $472,000. There was an additional $1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Jemez Canyon Dam, NM

AUTHORIZATION: Flood Control Acts of 1948 and 1950

LOCATION AND DESCRIPTION: Jemez Canyon Dam is located in the County of Sandoval five miles northwest of the city of Bernalillo and 25 miles northwest of the city of Albuquerque. It is located on the Rio Jemez 2.8 miles upstream from its confluence of the Rio Grande. The project consists of an earthen-fill dam, a spillway, outlet works, and recreation facilities.

FISCAL YEAR 2019 ALLOCATION: $864,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including survey condition of toe drain outlet pipes.

FISCAL YEAR 2020 ALLOCATION: $968,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $64,000 **O:** $716,000 **T:** $780,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $717,000 – Funds will be used for commonly performed O&M work.

RC: $16,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $47,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY2018: flood control damages prevented $60,923,200, sediment control benefits $2,115,400, and irrigation benefits $0. Work continues on addressing impacts to the Santa Ana Pueblo's ancestral Tamaya village that has drainage problems attributable to USACE construction of a "ring levee" for high flood storage protection.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $337,000. There was an additional $1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Santa Rosa Dam and Lake, NM

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Santa Rosa Dam and Lake is in the County of Guadalupe seven miles north of the city of Santa Rosa and 120 miles from the city of Albuquerque. It is located on the Pecos River at river mile 766.4. The project consists of an earthen-fill dam, a spillway, a reservoir, outlet works and recreation facilities. A New Mexico State Park is also located at the project.

FISCAL YEAR 2019 ALLOCATION: $1,371,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,812,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including for service and emergency gate repairs and Voice over Internet Protocol installation.

BUDGETED AMOUNT FOR FY 2021: M: $281,000 **O:** $1,093,000 **T:** $1,374,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,102,000 – Funds will be used for commonly performed O&M work.

RC: $135,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $137,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY2018: flood control damages prevented $9.2 million, sediment control benefits $2.4 million, and irrigation benefits $6.3 million. The project has an identified environmental liability caused by mercury in the reservoir sediments.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $210,000. There was an additional $4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Two Rivers Dam, NM

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: The project is located in the County of Chaves County, 14 miles southwest of the city of Roswell. Operation and Maintenance (O&M) of the project is accomplished by contracting with the Chaves County Flood Control Commission. The project consists of two earthen-fill dams (one on the Rio Hondo and the other on Rocky Arroyo, tributaries of the Pecos River), a reservoir, and a spillway.

FISCAL YEAR 2019 ALLOCATION: $1,062,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including design work to replace a failing trash rack upstream of the dam, developing a hydrologic modeling and monitoring system for dam safety.

FISCAL YEAR 2020 ALLOCATION: $701,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $270,000 **O:** $870,000 **T:** $1,140,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,055,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including to recoat air vent shaft.

RC: $45,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $40,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Accumulated damages prevented by the project since completion through FY2018: flood control damages prevented $46.3 million, sediment control benefits $1.2 million, and irrigation benefits $0. There is an on-going issue with the City of Roswell regarding floodwaters on the Rio Hondo and Rocky Arroyo below Two Rivers Dam.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $450,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Upper Rio Grande Water Operations Model, NM

AUTHORIZATION: Flood Control Act of 1944, Section 7

LOCATION AND DESCRIPTION: The project is focused on the Rio Grande System Hydrologic Unit Code Region 13, Sub regions 1301 to 1309. Upper Rio Grande Water Operations Model (URGWOM) is a computational model developed through an interagency effort and is used to simulate processes and operations of facilities. It also facilitates flood risk management operations, forecasting, accounting, and management of water in the Rio Grande Basin. The project is a critical component used by the U.S. Army Corps of Engineers and other Federal agencies to develop operational scenarios for Endangered Species Act Compliance. URGWOM is also a key tool used to provide water managers with a transparent, consistent, and common set of data to support water management decisions.

FISCAL YEAR 2019 ALLOCATION: $739,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,302,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including utilizing the rule based river system modeling tool "CADSWES RiverWare", enhanced model rule set, and URGWOM model development.

BUDGETED AMOUNT FOR FY 2021: M: $110,000 **O:** $835,000 **T:** $945,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $945,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including purchase and maintenance of water management.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: URGWOM is an important tool for completing long-term planning studies to evaluate impacts of changes to the system or proposed actions analyzed as potential solutions for addressing the water needs in the basin. It is a critical tool for accounting and managing water in the Rio Grande watershed.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $151,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

NEW YORK

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Almond Lake, NY

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738) amended by Flood Control Act 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Almond Lake is near Hornell, New York on Canacadea Creek, a tributary of the Canisteo River, which flows into the Chemung River. Chemung River flows into the Susquehanna River. The dam is an earthen-fill structure, 1,260-feet long rising 90-feet above the streambed, with a gated-outlet conduit in the left abutment, and a concrete spillway in a natural saddle beyond the left abutment. The reservoir has a storage capacity of 14,800 acre-feet at the spillway crest and has an area of 490 acres when filled to that level. The project controls a drainage area of 56 square miles or 36-percent of the watershed of the Canisteo River upstream from Hornell. An additional portion of the watershed is controlled by Arkport Dam. The project forms part of the protection for Hornell, Canisteo, and Addison and reduces flood heights at other localities on the Canisteo and Chemung rivers.

FISCAL YEAR 2019 ALLOCATION: $734,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including an hydraulic steel structure assessment, a National Register nomination evaluation and removal of submerged woody debris from intake tower trash racks.

FISCAL YEAR 2020 ALLOCATION: $818,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including underwater inspection.

BUDGETED AMOUNT FOR FY 2021: M: $113,000 **O:** $392,000 **T:** $505,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $472,000 – Funds will be used for commonly performed O&M work.

RC: $18,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $15,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Steuben County operates and maintains the Kanakadea Recreation Area under a real estate agreement. Operation of the project provides benefit to a population at risk of 300,000. Flood damages prevented through FY 2018 are $148 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $318,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Arkport Dam, NY

AUTHORIZATION: Flood Control Act of 1936, amended by Flood Control Act of 1938 and described in House Document 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: Arkport Dam is located near Hornell, New York, on the Canisteo River, a tributary of the Chemung River, which flows into the Susquehanna River. The dam is an earthen-fill structure, 1,200-feet long and rising 113 feet above the streambed, with a concrete spillway and an un-gated outlet in the right abutment.

FISCAL YEAR 2019 ALLOCATION: $327,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $486,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an underwater inspection and an emergency exercise.

BUDGETED AMOUNT FOR FY 2021: M: $79,000 **O:** $267,000 **T:** $346,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $338,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $8,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 300,000. Flood damages prevented are estimated through FY 2018 at $50 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $102,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: East Sidney Lake, NY

AUTHORIZATION: Flood Control Act of 1936, as amended by Flood Control Act of 1938

LOCATION AND DESCRIPTION: East Sidney Lake is located on Ouleout Creek, five miles above the confluence of Ouleout Creek with the Susquehanna River and six miles upstream from Unadilla, New York. The dam is a combined earthen-fill and concrete gravity-type structure with a spillway and gate-controlled outlets in the concrete section.

FISCAL YEAR 2019 ALLOCATION: $758,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including installing energy efficient windows.

FISCAL YEAR 2020 ALLOCATION: $678,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including four design documentation reports.

BUDGETED AMOUNT FOR FY 2021: M: $163,000 **O:** $890,000 **T:** $1,053,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,017,000 – Funds will be used for commonly performed O&M work.

RC: $21,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $15,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project forms part of the flood protection for Binghamton, New York. The project receives runoff from a drainage area of 102 square miles, exclusive of the separately-controlled Chenango River. Operation of the project provides benefit to a population at risk of 305,000. Flood damages prevented are estimated through FY 2018 at $298 million. The Town of Sidney, New York, operates and maintains the East Sidney recreation area under a real estate agreement.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $273,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mount Morris Dam, NY

AUTHORIZATION: The Flood Control Act of 1944 (P.L. 78-534) and Section 5110 of the Water Resources Development Act of 2007 (P.L. 110-114), as amended

LOCATION AND DESCRIPTION: Mount Morris Dam is a dry-bed dam that provides flood damage reduction, recreation, and environmental stewardship for the metropolitan area of Rochester, NY. It also provides flood control for other residential areas, farmlands, and industrial developments in the lower Genesee River Valley. This project includes a visitor center and natural resource management facilities.

FISCAL YEAR 2019 ALLOCATION: $3,758,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including engineering and design activities for the dam access elevator repair, the north side adit tunnel, cleaning the interior drains, and evaluating alternatives for two unused penstocks to prevent further settlement and movement problems.

FISCAL YEAR 2020 ALLOCATION: $3,616,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including, investigation, engineering and design into settlement and movement observed within penstock monoliths, pest and invasive species management and maintenance of Visitors Centers.

BUDGETED AMOUNT FOR FY 2021: M: $1,523,000 **O:** $2,097,000 **T:** $3,620,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,263,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including engineering and design upstream filet repairs and engineering and design maintenance bulkheads.

RC: $250,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $107,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The dam serves 161,000 people who reside and work within the Genesee River 100-year flood plain.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $102,000. There was an additional $195,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $421,600.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Southern New York Flood Control Projects, NY

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Project consists of ten local flood protection projects located in New York on tributaries of the North Branch of the Susquehanna River in the cities of Oxford, Avoca, Binghamton, Canisteo, Corning, Elmira, Hornell, Lisle, Whitney Point Village, and Addison.

FISCAL YEAR 2019 ALLOCATION: $845,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $875,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $299,000 **O:** $661,000 **T:** $960,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $960,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Southern New York Local Flood Protection Projects provide for a variety of Federally-constructed channels, levees, floodwalls, check dams and other drainage structures and flood protection treatments. The Federal Government retains responsibility for maintenance of at least some portions of these projects based on the authorizing language. Local interests are responsible for the remaining maintenance. Operation of the project provides benefit to a population at risk of 100,000. Flood damages prevented are estimated through FY 2018 at $2.6 billion.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $246,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Whitney Point Lake, NY

AUTHORIZATION: Flood Control Act of 1936, amended by Flood Control Act of 1938

LOCATION AND DESCRIPTION: Whitney Point Lake is near Whitney Point, New York, on the Otselic River, a tributary of the Tioughnioga River that discharges into the Chenango River which in turn discharges into the Susquehanna River at Binghamton, New York. The dam is an earthen-fill structure, with a concrete spillway and a gated outlet. The project forms part of the protection for Binghamton, New York, and reduces flood heights on the lower Chenango River and throughout the Susquehanna River Valley downstream from Binghamton.

FISCAL YEAR 2019 ALLOCATION: $1,485,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a piezometer replacement, monumentation replacement, design/plans/specs to stabilize crib wall and design documentation report for outlet works gate and hoist systems.

FISCAL YEAR 2020 ALLOCATION: $1,434,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam safety deficiency remediation for flood risk management.

BUDGETED AMOUNT FOR FY 2021: M: $187,000 **O:** $980,000 **T:** $1,167,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,107,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an emergency exercise.

RC: $29,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $31,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The reservoir has a storage capacity of 86.4 thousand acre-feet and controls a drainage area of 255 square miles, the entire watershed of the Otselic River, and 16-percent of the Chenango River watershed upstream from Binghamton, New York. The project forms part of the protection for Binghamton and reduces flood heights on the lower Chenango River and throughout the Susquehanna River Valley downstream from Binghamton. Operation of the project protects a population at risk of 300 thousand. Flood damages prevented through FY 2018 are an estimated $739 million. The Broome County Department of Parks and Recreation operates and maintains Dorchester Park under a real estate agreement.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $475,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

NORTH CAROLINA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Atlantic Intracoastal Waterway (AIWW), NC

AUTHORIZATION: River and Harbor Acts of 1912, 1927, 1930, 1935, 1937, 1938, 1948, 1950, 1954, 1960 (Section 107), 1966 and 1970 and the Water Resources Development Act of 1976.

LOCATION AND DESCRIPTION: This project is located on the east coast of North Carolina and consists of both high and low use inland navigation channels which run from the Commonwealth of Virginia to Little River, South Carolina, a distance of 308 miles. The authorized project provides for a waterway 12-feet deep, with widths varying from 90 feet in land cuts to 300 feet in open waters. The project also includes numerous side channels with varying project dimensions.

FISCAL YEAR 2019 ALLOCATION: $5,542,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging and clearing and snagging.

FISCAL YEAR 2020 ALLOCATION: $6,183,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds will also be used for specific work activities including dredging.

BUDGETED AMOUNT FOR FY 2021: M: $ $3,225,000 **O:** $400,000 **T:** $3,625,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $3,625,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project also supports the following users: U.S. Coast Guard search and rescue operations, U.S. Marine Corps and U.S. Naval riverine training operations, barge traffic supporting intermodal transportation to deep draft ports, military equipment and supply transportation barges and vessels, commercial and recreational vessels, National Oceanic and Atmospheric Administration vessels, and U.S. Army Corps of Engineers vessels. This waterway supports the North Carolina State Ports Authority (bulk-cargo ships) and NUCOR Steel and PCS Phosphate shipments through Morehead City Harbor, North Carolina. This portion of the channel is classified as high use and represents 50 percent of the length of the AIWW within the state of North Carolina.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $4,271,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: B. Everett Jordan Dam and Lake, NC

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: The project is located on the Haw River in central North Carolina, 4.3 miles above its mouth and 2.5 miles north of Moncure, North Carolina. It provides flood risk management, recreation and other purposes to the public. The project includes an earthen dam 1,330-feet long with a maximum height of 112 feet above the streambed; an uncontrolled, unpaved chute spillway; a controlled 19-foot diameter outlet structure; and saddle dikes just beyond the spillway. The reservoir is operated as part of a coordinated system for flood risk management in the Cape Fear River basin.

FISCAL YEAR 2019 ALLOCATION: $4,763,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M). Funds were also used for specific work activities including plans and specifications to replace rip rap, inspection of vehicle access bridge, replace/refurbish two water control gates and Dam Safety Inspections of conduit, Tower interior and gates, toe drain system, and Operation Condition Assessment.

FISCAL YEAR 2020 ALLOCATION: $1,893,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including the repairs to Jordan Dam Saddle Dike.

BUDGETED AMOUNT FOR FY 2021: M: $794,000 **O:** $1,752,000 **T:** $2,546,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,660,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities to perform Formal Periodic Inspection.

RC: $420,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $453,000 – Funds will be used for commonly performed O&M work.

WS: $13,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A non-Federal hydropower generating facility is currently operating at this project.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,742,000. There was an additional $18,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cape Fear River above Wilmington, NC 2/

AUTHORIZATION: River and Harbor Acts of 1910, 1934, 1935, 1937 and 1965; and Flood Control Act of 1944, Section 4

LOCATION AND DESCRIPTION: The shallow draft navigation project is located in Bladen County in southeastern North Carolina and consists of three Federally-built and maintained locks and dams. The locks and dams were constructed to provide a navigable channel for commercial barges from Wilmington to Fayetteville, NC, a distance of about 111 river miles. This project currently has only minor commercial navigation traffic. The dams also provide "impoundments of convenience" for water intakes for upstream communities and businesses. The grounds at Lock & Dam #2 are being utilized on a quarterly basis by the U.S. Military. The U.S. Navy and the special forces of the U.S. Army utilize the locks and surrounding infrastructure as unique training opportunities.

FISCAL YEAR 2019 ALLOCATION: $55,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $139,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $171,000 **T:** $171,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $171,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Locks No. 1 and 2 are currently rated as Dam Safety Action Classification II structures. A fish passage structure was completed in November 2012 at Lock No.1 as an approved mitigation measure for deepening the Wilmington Harbor 96 Act Navigation channel project.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

2/ The amounts and descriptions on this justification sheet reflect only the activities for this project funded from the Operation and Maintenance account. Corresponding project activities funded from the Harbor Maintenance Trust Fund are listed on a separate justification sheet.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Falls Lake, NC

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: The project is located on the Neuse River about 10 miles north of Raleigh, North Carolina and provides flood risk management, water supply, recreation and other purposes to the public. The project includes an earthen dam which is 1,915 feet long with a maximum height of 95 feet above the streambed; an uncontrolled chute spillway 100 feet wide located in the east abutment, and a controlled 17.4-foot diameter outlet structure. This project is operated as part of a coordinated system for flood risk management in the Neuse River basin.

FISCAL YEAR 2019 ALLOCATION: $3,279,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including inspection of vehicle access bridge and surface on Falls control tower, installation of Weir and monitor discharge, restoration of stem guide for service gate 5, refurbishment/replacement of the first of four main water control gates, replace and repair piezometer, addition of downstream piezometers, revise Dam Safety communication plan, toe drain inspection and repair, repair undermined riprap and integrated cultural resource management plan surveys.

FISCAL YEAR 2020 ALLOCATION: $1,759,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including inspect and repair of Emergency Gate Lifting System ($95,000).

BUDGETED AMOUNT FOR FY 2021: M: $1,383,000 **O:** $1,608,000 **T:** $2,991,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,091,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including perform a precise alignment survey, control tower bridge inspection and replace Emergency and Service Gates.

RC: $389,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $501,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Dam is currently rated as a Dam Safety Action Classification III structure.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,160,000. There was an additional $16,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: W. Kerr Scott Dam and Reservoir, NC

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The project is located on the Yadkin River about 6 miles upstream from Wilkesboro, North Carolina and provides flood risk management, recreation, fish and wildlife conservation, water supply and other benefits to the public. The project includes a rolled earth-fill dam over 1,700 feet long with a maximum height of 148 feet above the streambed and a controlled 12.3-foot diameter outlet structure. An emergency spillway is located near the north abutment of the dam in a rock cut.

FISCAL YEAR 2019 ALLOCATION: $3,378,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also being used for specific work activities including renegotiation of water supply agreements, dam safety periodic inspection, and cost savings measures to upgrade the HVAC system and windows to be Energy-Star certified.

FISCAL YEAR 2020 ALLOCATION: $3,317,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including renegotiation of water supply agreements, dam safety periodic inspection, and cost savings measures to upgrade the HVAC system and windows to be Energy-Star certified.

BUDGETED AMOUNT FOR FY 2021: M: $257,000 **O:** $2,792,000 **T:** $3,049,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,148,000 – Funds will be used for commonly performed O&M work.

RC: $1,550,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including environmental compliance.

H: N/A

EN: $341,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A non-Federal hydropower structure add-on license has been issued and the Corps is working with the licensee on reviewing a revised preliminary plan. Wilkes County, one of the primary water supply customers, is continuing to pursue construction of a reservoir intake structure. An environmental assessment was completed with a finding of no significant impact. A real estate easement has been issued and Wilkes County continues to move forward to construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $391,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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NORTH DAKOTA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Bowman Haley Lake, ND

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Located twelve miles southeast of Bowman, North Dakota. Bowman-Haley Dam was constructed for flood damage reduction, fish and wildlife enhancement, and recreation, as well as municipal and industrial water supply. Construction of the dam began in June 1964 and was completed in 1966. The dam measures approximately 5,730 feet in length, with a maximum height of 79 feet from the stream bed to the top of the dam. Bowman-Haley Lake formed at the confluence of Spring Creek, Alkali Creek, and North Fork Grand River; has 17 miles of shoreline and an average depth of 39 feet.

FISCAL YEAR 2019 ALLOCATION: $325,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including updating hydrology and routing for the inflow design flood.

FISCAL YEAR 2020 ALLOCATION: $314,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $240,000 **T:** $240,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $184,000 – Funds will be used for commonly performed O&M work.

RC: $6,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $50,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 totals $27.2 million. The project encompasses 6,720 land acres, 1,764 water acres with 17 miles of shoreline, and has a total reservoir storage capacity of 91 thousand acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $82,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Garrison Dam, Lake Sakakawea, ND

AUTHORIZATION: The Flood Control Act of 1944 (PL 78-534) and the Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: The Garrison Project is located 75 miles upstream from Bismarck, North Dakota. Garrison Dam construction began in 1947 and was completed in 1953. The dam measure 13,200 feet long and has a maximum height of 210 feet. Lake Sakakawea is 178 miles long with approximately 1,300 miles of shoreline and a maximum depth of 180 feet. The water at Garrison Dam provides benefits of flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply and water quality.

FISCAL YEAR 2019 ALLOCATION: $15,921,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including Williston Levee inundation mapping, Williston pumping plant stilling basin remote operated vehicle inspection, develop an interim risk reduction management plan for the Snake Creek embankment, cultural site surveys, boundary locating and monitoring and fencing, testing and analysis to determine spillway gate fitness for service, assessment and rehabilitation of Snake Creek relief wells and installation of downstream campground rural water line to connect to a local water supply.

FISCAL YEAR 2020 ALLOCATION: $16,391,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including analysis for hydropower operational data, spillway stop log inspection, bridge inspections of Garrison spillway and intake structure bridges, spillway gate fitness for service analysis and testing and bank stabilization repair of Government Bay archaeological site.

BUDGETED AMOUNT FOR FY 2021: M: $2,067,000 **O:** $13,238,000 **T:** $15,305,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $1,231,100, of which $1,231,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $2,277,600, of which $1,685,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $852,000 – Funds will be used for commonly performed O&M work.

H: $8,252,300, of which $2,271,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $2,677,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 44%, NAV – 24%, and FRM – 32%. Cumulative flood damages prevented at the project through FY 2017 is $19.5 billion. Plant installed generation capacity of 583 megawatts, produced $72.9 million in power production in FY 2017. The project encompasses 462.5 thousand land acres, 376.5 thousand water acres with 1,881 miles of shoreline, and has a total reservoir storage capacity of 23.5 million acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $426,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Homme Lake, ND

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The Homme Lake dam is on the South Branch of Park River about 4 miles upstream from Park River, North Dakota and 62.1 miles above the mouth of Park River. South, Middle, and North Branches are headwater streams of Park River and rise in Cavalier County in northeastern North Dakota and flow easterly to an almost common confluence near Grafton, North Dakota.

FISCAL YEAR 2019 ALLOCATION: $452,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $362,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $292,000 **T:** $292,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $273,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $19,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Homme Lake was authorized and constructed for water supply and flood control. It provides backup water supply for the communities of Park River and Grafton, ND. The project also provides flood risk reduction benefits to downstream areas and has prevented approximately $2.9 million in damages since construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $38,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lake Ashtabula and Baldhill Dam, ND

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Baldhill Dam is on the Sheyenne River, 16 miles upstream from Valley City, ND, and about 271 miles above the mouth. The Sheyenne River begins in central North Dakota and flows 500 miles generally southeast to enter the Red River of the North about 10 miles north of Fargo, North Dakota. Baldhill Dam was constructed to reduce flood damages, primarily at Valley City, and to alleviate water shortages in municipal and rural areas along the Sheyenne River and the Red River of the North. Placed into operation in 1950, the dam is a 1,650 foot long compacted earth structure with concrete gravity control works 140 feet in length. The reservoir, Lake Ashtabula, has a capacity of 68,600 acre feet at normal pool level.

FISCAL YEAR 2019 ALLOCATION: $1,979,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including updating the master plan, ogee crest concrete repairs, lighting upgrades, installing ground source heat pump, and upgrading building insulation.

FISCAL YEAR 2020 ALLOCATION: $1,572,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $105,000 **O:** $1,447,000 **T:** $1,552,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $906,000 – Funds will be used for commonly performed O&M work.

RC: $305,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $341,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project provides limited protection from floods downstream from the dam. It also provides sufficient water flow during dry periods to meet water supply needs of municipalities and rural areas along the Sheyenne River and the Red River downstream from the mouth of the Sheyenne River. The project has prevented over $477,000,000 in damages through operations of the dam since construction, and the water supply benefits are critical to the downstream municipalities. Lake Ashtabula is recognized by local, state and Federal partners as a major natural resource asset in the State of North Dakota.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $253,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pipestem Lake, ND

AUTHORIZATION: Rivers and Harbors Act of 1962 (PL 87-874)

LOCATION AND DESCRIPTION: Located four miles north of Jamestown, North Dakota, off highway 52/281. Pipestem Dam was constructed for flood damage reduction, fish and wildlife enhancement, and recreation. Construction of the dam began in June 1971, and was completed in 1973. The dam measures approximately 4,000 feet in length, with a maximum height of 107.5 feet from the stream bed to the top of the dam. Pipestem Lake is 5.5 miles long and has a maximum depth of 30 feet under normal operation. The lake drains an approximate 594 square mile area, and has a multipurpose storage capacity of 8,944 acre-feet.

FISCAL YEAR 2019 ALLOCATION: $592,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $699,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $34,000 **O:** $604,000 **T:** $638,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $477,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including Pipestem outlet works watertight door rehabilitation.

RC: $29,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $132,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 totals $166.1 million. The project encompasses 4.2 thousand land acres, 840 water acres with 15 miles of shoreline, and has a total reservoir storage capacity of 143 thousand acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $364,000. There was an additional $16,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Souris River, ND

AUTHORIZATION: Water Resources Development Act of 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: The project is located in Ward, Renville, McHenry, and Bottineau Counties in northwestern North Dakota. The project consists of eight water control structures and several mitigation features all located within the Upper Souris and J. Clark Salyer National Wildlife Refuges.

FISCAL YEAR 2019 ALLOCATION: $1,564,000

DESCRIPTIONS OF WORK FOR FY 2018: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were used for specific work activity including replacement of dam bulkheads and repairs of the tainter gate at Lake Darling dam.

FISCAL YEAR 2020 ALLOCATION: $382,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $387,000 **T:** $387,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $387,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: A Memorandum of Understanding (MOU) between the Department of the Interior (Fish and Wildlife Service) and the Department of the Army was executed in 1989 establishing procedures, administration, cooperation and coordination between respective agencies for construction, operation and maintenance, rehabilitation and replacement for project flood control and mitigation features. This MOU in conjunction with International Agreements with Canada commits the Corps to several water management, water quality, cyclical and major maintenance responsibilities. Lake Darling Dam which is part of the Souris River Projects complex, located on the Souris River near Minot, ND, has prevented approximately $185 million in damages since construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $890,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Alum Creek Lake, OH

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Alum Creek Lake is located in Delaware County, OH on Alum Creek of the Big Walnut Creek, a tributary of the Scioto River. It is 26 miles above the mouth of Alum Creek and 157 miles above the mouth of the Scioto River. The project includes Alum Creek Lake, which is impounded by a rolled earth fill dam with a gated concrete spillway. The crest length of the dam is 10,200 feet. The dam was completed in August of 1974.

FISCAL YEAR 2019 ALLOCATION: $2,034,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities which included cleaning relief wells.

FISCAL YEAR 2020 ALLOCATION: $2,005,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including completing Survey Monument Markers, and a Historic Properties Management Plan.

BUDGETED AMOUNT FOR FY 2021: M: $562,000 **O:** $1,369,000 **T:** $1,931,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,461,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activity including completing Survey Monument Markers.

RC: $220,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $130,000 – Funds will be used for commonly performed O&M work.

WS: $120,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project has prevented over $227,500,000 in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $27,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Berlin Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Berlin Lake Dam is located on the Mahoning River in Mahoning and Portage Counties, OH, about 10 miles upstream from Milton Dam (Non-Federal Project) and about 35 miles upstream from Warren. The lake is located in Mahoning, Portage, and Stark Counties, OH. Berlin Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $3,703,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including security measures and cultural resources site monitoring and protection.

FISCAL YEAR 2020 ALLOCATION: $3,366,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam safety inspection activities, real estate boundary and flowage easement inspection, monitoring and maintenance and to replace the Mill Run Campground sewage ejector stations.

BUDGETED AMOUNT FOR FY 2021: M: $616,000 **O:** $2,562,000 **T:** $3,178,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,280,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an emergency tabletop exercise, operational condition assessment, and trunnion anchorage evaluation.

RC: $713,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $177,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary survey and rectification.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Berlin Lake has prevented more than $2,000,000,000 in damages since its completion in 1943. Additionally, the lake has historically served as a water supply for the Mahoning Valley Sanitary District. The estimated revenue from the water supply contract is between $25,000 and $50,000.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $399,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Caesar Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Caesar Creek Lake is located in Warren, Clinton and Greene Counties in Ohio. The dam is earthen- and rock-fill with four saddle dams, outlet works, and spillway. The dam is 165 feet high and 2,650 feet long. It is the site of a class "A" visitor center and is world renowned for its 450 million year old Ordovician fossil beds exposed by the project's emergency spillway. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2019 ALLOCATION: $2,498,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including modeling work to update the inflow design flood and stilling basin repair and slush grouting.

FISCAL YEAR 2020 ALLOCATION: $2,908,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including bridge inspections and evaluations, dewatering stilling basin, movement monument surveys, solar power installation, bank stabilization, and endangered species habitat work.

BUDGETED AMOUNT FOR FY 2021: M: $486,000 **O:** $1,764,000 **T:** $2,250,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,850,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including to replace elevator controls.

RC: $256,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $136,000 – Funds will be used for commonly performed O&M work.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $354,300,000 in flood damages since 1977.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $265,000. There was an additional $266,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Clarence J. Brown Dam and Reservoir, OH

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Clarence J. Brown Dam & Reservoir is located in the northeastern corner of Clark County near Springfield, OH. The project is on Buck Creek, about 7 miles above the confluence with the Mad River, a tributary of the Great Miami River. The 72-foot high and 6,620-foot long dam is earthen-fill with gated controlled outlet works and uncontrolled open spillway. The site also has a Project visitor's center. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship and water quality.

FISCAL YEAR 2019 ALLOCATION: $1,524,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a facility security assessment and master plan compliance.

FISCAL YEAR 2020 ALLOCATION: $1,466,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including bridge inspections and evaluations and movement monument surveys.

BUDGETED AMOUNT FOR FY 2021: M: $202,000 **O:** $1,363,000 **T:** $1,565,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,301,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including project office electrical repairs and upgrades.

RC: $148,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $116,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a cultural resources plan.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented a total of $20,800,000 in flood damages since 1973.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $233,000. There was an additional $23,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Deer Creek Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Deer Creek Lake is located in Pickaway County, Ohio, on Deer Creek which is a tributary of the Scioto River. The project site is 21 miles above the mouth of Deer Creek and 105.8 miles above the mouth of the Scioto River. The lake is approximately seven miles south-southwest of the town of Mount Sterling. The project includes operation and maintenance (O&M) of Deer Creek Lake, which is impounded by a rolled earth-fill dam. There is also a concrete gravity channel section that has a maximum height of 93 feet and a total crest length of 3,800 feet. The dam was completed in 1968.

FISCAL YEAR 2019 ALLOCATION: $1,612,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) activities. Funds were also used for specific work activities including an instrumentation survey.

FISCAL YEAR 2020 ALLOCATION: $3,383,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairing and painting of tainter gates, completing phase 1 master plan and replacing service bridge deck.

BUDGETED AMOUNT FOR FY 2021: M: $477,000 **O:** $1,382,000 **T:** $1,859,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,362,000 – Funds will be used for commonly performed O&M work.

RC: $190,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $307,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: N/A

OTHER INFORMATION: The project has prevented over $119,800,000 in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $21,000. There was an additional $20,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $10,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Delaware Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Deer Creek Lake is located in Pickaway County, Ohio, on Deer Creek which is a tributary of the Scioto River. The project site is 21 miles above the mouth of Deer Creek and 105.8 miles above the mouth of the Scioto River. The lake is approximately seven miles south-southwest of the town of Mount Sterling. The project includes operation and maintenance (O&M) of Deer Creek Lake, which is impounded by a rolled earth-fill dam. There is also a concrete gravity channel section that has a maximum height of 93 feet and a total crest length of 3,800 feet. The dam was completed in 1968.

FISCAL YEAR 2019 ALLOCATION: $2,728,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including updating the interim risk reduction measures plan, stockpiling emergency materials, installing closed circuit TV, installing uplift cells in the gallery, repairing and painting dam intake sluice gates and dam intake tainter gate machinery, repairing the Waldo pump stations culverts and replacing or repairing gutters in conjunction with the dam access road.

FISCAL YEAR 2020 ALLOCATION: $1,760,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $1,755,000 **O:** $1,183,000 **T:** $2,938,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,652,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activity including the installment of a seepage blanket on the left spillway abutment).

RC: $160,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $126,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities for boundary monumentation and recertification.

WS: N/A

OTHER INFORMATION: The project has prevented over $214,400,000 in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $126,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $10,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Dillon Lake, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761) as amended by Section 4 of FCA 1939 (P.L. 76-396)

LOCATION AND DESCRIPTION: Dillon Lake is located in Muskingum County, OH on the Licking River, a tributary of the Muskingum River. It is 5.8 miles above the mouth of the Licking River and 83.4 miles above the mouth of the Muskingum River. The project includes operation and maintenance (O&M) of Dillon Lake. The lake is impounded by a rolled earth-fill dam with impervious core and an uncontrolled partially concrete lined spillway. The top length of the dam is 1,400 feet. The dam was completed in July of 1959.

FISCAL YEAR 2019 ALLOCATION: $1,561,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) activities.

FISCAL YEAR 2020 ALLOCATION: $2,182,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including installation of gabion mesh near outflow, machine guarding and a master plan update.

BUDGETED AMOUNT FOR FY 2021: M: $2,069,000 **O:** $1,370,000 **T:** $3,439,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,004,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including fabricate and install emergency bulkhead replacement, low flow bulkhead replacement, and replace dam electrical service cables.

RC: $160,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $275,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including Phase 2 for Master Plan.

WS: N/A

OTHER INFORMATION: The project has prevented $996,548,000 in flood damages through FY 2018.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $103,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $35,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Massillon Local Protection Project, OH

AUTHORIZATION: Section 4 of the Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Massillon Local Protection Project is located in Stark County, OH on the Tuscarawas River. Maintenance of the levee is a joint responsibility of the City of Massillon and the U.S. Army Corps of Engineers. Annual mowing and dam inspections are required.

FISCAL YEAR 2019 ALLOCATION: $250,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) activities.

FISCAL YEAR 2020 ALLOCATION: $114,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M activities.

BUDGETED AMOUNT FOR FY 2021: M: $72,000 **O:** $233,000 **T:** $305,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $305,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including emergency exercise and video inspection of toe drains on the west levee.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project has prevented over $5,711,000 in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Michael J. Kirwan Dam and Reservoir, OH

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500), with local cooperation requirements modified by the Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Michael J. Kirwan Dam is located near Newton Falls, OH on the West Branch of the Mahoning River, about 12.0 miles above the junction of the West Branch and the Mahoning River. The reservoir is located entirely within Portage County. Michael J. Kirwan Dam and Reservoir is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $1,752,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing the electric service to the control tower and updating the water control manual.

FISCAL YEAR 2020 ALLOCATION: $1,503,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacing the electric service to the control tower, resolution of encroachments, real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $310,000 **O:** $1,434,000 **T:** $1,744,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,537,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety inspection activities.

RC: $68,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $139,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Michael J. Kirwan Dam is estimated to have prevented more than $897,000,000 in damages since its completion in 1967.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $231,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mosquito Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Mosquito Dam is on Mosquito Creek, 12.6 miles upstream from its junction with the Mahoning River at Niles, OH. The multi-purpose reservoir is located entirely in Trumbull County.

FISCAL YEAR 2019 ALLOCATION: $2,138,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including sealing the stilling basin training wall joints, shoreline management, pest and invasive species management, special status species management and updating the water control manual.

FISCAL YEAR 2020 ALLOCATION: $1,447,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $289,000 **O:** $1,680,000 **T:** $1,969,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,501,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety inspection activities.

RC: $123,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $337,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan update.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Mosquito Creek Lake is estimated to have prevented more than $497,000,000 in damages since its completion in 1944. The lake serves as a water source for the City of Warren, OH.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $599,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Muskingum River Lakes, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761) as amended by Section 4 of the FCA of 1939 (P.L. 76-396)

LOCATION AND DESCRIPTION: The Muskingum River basin is the largest watershed within the state of Ohio. The river and its tributaries drain 8,051 square miles in all or parts of 24 counties in the southeastern portion of the state. The Muskingum River project includes operation and maintenance (O&M) of Atwood Lake, Beach City Lake, Bolivar Dam, Charles Mill Lake, Clendening Lake, Dover Dam, Leesville Lake, Mohawk Dam, Mohicanville Dam, Piedmont Lake, Pleasant Hill Lake, Senecaville Lake, Tappan Lake, and Wills Creek Lake.

FISCAL YEAR 2019 ALLOCATION: $17,040,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing the Atwood service bridge, repairing the service bridge at Piedmont Lake, augmenting the seepage blanket, and repairing cracks in the concrete wingwalls of the downstream outlet channel at Wills Creek Lake.

FISCAL YEAR 2020 ALLOCATION: $12,334,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacing 2 of 6 dam sluice gates at Beach City and resurfacing, cleaning and painting Wills Creek intake service bridge.

BUDGETED AMOUNT FOR FY 2021: M: $5,362,000 **O:** $7,429,000 **T:** $12,791,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $12,179,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including repair Beach City service gate slot #3 and repairs to the emergency bulkhead guide rails and repairing gate stems, bearing, brackets and stand/stuffing boxes at Atwood.

RC: $218,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $394,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including phase 2 master plan.

WS: N/A

OTHER INFORMATION: Collectively, the Muskingum River Lake projects have prevented over $5,846,800,000 in damages over the course of their operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,153,000. There was an additional $25,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $300,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: North Branch Kokosing River Lake, OH

AUTHORIZATION: Section 203 of the Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: The North Branch Kokosing River Lake project is located north of Mount Vernon and west of Fredericktown, OH. Kokosing Dam was built by the U.S. Army Corps of Engineers for flood control, recreation, and wildlife management. The dam, completed in 1972, has a crest length of 1,400 feet. The Ohio Division of Natural Resources is responsible for fish and wildlife conservation at the lake. The Kokosing Lake Campground, located on the banks of Kokosing Lake, is leased by Muskingum Watershed Conservancy District.

FISCAL YEAR 2019 ALLOCATION: $675,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) activities.

FISCAL YEAR 2020 ALLOCATION: $724,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M activities. Funds are also being used for specific work activities including an environmental compliance (ERGO) inspection and a master plan update.

BUDGETED AMOUNT FOR FY 2021: M: $182,000 **O:** $459,000 **T:** $641,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $521,000 – Funds will be used for commonly performed O&M work.

RC: $15,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $105,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including phase 2 of a master plan update.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $30,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ohio-Mississippi Flood Control, OH

AUTHORIZATION: Section 7 of the Flood Control Act of 1944, P.L. 74-58 (58 Stat. 890; 33 U.S.C. 709)

LOCATION AND DESCRIPTION: This project funds activities associated with the direction of releases from the Tennessee and Cumberland Rivers during periods of flooding on the lower Ohio and Mississippi Rivers, for the primary purpose of protecting the Mississippi River and Tributaries system of levees.

FISCAL YEAR 2019 ALLOCATION: $1,302,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,522,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $1,482,000 **T:** $1,482,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,482,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project returns an estimated average $18 million of flood damage reduction benefits for every $1 million spent. These capabilities were essential in preventing overtopping of the Mississippi River and Tributaries levee system during the record 2011 Greater Mississippi River Basin flood and more recently the 2016 flood.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $119,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Paint Creek Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Paint Creek Lake is located in Ross and Highland Counties, OH on Paint Creek, a tributary of the Scioto River. It is 36.8 miles above the mouth of Paint Creek and 100 miles above the mouth of the Scioto River. The lake is impounded by an earthen- and rock-fill dam with a central impervious core and a gated spillway. Its maximum height is 118 feet with a top length of 700 feet. The dam was completed in 1974.

FISCAL YEAR 2019 ALLOCATION: $1,715,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) activities. Funds were also used for specific work activities including instrumentation survey, automation of the piezometers, and inspecting the Greenfield Levee pipes.

FISCAL YEAR 2020 ALLOCATION: $2,950,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairs to four tainter gate operating machinery piers, installation of moving parts machine guarding, completing a historic properties management plan, and a master plan update.

BUDGETED AMOUNT FOR FY 2021: M: $966,000 **O:** $1,231,000 **T:** $2,197,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,750,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including repair and paint three tainter gates and machineryu78.

RC: $172,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $254,000 – Funds will be used for commonly performed O&M work.

WS: $21,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project has prevented over $188,900,000 in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $38,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $10,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Roseville Local Protection Project, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Roseville Local Protection Project is located in the village of Roseville, about 9.5 miles southwest of Zanesville and 66 miles east of Columbus. The project is on the Moxahala Creek, a tributary of the Muskingum River. The Protection Project consists of 7,291 feet of channel improvements, 5,500 feet of levees, a pump station, and four gate-wells on outfalls that empty into Moxahala Creek.

FISCAL YEAR 2019 ALLOCATION: $64,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) activities.

FISCAL YEAR 2020 ALLOCATION: $53,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M activities.

BUDGETED AMOUNT FOR FY 2021: M: $52,000 **O:** $0 **T:** $52,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $52,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project has prevented over $1.5 million in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $22,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tom Jenkins Dam, OH

AUTHORIZATION: Section 10 of Flood Control Act of 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: The Federal project includes the Tom Jenkins Dam and Burr Oak Reservoir, which is located in Athens County, OH. The dam is 0.3 miles above the mouth of East Branch of Sunday Creek and 57.2 miles above the mouth of the Hocking River. The dam, completed in 1950, is rolled earthen-fill with a maximum height of 84 feet and a top length of 944 feet.

FISCAL YEAR 2019 ALLOCATION: $866,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,440,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including installation of facility physical security surveillance system and a master plan update.

BUDGETED AMOUNT FOR FY 2021: M: $671,000 **O:** $645,000 **T:** $1,316,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,100,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacement of sluice gate stem ($300,000).

RC: $40,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $155,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including completion of phase 2 master plan ($75,000).

WS: $21,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project has prevented over $34,200,000 in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $6,000. There was an additional $10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $10,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: West Fork of Mill Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1946 (P.L. 79-526)

LOCATION AND DESCRIPTION: West Fork Lake is 14 miles north of Cincinnati in Hamilton County, Ohio. The dam is an earthen-fill dam, 100-feet high and 1,100-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality. In addition, it provides a reduction of pumping requirements at the barrier dam of the local flood protection works at Cincinnati. Recreational development is under lease agreement to the Hamilton County Park District Board.

FISCAL YEAR 2019 ALLOCATION: $2,572,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including master plan compliance, a security assessment, repairing or replacing rock slide mesh, and evaluating the reduction in spillway flow capacity.

FISCAL YEAR 2020 ALLOCATION: $1,190,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are being used for specific work activities including bridge inspections and evaluations, movement monument surveys, removing rock from spillway bucket, and replacement of electronic security system.

BUDGETED AMOUNT FOR FY 2021: M: $181,000 **O:** 802,000 **T:** $983,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $889,000 – Funds will be used for commonly performed O&M work.

RC: $45,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $49,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: This project is estimated to have prevented a total of $128 million in flood damages since 1952.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $540,000. There was an additional $42,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: William H. Harsha Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: William H. Harsha Lake is located on the East Fork of the Little Miami River just downstream of Williamsburg in Clermont County, Ohio. The dam is earthen-fill with outlet works, a separate saddle dam, and spillway. The dam is 200-feet high and 1,450-feet long. The Saddle Dam is 100-feet high and 2,600-feet long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

FISCAL YEAR 2019 ALLOCATION: $2,657,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairing the stilling basin, replacing the waste water treatment plant, and additional security measures at the project.

FISCAL YEAR 2020 ALLOCATION: $2,569,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including installing a sewage line to the municipal sewer to replace failing wastewater treatment plant and movement monument surveys.

BUDGETED AMOUNT FOR FY 2021: M: $433,000 **O:** $1,319,000 **T:** $1,752,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,481,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including control tower elevator electrical component upgrades.

RC: $147,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $116,000 – Funds will be used for commonly performed O&M work.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project is estimated to have prevented a total of $131.5 million in flood damages since 1977.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $146,000. There was an additional $16,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Arcadia Lake, OK

AUTHORIZATION: Flood Control Act of 1970

LOCATION AND DESCRIPTION: Arcadia Lake is located in the metropolitan area of Oklahoma City and Edmond in Oklahoma County on the Deep Fork River at river mile 218.3. This is a multi-purpose project with flood control, water supply, and recreation facilities. The project covers 1,820 acres and has a 5,250 foot long rolled earth filled embankment with an uncontrolled saddle spillway.

FISCAL YEAR 2019 ALLOCATION: $617,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $502,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $120,000 **O:** $438,000 **T:** $558,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $406,000 – Funds will be used for commonly performed O&M work.

RC: $46,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $91,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1986, Arcadia Lake is estimated to have prevented over $44 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $43,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Birch Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Birch Lake is 1.5 miles south of the town of Barnsdall in Osage County, Oklahoma. It is located at river mile 0.8 on Birch Creek, a tributary of Bird Creek. This is a multi-purpose project authorized for flood control, water supply, water quality control, recreation, and fish and wildlife. The project consists of a 3,193 foot long rolled earth fill embankment with an uncontrolled spillway, and a conduit controlled by two slide gates. At conservation pool depth, the lake covers 1,137 acres.

FISCAL YEAR 2019 ALLOCATION: $770,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,100,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $129,000 **O:** $726,000 **T:** $855,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $538,000 – Funds will be used for commonly performed O&M work.

RC: $249,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $68,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Since construction in 1977, Birch Lake is estimated to have prevented over $171 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $271,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Broken Bow Lake, OK

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Broken Bow Lake is 9 miles northeast of the town of Broken Bow in McCurtain County, Oklahoma. The project is located on the Mountain Fork River, a tributary of the Little River, at river mile 20.3. This is a multi-purpose project authorized for flood control, hydropower, water supply, recreation, and fish and wildlife. The project consists of a 2,750 foot long rolled earth fill embankment with a concrete ogee weir controlled spillway, eight tainter gates, and two 50 megawatt generators. At conservation pool depth the lake covers 14,200 acres.

FISCAL YEAR 2019 ALLOCATION: $2,053,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for routine operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,858,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including inspection and certification activities for load handling equipment.

BUDGETED AMOUNT FOR FY 2021: M: $612,000 **O:** $2,062,000 **T:** $2,674,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $497,600, of which $390,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $194,400, of which $129,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $1,854,900, of which $43,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $112,100, of which $4,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1970, Broken Bow Lake is estimated to have prevented $102 million in cumulative flood damages. As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: FRM – 69%, REC – 23%, HYD – 7%, and EN – 1%. The cold water fishery below Broken Bow Lake is one of the premier brown and rainbow trout streams in the south-central United States.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,745,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Canton Lake, OK

AUTHORIZATION: Flood Control Act of 1938, Flood Control Act of 1946, Flood Control Act of 1948, and the Water Resources Development Act of 1990

LOCATION AND DESCRIPTION: Canton Lake is located on the North Canadian River at river mile 394.3, about 2 miles north of the town of Canton in Blaine County, Oklahoma. This is a multi-purpose project with flood control, water supply, and irrigation outputs. The project consists of a 15,140 foot long rolled earth fill embankment with a 640 foot gated concrete spillway that rises to a maximum height of 68 feet. Spillway discharges are controlled by 16 tainter gates. At conservation pool depth the lake covers 7,910 acres.

FISCAL YEAR 2019 ALLOCATION: $1,928,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,742,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $268,000 **O:** $1,879,000 **T:** $2,147,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,059,000 – Funds will be used for commonly performed O&M work.

RC: $956,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $117,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1948, Canton Lake is estimated to have prevented $140 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $100,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Copan Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Copan Lake is nine miles north of the City of Bartlesville in Washington County, Oklahoma. It is located at river mile 7.4 on the Little Caney River, a tributary of the Caney River. This is a multi-purpose project authorized for flood control, water supply, water quality control, recreation, and fish and wildlife. The project consists of a 7,730 foot long rolled earth fill embankment with a gate controlled, concrete, gravity ogee weir with four tainter gates. At conservation pool depth the lake covers 4,449 acres.

FISCAL YEAR 2019 ALLOCATION: $1,209,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to purchase a new winch truck.

FISCAL YEAR 2020 ALLOCATION: $1,160,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $504,000 **O:** $1,089,000 **T:** $1,593,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,156,000 – Funds will be used for commonly performed O&M work.

RC: $317,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $105,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1983, Copan Lake is estimated to have prevented $1.2 billion in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $57,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Eufaula Lake, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: Eufaula Lake is 12 miles east of the town of Eufaula in McIntosh County, Oklahoma and located on the Canadian River at river mile 27. This is a multi-purpose project authorized for flood control, hydropower, navigation, and water supply. The project consists of a rolled earth fill embankment that is 3,300 feet long, and a concrete gravity ogee weir controlled spillway with 11 tainter gates. The project contains three 30-megawatt hydropower generator units. At conservation pool depth, the lake covers 105,500 acres.

FISCAL YEAR 2019 ALLOCATION: $6,760,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $7,151,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including inspection and certification activities for load handling equipment.

BUDGETED AMOUNT FOR FY 2021: M: $794,000 **O:** $5,470,000 **T:** $6,264,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $158,400, of which $158,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $1,190,000, of which $578,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,872,000 - Funds will be used for commonly performed O&M work.

H: $2,066,800, of which $124,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $926,800, of which $5,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: $50,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities shared between business lines as follows: FRM – 67%, NAV – 18%, HYD – 14%, and EN – 1%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $12,040,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fort Gibson Lake, OK

AUTHORIZATION: Flood Control Act of 1941, River and Harbor Act of 1946, and the Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: Fort Gibson Lake is 12 miles northeast of the town of Muskogee in Mayes, Wagoner, and Cherokee Counties of Oklahoma. It is located on the Grand (Neosho) River at river mile 7.7. This is a multi-purpose project authorized for flood control and hydropower. The project consists of a 2,990 foot long rolled earth fill embankment with a concrete, gravity ogee weir controlled spillway and the powerhouse intake structure. The spillway is equipped with thirty tainter gates, and the powerhouse has four 11.25 megawatt generator units. At conservation pool depth the lake covers 19,900 acres.

FISCAL YEAR 2019 ALLOCATION: $5,252,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $5,558,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including inspection and certification activities for load handling equipment, update of the project shoreline management plan and pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $895,000 **O:** $4,178,000 **T:** $5,073,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $680,600, of which $348,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,631,000 – Funds will be used for commonly performed O&M work.

H: $2,359,400, of which $322,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $402,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: FRM – 52% and HYD – 48%. Since construction in 1949, Fort Gibson Lake is estimated to have prevented $582 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $312,000. There was an additional $47,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fort Supply Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Fort Supply Lake is 12 miles northwest of the town of Woodward in Woodward County, Oklahoma. It is located at river mile 5.5 on Wolf Creek, a tributary of the North Canadian River. This is a multi-purpose project authorized for flood control and water supply. The project consists of an 11,865 foot long rolled earth fill embankment with an uncontrolled, concrete, chute-type spillway. Spillway discharges are controlled by three vertical lift gates. At conservation pool depth the lake covers 1,820 acres.

FISCAL YEAR 2019 ALLOCATION: $858,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,247,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including preparation of plans and specifications to repair the spillway bridge.

BUDGETED AMOUNT FOR FY 2021: M: $272,000 **O:** $884,000 **T:** $1,156,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $623,000 – Funds will be used for commonly performed O&M work.

RC: $457,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $76,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Since construction in 1942, Fort Supply Lake is estimated to have prevented $54 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $29,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Great Salt Plains Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Great Salt Plains Lake is 12 miles east of the town of Cherokee in Alfalfa County, Oklahoma, and located on the Salt Fork of the Arkansas River at river mile 103.3. This is a multi-purpose project authorized for flood control, conservation, recreation, and fish and wildlife. The project consists of a rolled, earth fill embankment and concrete spillway with three ungated, concrete weirs. The embankment has a total crest length of 6,010 feet and rises to a maximum height of 68 feet above the streambed. At the top of the flood control pool the lake covers 25,660 acres.

FISCAL YEAR 2019 ALLOCATION: $295,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $340,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $118,000 **O:** $325,000 **T:** $443,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $355,000 – Funds will be used for commonly performed O&M work.

RC: $32,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $56,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Since construction in 1941, Great Salt Plains Lake is estimated to have prevented $328 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $24,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Heyburn Lake, OK

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Heyburn Lake is 11 miles southwest of the City of Sapulpa in Creek County, Oklahoma. It is located at river mile 48.6 on Polecat Creek, a tributary of the Arkansas River. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of a 2,920 foot long rolled earth fill embankment with an uncontrolled spillway. At conservation pool depth the lake covers 877 acres.

FISCAL YEAR 2019 ALLOCATION: $2,602,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairing the dam embankment riprap.

FISCAL YEAR 2020 ALLOCATION: $816,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $283,000 **O:** $688,000 **T:** $971,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $660,000 – Funds will be used for commonly performed O&M work.

RC: $207,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $89,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1950, Heyburn Lake is estimated to have prevented $86,000,000 in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $200,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hugo Lake, OK

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Hugo Lake is seven miles east of the City of Hugo in Choctaw County, Oklahoma, and located on the Kiamichi River at river mile 17.6. This is a multi-purpose project authorized for flood control, water supply, water quality, recreation, and fish and wildlife. The project consists of a 10,200 foot long rolled earth fill embankment with a gate controlled, concrete gravity ogee weir spillway with six gates. At conservation pool depth the lake covers 13,144 acres.

FISCAL YEAR 2019 ALLOCATION: $2,499,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacement of the project office roof.

FISCAL YEAR 2020 ALLOCATION: $1,920,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $82,000 **O:** $2,098,000 **T:** $2,180,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $943,000 – Funds will be used for commonly performed O&M work.

RC: $720,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $502,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1974, Hugo Lake is estimated to have prevented $321 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $653,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hulah Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Hulah Lake is 15 miles northwest of the City of Bartlesville in Osage County, Oklahoma. It is located at river mile 96.2 on the Caney River, a tributary of the Verdigris River. This is a multi-purpose project authorized for flood control, water supply, low flow regulation, and conservation. The project consists of a 10,200 foot long rolled earth fill embankment with a gate controlled, concrete gravity ogee weir spillway with ten tainter gates. At conservation pool depth the lake covers 3,120 acres.

FISCAL YEAR 2019 ALLOCATION: $751,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,000,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $285,000 **O:** $615,000 **T:** $900,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $660,000 – Funds will be used for commonly performed O&M work.

RC: $50,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $170,000 – Funds will be used for commonly performed O&M work.

WS: $20,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1951, Hulah Lake is estimated to have prevented $1,8 billion in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $72,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Kaw Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Kaw Lake is eight miles east of the town of Ponca City in Kay County, Oklahoma, and located on the Arkansas River at river mile 653.7. This is a multi-purpose project authorized for flood control, water supply, water quality, hydropower, recreation, and fish and wildlife. The project consists of a 9,466 foot long rolled earth fill embankment with a gate controlled, concrete gravity ogee weir spillway with eight tainter gates. A 37 kilowatt hydropower generator is located at the project. At conservation pool depth the lake covers 16,750 acres.

FISCAL YEAR 2019 ALLOCATION: $3,079,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including designing repairs for a cracked spillway pier.

FISCAL YEAR 2020 ALLOCATION: $2,379,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including operation in support of water supply agreements.

BUDGETED AMOUNT FOR FY 2021: M: $449,000 **O:** $1,926,000 **T:** $2,375,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,123,000 – Funds will be used for commonly performed O&M work.

RC: $925,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacement of waterlines at Coon Creek recreation area.

H: N/A

EN: $312,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1977, Kaw Lake is estimated to have prevented $1.1 billion in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $225,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Keystone Lake, OK

AUTHORIZATION: River and Harbor Act of 1950

LOCATION AND DESCRIPTION: Keystone Lake is 15 miles west of Tulsa in Tulsa County, Oklahoma, and located on the Arkansas River at river mile 538.8. This is a multi-purpose project authorized for flood control, water supply, hydroelectric power, navigation, and fish and wildlife. The project consists of a 4,600 foot long rolled earth fill embankment with a concrete gated ogee weir controlled spillway with 18 tainter gates. The project contains two 35 megawatt hydropower generator units. At conservation pool depth the lake covers 23,610 acres.

FISCAL YEAR 2019 ALLOCATION: $4,630,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $4,993,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including inspection and certification activities for load handling equipment.

BUDGETED AMOUNT FOR FY 2021: M: $772,000 **O:** $4,144,000 **T:** $4,916,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $249,400, of which $249,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $1,025,600, of which $584,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,172,000 – Funds will be used for commonly performed O&M work.

H: $2,018,600, of which $102,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $420,400, of which $1,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: $30,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: FRM – 62%, NAV – 26%, HYD – 11%, and EN – 1%. Since construction in 1964, Keystone Lake is estimated to have prevented $1.7 billion in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $199,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: McClellan-Kerr Arkansas River Navigation System, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The McClellan-Kerr Arkansas River Navigation System (MKARNS) provides a route from the Mississippi River through Arkansas and Oklahoma, to the head of navigation at the Port of Catoosa, near Tulsa, Oklahoma. The navigation channel has a minimum depth of 9 feet and minimum widths of 250 feet on the Arkansas River and 150 feet on the Verdigris River. Total length of the Tulsa District portion of the system is 137 navigation miles. The five locks on the project have chambers that are 110 by 600 feet with 20 to 21 foot normal lifts.

FISCAL YEAR 2019 ALLOCATION: $29,307,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging and tainter gate repairs at Webbers Falls and W.D. Mayo L&D.

FISCAL YEAR 2020 ALLOCATION: $25,545,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replace lock and dam control wiring, dredging, conduct load handling equipment and below the hook certifications, design work to rehabilitate the tainter gates at Newt Graham Lock and Dam 18 and rehabilitate the Robert S. Kerr tainter gates.

BUDGETED AMOUNT FOR FY 2021: M: $12,123,000 **O:** $13,213,000 **T:** $25,336,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $16,154,100, of which $5,581,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: $1,965,500, of which $720,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $6,743,400, of which $1,813,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $473,000, of which $72,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV – 62%, HYD – 32%, REC – 5%; and EN – 1% for Robert S. Kerr and NAV – 72%, HYD – 16%, REC – 11%, and EN – 1% for Webbers Falls. Beginning with the FY 2017 budget, the Robert S. Kerr Lock and Dam project and the Webbers Falls Lock and Dam project have been combined with the MKARNS, OK project. Therefore, all of the business line amounts reflect the total for all three projects combined. Seven hydropower plants are on the project with a total hydropower capacity of 170,000 kilowatts.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,304,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Oologah Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Oologah Lake is two miles southeast of the City of Oologah in Rogers County, Oklahoma, and located on the Verdigris River at river mile 90.2. This is a multi-purpose project authorized for flood control, water supply, navigation, recreation, and fish and wildlife. The project consists of a 4,000 foot long rolled earth fill embankment with a gate controlled, modified concrete gravity ogee weir spillway with seven radial gates. At conservation pool depth the lake covers 31,043 acres.

FISCAL YEAR 2019 ALLOCATION: $2,924,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,973,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an update of the master plan and shoreline protection requirements at Mitigation Site 34NW103.

BUDGETED AMOUNT FOR FY 2021: M: $673,000 **O:** $2,168,000 **T:** $2,841,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,659,000 – Funds will be used for commonly performed O&M work.

RC: $907,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $260,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1963, Oologah Lake is estimated to have prevented $1.3 billion in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $85,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Optima Lake, OK

AUTHORIZATION: Flood Control Act of 1936, as amended by the Flood Control Act of 1950

LOCATION AND DESCRIPTION: Optima Lake is 4.5 miles northeast of the City of Hardesty in Texas County, Oklahoma and located on the North Canadian River at river mile 623.2. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of a 16,900 foot long rolled earth fill embankment with an uncontrolled emergency spillway. At conservation pool depth the lake covers 5,340 acres.

FISCAL YEAR 2019 ALLOCATION: $62,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $94,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $4,000 **O:** $56,000 **T:** $60,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $60,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Funds are sufficient to ensure the safety, security, and integrity of the project. In order to reduce annual Civil Works O&M costs, 12,400 acres of the 13,250 acres of Federal lands at Optima Lake are being managed by the U.S. Fish and Wildlife Service and the Oklahoma Department of Wildlife Conservation under licensing and cooperative agreements.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $21,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pensacola Reservoir, Lake of the Cherokees, OK

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Pensacola Reservoir, Lake of the Cherokees, is 13 miles southeast of the town of Vinita in Mayes and Delaware Counties, Oklahoma, and located on the Grand (Neosho) River at river mile 77. This is a multi-purpose project authorized for hydropower and flood control. The project consists of a concrete, multiple-arch dam with gated spillways. The total length of the dam and spillways is 6,565 feet. The main spillway and the two east spillways are equipped with 21 tainter gates. A total of six 20-megawatt hydropower generators owned and maintained by the Grand River Dam Authority are located within the structure. At power pool depth the lake covers 46,500 acres.

FISCAL YEAR 2019 ALLOCATION: $162,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $158,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $3,000 **O:** $150,000 **T:** $153,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $153,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project was constructed by the Grand River Dam Authority, an Oklahoma State agency, in 1940. Operation of the flood control storage in the reservoir is the responsibility of the Corps in accordance with the provisions of Section 7 of the Flood Control Act of 1944.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $26,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pine Creek Lake, OK

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Pine Creek Lake is five miles northwest of the town of Wright City in McCurtain County, Oklahoma, and located on the Little River at river mile 145.3. This is a multi-purpose project authorized for flood control, water supply, water quality, fish and wildlife, and recreation. The project consists of a 7,712 foot long rolled earth fill embankment with an uncontrolled, gravity ogee weir spillway. The outlet works includes an intake structure, a 13-foot diameter conduit, and 48-inch low flow pipe, and a 36-inch water supply static head line. At conservation pool depth the lake covers 3,750 acres.

FISCAL YEAR 2019 ALLOCATION: $1,414,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,440,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $155,000 **O:** $1,342,000 **T:** $1,497,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $736,000 – Funds will be used for commonly performed O&M work.

RC: $429,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $297,000 – Funds will be used for commonly performed O&M work.

WS: $35,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1969, Pine Creek Lake is estimated to have prevented $166 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $445,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Sardis Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Sardis Lake is 2.5 miles north of the City of Clayton in Pushmataha County, Oklahoma, and located at river mile 2.8 on Jackfork Creek, a tributary of the Kiamichi River. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of a 14,138 foot long rolled earth fill embankment with an uncontrolled spillway and a gate tower with two wheel gates. At conservation pool depth the lake covers 13,610 acres.

FISCAL YEAR 2019 ALLOCATION: $1,272,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,513,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairs to the emergency gate and wet well actuators and operation in support of water supply agreements.

BUDGETED AMOUNT FOR FY 2021: M: $209,000 **O:** $1,250,000 **T:** $1,459,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $780,000 – Funds will be used for commonly performed O&M work.

RC: $471,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $178,000 – Funds will be used for commonly performed O&M work.

WS: $30,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1983, Sardis Lake is estimated to have prevented $140 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $53,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Skiatook Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Skiatook Lake is five miles west of the town of Skiatook in Osage County, Oklahoma, and located at river mile 14.3 on Hominy Creek, a tributary of Bird Creek. This is a multi-purpose project authorized for flood control, water supply, water quality control, recreation, and fish and wildlife. The project consists of a 3,590 foot long rolled earth fill embankment with an uncontrolled spillway and a gate tower with two gates. At conservation pool depth the lake covers 10,190 acres.

FISCAL YEAR 2019 ALLOCATION: $1,577,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,467,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $1,051,000 **O:** $1,496,000 **T:** $2,547,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,622,000 – Funds will be used for commonly performed O&M work.

RC: $747,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $138,000 – Funds will be used for commonly performed O&M work.

WS: $40,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1984, Skiatook Lake is estimated to have prevented $651 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $203,000. There was an additional $39,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tenkiller Ferry Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Tenkiller Ferry Lake is 22 miles southeast of the City of Muskogee in Cherokee and Sequoyah Counties, Oklahoma, and located on the Illinois River at river mile 12.8. This is a multi-purpose project authorized for flood control and hydropower. The project consists of a 3,000 foot long rolled earth fill embankment with a concrete, gravity controlled spillway with ten tainter gates. The project contains two 19.5 megawatt hydropower generator units. At conservation pool depth the lake covers 12,900 acres.

FISCAL YEAR 2019 ALLOCATION: $4,275,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $5,471,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including inspection and certification activities for load handling equipment and design the spillway bridge replacement.

BUDGETED AMOUNT FOR FY 2021: M: $756,000 **O:** $4,026,000 **T:** $4,782,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $847,500, of which $460,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,428,000 – Funds will be used for commonly performed O&M work.

H: $2,061,500, of which $243,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $395,000 – Funds will be used for commonly performed O&M work.

WS: $50,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: FRM – 65% and HYD -35%. Since construction in 1952, Tenkiller Ferry Lake is estimated to have prevented $342 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $91,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Waurika Lake, OK

AUTHORIZATION: P.L. 88-253

LOCATION AND DESCRIPTION: Waurika Lake is six miles northwest of the town of Waurika in Jefferson County, Oklahoma, and located at river mile 27.0 on Beaver Creek, a tributary of the Red River. This is a multi-purpose project authorized for flood control, irrigation, water supply, water quality, recreation, and fish and wildlife. The project consists of a 16,600 foot long rolled earth fill embankment with an uncontrolled spillway. The outlet works include a concrete conduit with two service gates and two emergency gates, a water supply pipe, and a low flow pipe. At conservation pool depth the lake covers 10,100 acres.

FISCAL YEAR 2019 ALLOCATION: $1,794,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including preparation of a bridge load rating, replacement of a leaking water line in Kiowa Park and preparation of a crane placement plan.

FISCAL YEAR 2020 ALLOCATION: $1,588,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $145,000 **O:** $1,490,000 **T:** $1,635,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,042,000 – Funds will be used for commonly performed O&M work.

RC: $463,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $105,000 – Funds will be used for commonly performed O&M work.

WS: $25,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1977, Waurika Lake is estimated to have prevented $315 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $103,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Wister Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Wister Lake is located on the Poteau River at river mile 60.9, two miles south of the town of Wister in LeFlore County, Oklahoma. This is a multi-purpose project authorized for flood control, water supply, low flow augmentation, water conservation, and sedimentation control. The project consists of a 5,700 foot long rolled earth fill embankment with an uncontrolled, concrete, chute-type spillway with a modified broad-crested weir. Flows are regulated by six vertical lift gates located in a concrete gate tower. At conservation pool depth the lake covers 7,386 acres.

FISCAL YEAR 2019 ALLOCATION: $781,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $891,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $177,000 **O:** $828,000 **T:** $1,005,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $715,000 – Funds will be used for commonly performed O&M work.

RC: $50,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $225,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1949, Wister Lake is estimated to have prevented $953 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $91,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Applegate Lake, OR

AUTHORIZATION: The Flood Control Act of 1962 (PL 87-874)

LOCATION AND DESCRIPTION: The project is 23.5 miles south of Medford in southwestern Oregon near river mile 46.5 on the Applegate River. Applegate Lake is a flood reduction project with rock-fill embankment dam, 1300-feet long and 242-feet high, with a gate-controlled, concrete spillway, a regulating outlet conduit, an intake tower with multi-level intakes, and a reservoir. In addition to flood control, the reservoir is authorized for irrigation, fish and wildlife enhancement, water quality control, and recreation.

FISCAL YEAR 2019 ALLOCATION: $1,231,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,253,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $217,000 **O:** $1,174,000 **T:** $1,391,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,318,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including seismic deformation analysis and remote operations communication systems replacement.

RC: N/A

H: N/A

EN: $73,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including cultural resource management inventory.

WS: N/A

OTHER INFORMATION: The project provides 75 thousand acre-feet of usable storage for flood control and water conservation utilization. The project controls runoff from a drainage area of 223 square-miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $15,000. There was an additional $5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Blue River Lake, OR

AUTHORIZATION: The Flood Control Act of 1950 (PL 81-51)

LOCATION AND DESCRIPTION: Blue River Lake is 38 miles east of Eugene on the Blue River in Oregon. It consists of a rock-fill embankment dam, 1420-feet long, 319-feet high, a spillway 70-feet long, outlet works, and an earthen- and gravel-fill dike that is 1535-feet long. Blue Lake Dam is about two miles from the mouth of the Blue River on the McKenzie River.

FISCAL YEAR 2019 ALLOCATION: $572,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,992,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including non-routine generic data acquisition and control systems, regulating outlet fence and to paint spillway gates.

BUDGETED AMOUNT FOR FY 2021: M: $313,000 **O:** $1,033,000 **T:** $1,346,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,264,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including spillway slope repair.

RC: $22,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $50,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: This project controls runoff from a drainage area of 88 square-miles. The reservoir provides 85 thousand acre-feet of usable flood control storage and is operated in conjunction with the coordinated reservoir system to protect the Willamette River Valley and provide increased low water flows for navigation and other purposes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $366,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Bonneville Lock and Dam, OR and WA 2/

AUTHORIZATION: Works Progress Administration of 1933, 16 US Code Section 832 (Bonneville Project Act), River and Harbors Act of 1935 (PL 74-409), as amended, Flood Control Act of 1948 (PL 81-516), and Water Resources Development Act of 1974 (PL 93-251)

LOCATION AND DESCRIPTION: Bonneville Lock and Dam is 145 river miles from the mouth of the Columbia River, 42-miles east of Portland, near Cascade Locks, Oregon. It is authorized for navigation, flood control, hydropower, fish and wildlife, and recreation. It has two powerhouses with 20 hydropower generators with a combined capacity of 1077 megawatts, a fish hatchery, a regional visitor center, and fish ladders.

FISCAL YEAR 2019 ALLOCATION: $1,313,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including spillway crane replacement design documentation report.

FISCAL YEAR 2020 ALLOCATION: $2,040,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $35,000 **O:** $1,854,000 **T:** $1,889,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

FRM: N/A

RC: $1,655,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $234,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: This project provides a spillway dam with overflow crest at 24 feet above mean sea level. It has two powerhouses consisting of 18 units and two fish attraction units for a total power generation capacity of 1,145.7 megawatts. Fish ladders serve the main channel, Bradford Slough Channel, and Powerhouse II channel. The project also provides for navigation with a lock chamber, 86-feet wide with a 19-foot depth of water over the sill.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $502,000. There was an additional $123,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

2/ The amounts and descriptions on this justification sheet reflect only the activities for this project funded from the Operation and Maintenance account. Corresponding project activities funded from the Harbor Maintenance Trust Fund are listed on a separate justification sheet.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cottage Grove Lake, OR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cottage Grove Lake is 25 miles southeast of Eugene, OR on the Coast Fork of the Willamette River at river-mile 29. The project is authorized for flood reduction, recreation, and environmental stewardship. It consists of an earthen-fill dam, 1750-feet long, with a 264-foot long, concrete, gravity spillway, three gate-controlled outlet works, and recreation sites.

FISCAL YEAR 2019 ALLOCATION: $1,560,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,631,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including environmental impact statement for NEPA compliance and generic data acquisition control systems.

BUDGETED AMOUNT FOR FY 2021: M: $1,082,000 **O:** $1,197,000 **T:** $2,279,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,665,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including wooden tower removal and repair and upgrade regulating outlet.

RC: $379,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $225,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including cultural resource management.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The reservoir provides 30 thousand acre-feet of usable flood control storage and controls the runoff of a drainage area of 104 square miles. The project is operated as a part of the coordinated reservoir system that protects the Willamette River Valley and provides increased low water flow for navigation and for other purposes. Recreational development consists of day use and overnight facilities at five sites operated by the Corps of Engineers.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $106,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cougar Lake, OR

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Cougar Lake and Dam are on the South Fork McKenzie River, 42 miles east of Eugene, Oregon. It is a multi-purpose project with a large dam, spillway, and a powerhouse with two 12.5 megawatt hydropower generators.

FISCAL YEAR 2019 ALLOCATION: $2,525,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,946,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $174,000 **O:** $2,262,000 **T:** $2,436,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $26,500, of which $26,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $2,140,800 of which $2,016,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $26,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $63,000 – Funds will be used for commonly performed O&M work.

WS: $179,700, of which $165,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities shared between business lines as follows: NAV – 1%, FRM – 91%, and WS – 8%. Reservoir is 6 miles long with storage capacity at full pool of 219,000 acre-feet and controls runoff of tributary streams. Power plant consists of two 12,500-kilowatt units.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $21,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Detroit Lake, OR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Detroit Lake and Dam are on North Santiam River 45 miles southeast of Salem, Oregon. It is a multi-purpose project with hydropower. It consists of two dams, spillways, and recreation sites. The main dam has two 50-megawatt hydropower generators, and the downstream re-regulating dam, Big Cliff, has one 18-megawatt generator.

FISCAL YEAR 2019 ALLOCATION: $5,983,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repair of structural deformities on spillway gate 5 and mechanical and electrical reliability repairs for spillway gates 4 and 3.

FISCAL YEAR 2020 ALLOCATION: $1,043,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $70,000 **O:** $1,654,000 **T:** $1,724,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $11,300, of which $11,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $1,448,600, of which $935,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $30,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $33,000 – Funds will be used for commonly performed O&M work.

WS: $201,100, of which $183,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV – 1%, FRM – 83%, and WS – 16%. The main and re-regulating dam powerhouses combined have three units with a total capacity of 118-megawatts. The reservoir has a storage capacity of 455 thousand acre-feet and controls runoff of a tributary drainage area of 438-square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $483,000. There was an additional $19,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Dorena Lake, OR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Dorena Lake is 20 miles southeast of Eugene, OR on the Row River at river-mile seven. It consists of an earthen-fill dam, 3352-feet long, 131-feet high, a 200-foot long spillway, outlet works with five conduits, a reservoir, and recreation sites.

FISCAL YEAR 2019 ALLOCATION: $1,321,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,624,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including environmental impact statement for NEPA compliance and generic data acquisition control systems.

BUDGETED AMOUNT FOR FY 2021: M: $114,000 **O:** $1,135,000 **T:** $1,249,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $802,000 – Funds will be used for commonly performed O&M work.

RC: $304,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $133,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The reservoir provides 70.5 thousand acre-feet of usable flood control storage and controls runoff from a basin of 265-square miles. The project is operated as a part of the coordinated reservoir system to protect the Willamette River Valley and provides increased low water flows for navigational and other purposes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $70,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Elk Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874), as amended

LOCATION AND DESCRIPTION: Elk Creek Lake is 26.5 miles north of the City of Medford, OR and located in Jackson County at river-mile 1.7 on Elk Creek, a tributary of Rogue River. Elk Creek Dam was partially completed prior to a court injunction stopping construction.

FISCAL YEAR 2019 ALLOCATION: $235,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $302,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including Elk Creek boundary fence.

BUDGETED AMOUNT FOR FY 2021: M: $223,000 **O:** $132,000 **T:** $355,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $21,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $334,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: N/A

OTHER INFORMATION: The dam was partially demolished ("notched") in 2008 and restored the creek to its original channel to allow for fish passage.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $5,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fall Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: The project is 19 miles southeast of Eugene, Oregon, on Fall Creek. The project is authorized for flood reduction and recreation. It consists of a 5,100-foot long and 180-ft high dam, a gate-controlled spillway, a stilling basin, a reservoir, and recreation sites.

FISCAL YEAR 2019 ALLOCATION: $1,986,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to paint the spillway gates.

FISCAL YEAR 2020 ALLOCATION: $3,139,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to continue to paint the spillway gates.

BUDGETED AMOUNT FOR FY 2021: M: $241,000 **O:** $1,348,000 **T:** $1,589,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,345,000 – Funds will be used for commonly performed O&M work.

RC: $45,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $189,000 – Funds will be used for commonly performed O&M work.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The reservoir provides 115 thousand acre-feet of usable flood control storage and is operated as a part of the coordinated reservoir system to protect the Willamette River Valley and provide increased low water flows for navigation and other purposes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $286,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fern Ridge Lake, OR

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: The project is ten miles west of Eugene, OR on the Long Tom River at river-mile 24. It is authorized for flood reduction, environmental stewardship, and recreation. It consists of a 6,330-foot long earthen-fill dam, two auxiliary dikes, a spillway with six automatic radial gates, outlet works in the spillway structure, a reservoir, and recreation sites. The Federal project also includes the Long Tom River Channel downstream of dam.

FISCAL YEAR 2019 ALLOCATION: $1,963,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,057,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a shoreline management plan review and update.

BUDGETED AMOUNT FOR FY 2021: M: $341,000 **O:** $1,817,000 **T:** $2,158,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,408,000 – Funds will be used for commonly performed O&M work.

RC: $121,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $617,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including cultural resource determination of eligibility and Zumwalt area and Bangs Cove sites monitoring and protection.

WS: $12,000 **–** Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The reservoir provides 110 thousand acre-feet of usable flood control storage and controls runoff of tributary drainage area of 275 square-miles. The reservoir protects the Long Tom River Valley and is operated as a part of the coordinated reservoir system to protect the Willamette River.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $142,000. There was an additional $17,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Green Peter and Foster Lake, OR

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Green Peter Dam is 35 miles northeast of Eugene, Oregon, on the middle fork of the Santiam River. Foster Lake is seven miles downstream from Green Peter Lake. The project is multi-purpose with hydropower. It consists of the main dam, Green Peter, a re-regulating dam, Foster, spillways, and recreation sites. Green Peter hydropower facilities consist of two 40-megawatt generators, and Foster has two 10-megawatt units.

FISCAL YEAR 2019 ALLOCATION: $2,213,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,605,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to prepare the plans and specifications to replace water stops in the main dam.

BUDGETED AMOUNT FOR FY 2021: M: $322,000 **O:** $2,184,000 **T:** $2,506,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $16,900, of which $16,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $1,842,600, of which $1,639,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $185,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $212,000 – Funds will be used for commonly performed O&M work.

WS: $249,500, of which $219,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV – 1%, FRM – 87%, and WS – 12%. Together, the main dam and re-regulating dam, both with power-generating facilities, have an installed capacity of 100,000 kilowatts. Reservoirs provide storage capacity at full pool of 491 thousand acre-feet and control runoff of tributary drainage area of 277 square-miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $35,000. There was an additional $1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hills Creek Lake, OR

AUTHORIZATION: The Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Hills Creek Dam is 45-miles southeast of Eugene, OR on the Middle Fork of the Willamette River. The project is multi-purpose with hydropower, and consists of a dam, a spillway, recreation facilities, and a powerhouse with two 15-megawatt generators.

FISCAL YEAR 2019 ALLOCATION: $1,428,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,427,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $82,000 **O:** $1,343,000 **T:** $1,425,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $24,200, of which $24,200 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $1,063,000, of which $1,063,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $27,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $107,000 – Funds will be used for commonly performed O&M work.

WS: $203,800, of which $185,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV – 2%, FRM – 83%, and WS – 15%. Storage capacity at full pool is 356 thousand acre-feet. Project controls runoff of a drainage area of 389 square miles and is an integral unit of the comprehensive plan for development of the water resources of Willamette River Basin.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $44,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

8APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: John Day Lock and Dam, OR and WA

AUTHORIZATION: Rivers and Harbors and Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: The John Day project is on the Columbia River, 112 miles east of Portland, Oregon. The project is multi-purpose with hydropower and is part of the Federal Columbia River Power System. It consists of one dam, spillways, fish passage, a navigation lock, a powerhouse with sixteen 135-megawatt generators, and recreation sites.

FISCAL YEAR 2019 ALLOCATION: $5,718,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $6,304,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a boundary survey, security risk assessment, and plans and specifications for the navlock tainter valves.

BUDGETED AMOUNT FOR FY 2021: M: $1,210,000 **O:** $5,241,000 **T:** $6,451,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $4,248,400, of which $2,643,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $825,600, of which $825,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $899,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $478,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV – 76% and FRM – 24%. The locks are part of the Columbia and Snake River navigation system that extends from the mouth of the Columbia River to Lewiston, ID. The project provides 500 thousand acre-feet of flood control storage between river-elevations 257 and 268. The powerhouse has bays for 20 generating units of 135-megawatts each, but only 16 units have been installed for a present capacity of 2,160-megawatts. John Day Powerhouse is the second largest powerhouse in the USACE and generated 9,210,000 megawatt-hours of electricity in FY 2018, enough for 850,000 homes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $348,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lookout Point Lake, OR

AUTHORIZATION: Flood Control Acts, 1944, P.L. 75-761, 1950, PL. 81-516

LOCATION AND DESCRIPTION: Lookout Point Dam is 22 miles southeast of Eugene in Lowell, Oregon, on the Middle Fork of the Willamette River. The project is multi-purpose with hydropower consisting of two dams, spillways, and recreation sites. The main dam, Lookout Point, has three 40-megawatt generators, and the downstream, re-regulating dam, Dexter, has one 15-megawatt generator.

FISCAL YEAR 2019 ALLOCATION: $2,201,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,165,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $263,000 **O:** $2,304,000 **T:** $2,567,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $33,600, of which $33,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $2,002,300, of which $2,002,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $201,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $247,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including cultural resource management plan and inventory.

WS: $83,100, of which $65,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV – 2%, FRM – 95%, and WS – 3%. The main dam reservoir provides storage of 456 thousand acre-feet at full-pool level. The re-regulating dam forms a full pool of 27.5 thousand acre-feet. Reservoirs control runoff of a tributary drainage area of 991 square-miles. Generation from the hydropower facilities totaled 304,400 megawatt-hours for FY 2018, enough for 27,600 homes.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $39,000. There was an additional $22,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lost Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: The project is 27 miles northeast of Medford, OR on the upper Rogue River. The multi-purpose project with hydropower consists of a dam, a spillway, a powerhouse with two 24.5-megawatt generators, and recreation sites.

FISCAL YEAR 2019 ALLOCATION: $4,021,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,823,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $288,000 **O:** $4,254,000 **T:** $4,542,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,750,500, of which $1,750,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work. The funds will also be used for specific work activities including a seismic deformation analysis.

RC: $1,292,200, of which $940,200 is allocated for Joint activities – Funds will be used for commonly performed O&M work. The funds will also be used for specific work activities including a seismic deformation analysis.

H: N/A

EN: $1,199,200, of which $875,200 is allocated for Joint activities – Funds will be used for commonly performed O&M work. The funds will also be used for specific work activities including a seismic deformation analysis and a cultural resource management inventory.

WS: $300,100, of which $256,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work. The funds will also be used for specific work activities including a seismic deformation analysis.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: FRM – 46%, ENS – 23%, REC – 24%, and WS – 7%. The powerhouse with 49-megawatts of capacity generated 246,000 megawatt-hours of electricity in FY 2018, enough for 23,000 homes. This project has a regulating outlet with provisions for temperature regulation of releases for fishery enhancement. The reservoir is ten-miles long and provides 315 thousand acre-feet of usable storage. The runoff from a drainage area of 674 square-miles is controlled by the project.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $37,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: McNary Lock and Dam, OR and WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Central Oregon on the Columbia River near Umatilla, Oregon. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with a capacity of 980 Megawatts, a navigation lock with a vertical lift of 75 feet, high-use waterway, two fish ladders, a system of levees and pumping plants, a reservoir that has a water surface area of 38,800 acres, 16,908 acres of land that provides recreation facilities and wildlife mitigation habitat, juvenile fish holding, loading, and bypass facilities.

FISCAL YEAR 2019 ALLOCATION: $9,527,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a security assessment, updating the project environmental impact statement and completion of a major maintenance report for the Washington and Oregon fish ladder.

FISCAL YEAR 2020 ALLOCATION: $10,383,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including continuing crack and structural repairs to the downstream miter gate, spillway gate scoping, levee drainage pumps, Umatilla sewer line replacement and repairs to the McNary Navigation Lock sump unwatering system.

BUDGETED AMOUNT FOR FY 2021: M: $11,991,000 **O:** $3,930,000 **T:** $15,921,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $14,130,000, of which $2,422,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for a specific work activities including derrick crane repairs.

FRM: N/A

RC: $1,428,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $363,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV - 100%. Traffic through the navigation lock consists of grain, petroleum products, fertilizer, wood products and miscellaneous cargo. There are 16.9 thousand acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $4,870,000. There was an additional $6,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Willamette River at Willamette Falls, OR

AUTHORIZATION: Rivers and Harbors Act of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: Willamette Falls Locks is an inoperable, multiple-lift navigation lock located on the Willamette River in West Linn, Oregon.

FISCAL YEAR 2019 ALLOCATION: $665,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a design documentation report and plans and specifications for disposition recommendation measures.

FISCAL YEAR 2020 ALLOCATION: $364,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including disposition improvement plans and specifications.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $65,000 **T:** $65,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $65,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project includes four locks, a canal basin, and an extra guard lock used to prevent flooding when river levels are high. The system acts as a fluid staircase between the upper and lower reaches of the Willamette River. Due to structural/safety concerns, the project is inoperable and maintained in a caretaker status.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $472,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Willamette River Bank Protection, OR

AUTHORIZATION: Flood Control Acts of 1936 (authorizes bank protection and channel clearing), 1938 (PL. 75-685, added flood protection), 1950 (PL. 81-519, added an additional 77 locations)

LOCATION AND DESCRIPTION: This Federal project provides 90 miles of bank protection, drift embankments, drift barriers, and channel improvements at 223 locations along the Willamette River and its tributaries from river-mile 25 to 225.

FISCAL YEAR 2019 ALLOCATION: $168,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $201,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $155,000 **T:** $155,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $155,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The program consists of 223 federally constructed projects that were authorized to clear and revet river banks, construct bulkheads, and minor channel improvements. The project also maintains existing works constructed under the 1936 and 1938 Flood Control Acts for control of floods and preventing erosion at various locations along the Willamette River and tributaries.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $9,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Willow Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: The project is on Willow Creek at Heppner, Oregon. It is authorized for flood reduction. It consists of a roller-compacted, concrete dam, an uncontrolled spillway, outlet works, diversion works, and a reservoir.

FISCAL YEAR 2019 ALLOCATION: $964,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,003,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $783,000 **T:** $783,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $738,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $45,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project provides flood protection to the City of Heppner and downstream areas by controlling runoff from a drainage area of 96-square miles. Gross storage capacity of the project is 13 thousand acre-feet, consisting of 7.75 thousand acre-feet for exclusive flood control, 1.75 thousand acre-feet for joint flood control and irrigation, 1.75 thousand acre-feet exclusive irrigation, and 2 thousand acre-feet for fish, wildlife, recreation, sediment accumulation, and aesthetics.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $17,000. There was an additional $20,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Allegheny River, PA

AUTHORIZATION: Rivers and Harbors Act 1912 and 1935; Emergency Relief Administration program 1935

LOCATION AND DESCRIPTION: The project consists of the navigable portion of the Allegheny River, a low-use waterway, which extends northeastward 72 miles from its mouth at the Point in Pittsburgh to East Brady, PA. Commercial and recreational navigation is provided from eight locks and dams that are Locks and Dams 2 thru 9 within the 72-mile reach of river, including the C.W. Bill Young Lock and Dam (formerly Lock and Dam 3).

FISCAL YEAR 2019 ALLOCATION: $9,384,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including navigation safety sign installation at Lock and Dam 2, C.W. Bill Young Lock and Dam, Lock and Dam 6 and Lock and Dam 7; completion of concrete repairs to the vertical land wall at Lock and Dam 2; dam safety inspections; and dredging activities.

FISCAL YEAR 2020 ALLOCATION: $7,475,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work and navigation maintenance of Upper Guide Wall Walkway Phase 1 at C.W. Bill Young Lock and Dam.

BUDGETED AMOUNT FOR FY 2021: M: $3,352,000 **O:** $4,892,000 **T:** $8,244,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $8,244,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety inspection ($100,000) and dredging ($298,000).

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Allegheny River locks have various operating hours dictated by commercial navigation traffic levels. Lock 2 and CW Bill Young will be operated twenty-four hours a day and seven days a week. Locks 4 and 5 will be operated 7:00 am to 11:00 pm, seven days per week. Locks 6, 7, 8, and 9 will only be available for commercial navigation lockages by appointment.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,558,000. There was an additional $7,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Alvin R. Bush Dam, PA

AUTHORIZATION: Flood Control Act of 1954 and described in House Document 29, 84th Congress, 1st Session

LOCATION AND DESCRIPTION: Alvin R. Bush Dam is located on Kettle Creek approximately 8.4 miles above the mouth and about 15 miles above Renovo, Pennsylvania, in Clinton County. The earthen- and rock-fill dam has a maximum height of 165 feet above the streambed and a top length of 1,350 feet. The outlet works include a horseshoe-shaped tunnel, 13 feet in diameter, with 3 service gates. The spillway is uncontrolled and located in rock adjacent to the right abutment. The reservoir has a storage capacity of 75,000 acre-feet at spillway crest, and the pool at this elevation extends upstream for a distance approximately 8.8 miles. The permanent pool covers 160 acres and extends for 2.2 miles. The project controls a drainage area of 226 square-miles or about 92-percent of the Kettle Creek watershed.

FISCAL YEAR 2019 ALLOCATION: $865,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a hydraulic steel structure assessment and the demolition and disposal of the dam tender residence.

FISCAL YEAR 2020 ALLOCATION: $1,039,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including an updated sedimentation survey and the design plans and specifications for the spillway channel wall rock erosion.

BUDGETED AMOUNT FOR FY 2021: M: $7,179,000 **O:** $789,000 **T:** $7,968,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $7,725,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the spillway wall and channel repairs.

RC: $18,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $225,000 –Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including work to complete a master plan.

WS: N/A

OTHER INFORMATION: The recreation facilities are operated and maintained by the Commonwealth of Pennsylvania, Department of Conservation and Natural Resources as Kettle Creek State Park under a real estate agreement. Operation of the project provides benefit to a population at risk of 125,000.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $377,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Aylesworth Creek Lake, PA

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874) and described in Senate Document 141, 87th Congress, 2nd Session.

LOCATION AND DESCRIPTION: Aylesworth Creek Lake is in Archbald Borough, Pennsylvania, on Aylesworth Creek, one mile above its confluence with the Lackawanna River. The earthen- and rock-fill dam has a maximum height above the streambed of 90 feet and a top length of 1,270 feet. An 80-foot wide spillway, having a discharge capacity of 10,000 cubic-feet-per-second, was cut in the south bank. The outlet conduit is uncontrolled and consists of a 490-foot long, 36-inch diameter vitrified clay pipe encased in reinforced concrete. An auxiliary dike was required on the north bank of Aylesworth Creek to prevent flow from the lake into the Mayfield Creek drainage basin during high lake elevations. The dike is 410-feet long and has a maximum height of 28 feet. The reservoir extends about 4,600-feet upstream and inundates 87 acres at spillway crest with an elevation of 1,150 feet above mean sea level.

FISCAL YEAR 2019 ALLOCATION: $298,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $355,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including monumentation replacement and design, plans and specifications for Mayfield dike toe drain replacement.

BUDGETED AMOUNT FOR FY 2021: M: $463,000 **O:** $242,000 **T:** $705,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $684,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including work to install a new toe drain.

RC: $11,000 **–** Funds will be used for commonly performed O&M work.

H: N/A

EN: $10,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Lackawanna County operates and maintains Aylesworth Park under a real estate agreement. Operation of the project provides benefit to a population at risk of 280,000.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $118,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Beltzville Lake, PA

AUTHORIZATION: House Document 622, 87th Congress, 2nd Session (1962)

LOCATION AND DESCRIPTION: The project is located on Pohopoco Creek, a tributary of the Lehigh River, about 4.5 miles from the confluence with the Lehigh River and 4 miles east of Lehighton, Pennsylvania. Project purposes are flood control, recreation, and water supply. The project consists of a flood control, zoned earthen-fill embankment, a controlled outlet works and an open channel emergency spillway. The controlled reservoir capacity is 68,250 acre-feet as a spillway crest, with 1,390 acre-feet of inactive storage, 41,200 acre-feet for water supply, water quality control and recreation. The Commonwealth of Pennsylvania manages, under leases, the recreation facilities constructed by the Corps and the remainder of the project lands. The Corps manages the overlook and visitor center and the lands immediately adjacent to the dam structure.

FISCAL YEAR 2019 ALLOCATION: $1,943,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary monumentation, pest and invasive species maintenance, and to provide safe demolition of barn building and remove debris from the property.

FISCAL YEAR 2020 ALLOCATION: $2,337,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairing the hydraulic steel structure, seal pipes in intake tower and to rehabilitate the right flood control gate.

BUDGETED AMOUNT FOR FY 2021: M: $80,000 **O:** $1,204,000 **T:** $1,284,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,251,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $28,000 – Funds will be used for commonly performed O&M work.

WS: $5,000 - Funds will be used for commonly performed O&M work

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $574,000. There was an additional $3,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Blue Marsh Lake, PA

AUTHORIZATION: House Document 522, 87th Congress, 2nd Session (1962)

LOCATION AND DESCRIPTION: The project is located on Tulpehocken Creek, a tributary of the Schuylkill River, about 6 miles northwest of Reading, Pennsylvania. The project consists of an earthen- and rock-fill dam with a spillway, a low level outlet works, three high level saddle dikes located in low points in the reservoir rim, and a levee and interior drainage system to protect the settlement of Bernville, Pennsylvania northwest of the Blue Marsh Dam.

FISCAL YEAR 2019 ALLOCATION: $3,646,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repair bulkheads, replace equipment at Bernville pump station, wildlife and habitat management, and perform energy audit and install insulation and geothermal units in Rangers Operations Building and Conference Center.

FISCAL YEAR 2020 ALLOCATION: $3,267,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repair hydraulic leaks in intake structure and flush the hydraulic system, repair leaf gate actuator in service gate number 1 and to rehabilitate the right flood control gate.

BUDGETED AMOUNT FOR FY 2021: M: $334,000 **O:** $2,620,000 **T:** $2,954,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $888,000 – Funds will be used for commonly performed O&M work.

RC: $1,632,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $429,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including wildlife and habitat management.

WS: $5,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Over 4,000 educational contacts are made each year.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,305,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Conemaugh River Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Conemaugh Dam and reservoir is located on the Conemaugh River in Indiana and Westmoreland Counties, PA. The dam is located 7.5 miles upstream from Saltsburg where the Conemaugh River and Loyalhanna Creek join to form the Kiskiminetas River. Conemaugh River Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $1,730,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including safety repairs to the road and parking areas, security measures at the project and pest and invasive species management.

FISCAL YEAR 2020 ALLOCATION: $1,868,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including installation of a motor and gearing on the jib crane, dam safety inspection activities, management of special status species, and real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $244,000 **O:** $1, 430,000 **T:** $1, 674,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,405,000 – Funds will be used for commonly performed O&M work. Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an emergency exercise.

RC: $87,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $182,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary survey and rectification.

WS: N/A

OTHER INFORMATION: Conemaugh River Lake is estimated to have prevented more than $2.2 billion in damages since its completion in 1953.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $225,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 +from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cowanesque Lake, PA

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500), 85th Congress and described in House Document 394, 84th Congress, 2nd Session

LOCATION AND DESCRIPTION: Cowanesque Lake is located in Tioga County of Pennsylvania, on the Cowanesque River, 2 miles upstream of the confluence of the Cowanesque River with the Tioga River at Lawrenceville.

FISCAL YEAR 2019 ALLOCATION: $2,713,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including an underwater inspection, hydraulic steel structure inspection, and assessment, emergency exercise and water conservation improvements.

FISCAL YEAR 2020 ALLOCATION: $2,406,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including hydraulic steel structure inspection, install a new water reservoir at Tompkins Campground and rehabilitate the Tompkins boat ramp.

BUDGETED AMOUNT FOR FY 2021: M: $392,000 **O:** $1,865,000 **T:** $2,257,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,206,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacing the water control tower roof and repair of wet well ladders.

RC: $653,000 - – Funds will be used for commonly performed O&M work.

H: N/A

EN: $316,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including updating the master plan and construction of fish habitat.

WS: $82,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 295,000. Flood damages prevented are estimated through FY 2018 at $313 million. A conservation lake is maintained at elevation 1080 (National Geodetic Vertical Datum) having a surface area of 1090 acres. Seventy-nine percent of the conservation storage space is allocated for water supply storage owned by the Susquehanna River Basin Commission.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,752,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Crooked Creek Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Crooked Creek Dam is located on Crooked Creek, in Armstrong County, PA. The dam is located 7.2 miles above the junction of the creek with the Allegheny River near Ford City. Crooked Creek Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $4,021,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including initiating replacement of the gate operating machinery, security measures at the project, update to the Master Plan, management of cultural resources and management of special status species.

FISCAL YEAR 2020 ALLOCATION: $3,534,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including continuing replacement of the gate operating machinery, dam safety inspection activities, updating master plan, and real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $3,528,000 **O:** $1,598,000 **T:** $5,126,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $4,677,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an emergency tabletop exercise, replace sluice gate seals, replace gate operating machinery on one gate, and replace gate operating machinery on emergency gate.

RC: $377,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $72,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Crooked Creek Lake estimated to have prevented more than $550 million in damages since its completion in 1940.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $150,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Curwensville Lake, PA

AUTHORIZATION: Flood Control Act of 1954 and described in House Document 29, 84th Congress, 1st Session

LOCATION AND DESCRIPTION: Curwensville Dam is located on the West Branch Susquehanna River, 0.6 miles upstream from Curwensville, Pennsylvania. The dam is an earthen-fill embankment 2,850 feet in length with a spillway and a gate-controlled outlet.

FISCAL YEAR 2019 ALLOCATION: $1,049,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a National Register nomination evaluation, initiate a master plan and NEPA review and the demolition and disposal of the dam tender residence.

FISCAL YEAR 2020 ALLOCATION: $930,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $263,000 **O:** $952,000 **T:** $1,215,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $858,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including painting a service bridge.

RC: $25,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $250,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities to include completing a master plan and environmental assessment.

WS: $82,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 130,000. Flood damages prevented are estimated through FY 2018 at $303 million. Fifty-seven percent of the conservation storage space is allocated for water supply storage, owned by the Susquehanna River Basin Commission. Clearfield County operates and maintains the recreation area under a real estate agreement.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $485,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: East Branch Clarion River Lake, PA

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761) and 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: East Branch Dam is on the East Branch of the Clarion River, 7.5 miles upstream from its junction with its West Branch at Johnsonburg, PA. The reservoir is located entirely in Elk County, PA. East Branch Clarion River Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $6,433,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing the gate operating machinery for three gates.

FISCAL YEAR 2020 ALLOCATION: $2,661,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including rehabilitation of water well #1, dam safety inspection activities, real estate boundary and flowage easement inspection, monitoring and maintenance and to replace one gate operating machinery.

BUDGETED AMOUNT FOR FY 2021: M: $383,000 **O:** $1,309,000 **T:** $1,692,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,415,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety inspection activities.

RC: $223,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $54,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: East Branch Clarion River Lake is estimated to have prevented more than $92.3 million in damages since its completion in 1951.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $271,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Foster J. Sayers Dam, PA

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Foster Joseph Sayers Dam is located on Bald Eagle Creek one mile upstream from Blanchard, New York and 14 miles above the confluence with the West Branch of the Susquehanna River at Lock Haven, Pennsylvania. The project consists of an earthen-fill dam with a spillway and gated outlet.

FISCAL YEAR 2019 ALLOCATION: $2,143,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including plans and specifications for stilling basin/channel repairs, install new toe drain system and repair a large concrete spall and roof downspout at operating tower.

FISCAL YEAR 2020 ALLOCATION: $6,586,000

DESCRIPTIONS OF WORK FOR FY 2020:
Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including hydraulic steel structure inspections, monumentation replacement, stilling basin/channel repairs, tower repairs, floatwell system repairs and lead paint removal and repainting.

BUDGETED AMOUNT FOR FY 2021: M: $477,000 **O:** $872,000 **T:** $1,349,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,229,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the removal of lead paint and repainting the bridge.

RC: $33,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $87,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The Foster Joseph Sayers Dam reservoir has a storage capacity of 99,000 acre-feet and is designed to reduce flood heights on Bald Eagle Creek below the dam and along the West Branch of the Susquehanna River below Lock Haven, Pennsylvania. Operation of the project provides benefit to a population at risk of 125,000. Flood damages prevented are estimated through FY 2018 at $234 million. The project maintains a pool of 1,730 acres during the recreation season. The Commonwealth of Pennsylvania, Department of Conservation and Natural Resources operates and maintains the recreation area, Bald Eagle State Park, under a real estate lease.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $864,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Francis E. Walter Dam & Reservoir, PA

AUTHORIZATION: Project authorized by House Document 79-587 of 1946, modified by House Document 87-522 of 1962

LOCATION AND DESCRIPTION: The project is on the Lehigh River, just below the confluence of Bear Creek with the Lehigh River, six miles above White Haven, Pennsylvania, and 77 miles above the junction of the Lehigh and Delaware Rivers at Easton, Pennsylvania. The project consists of an earthen- and rock-filled dam with a concrete spillway and a gate controlled outlet.

FISCAL YEAR 2019 ALLOCATION: $2,693,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including pest and invasive species management, boundary monumentation, and repair entrance roads.

FISCAL YEAR 2020 ALLOCATION: $1,903,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including rehabilitate and inspect right service gate, repair leaks in flood control bulkheads and repair the remaining phases of the entrance roads.

BUDGETED AMOUNT FOR FY 2021: M: $115,000 **O:** $795,000 **T:** $910,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $858,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $52,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The reservoir capacity is 108,000 acre-feet for flood management with a conservation pool of 2,000 acre-feet capacity. Recreation facilities also include a boat launch area, hiking trails and provision for fishing and hunting. Whitewater and fishing industries in the area utilize dam releases.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $3,066,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: General Edgar Jadwin Dam and Reservoir, PA

AUTHORIZATION: River and Harbor Act of 1948 (P L. 80-858).

LOCATION AND DESCRIPTION: The project is located in Wayne County, Pennsylvania, along the Dyberry Creek, a tributary of the Lackawaxen River, about three miles upstream of Honesdale, Pennsylvania, and 30 miles above the junction of the Lackawaxen and Delaware Rivers. The facility consists of an earthen- and rock-fill dam with a low-level un-gated outlet works and an emergency spillway.

FISCAL YEAR 2019 ALLOCATION: $244,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including pest and invasive species maintenance.

FISCAL YEAR 2020 ALLOCATION: $332,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $50,000 **O:** $331,000 **T:** $381,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $381,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including hydraulic steel structures inspection.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project was completed and placed into service in 1960. Reservoir capacity is 24,500 acre-feet for flood control, with no conservation pool. There is no permanent pool and no provisions have been made for recreational use; however, low impact opportunities such as hunting, stream fishing, hiking and bird watching are enjoyed by visitors to the project lands.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $135,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Johnstown, PA

AUTHORIZATION: Flood Control Acts of 1936 (P.L. 74-738) and 1937

LOCATION AND DESCRIPTION: The project is located in Pennsylvania, 58 miles east of Pittsburgh in Cambria County along the Conemaugh River, Little Conemaugh River, and Stonycreek River. Major rehabilitation of the nine-mile-long local flood protection project was authorized in 1991.

FISCAL YEAR 2019 ALLOCATION: $1,690,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including sedimentation removal and maintenance on the Little Conemaugh River and risk management coordination.

FISCAL YEAR 2020 ALLOCATION: $21,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $2,033,000 **O:** $76,000 **T:** $2,109,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,109,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including to removing shoals 7, 8, 10 & 11.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project is estimated to have prevented more than $830 billion in damages since its completion in 1939.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $260,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Kinzua Dam and Allegheny Reservoir, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 1938 (P.L. 75-761) and 1941

LOCATION AND DESCRIPTION: Kinzua Dam is located on the Allegheny River in Warren County, PA about 198 miles above the mouth of the river at Pittsburgh. Allegheny Reservoir is located in Warren and McKean Counties and Cattaraugus County, NY. Kinzua Dam and Allegheny Reservoir is a multi-purpose reservoir with nine boat ramps, numerous campgrounds, extensive trails, picnic areas, and a visitor information center.

FISCAL YEAR 2019 ALLOCATION: $1,565,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dam safety inspection activities, replacement of four-way hydraulic valves and modification of piping, and pest and invasive species management activities.

FISCAL YEAR 2020 ALLOCATION: $1,592,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam safety inspection activities, water quality equipment, pest and invasive species management, real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $958,000 **O:** $1,810,000 **T:** $2,768,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,467,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety inspection activities, to update water control manual, and replace potable water treatment/storage system.

RC: $220,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $81,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Kinzua Dam and Allegheny Reservoir is estimated to have prevented more than $1.3 billion in damages since its completion in 1965. The project also houses a 400 megawatt hydropower plant operated by the First Energy Corporation. Flow regulation helps to maintain navigable depths for commercial traffic on the Allegheny and upper Ohio Rivers.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $202,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $96,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Loyalhanna Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Loyalhanna Dam is on Loyalhanna Creek, 4.75 miles above its junction with the Conemaugh River at Saltsburg, PA. The multi-purpose reservoir is located entirely in Westmoreland County.

FISCAL YEAR 2019 ALLOCATION: $1,257,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $6,069,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including motorizing the jib crane swing #2 gantry crane, continuing repairs to the service bridge and deck and dam safety inspection activities.

BUDGETED AMOUNT FOR FY 2021: M: $264,000 **O:** $1,758,000 **T:** $2,022,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,752,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety inspection activities.

RC: $163,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $107,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Loyalhanna is estimated to have prevented more than $533 million in damages since its completion in 1943.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $221,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mahoning Creek Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Mahoning Dam is located on Mahoning Creek in Armstrong County. The dam is located 22.9 miles upstream from the junction of the creek and the Allegheny River. The reservoir it creates is in Armstrong, Indiana and Jefferson Counties. Mahoning Creek Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $1,648,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including final engineering and design for replacement of the service bridge and pier rehabilitation.

FISCAL YEAR 2020 ALLOCATION: $1,421,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam safety inspection activities and management of special species status.

BUDGETED AMOUNT FOR FY 2021: M: $405,000 **O:** $1,286,000 **T:** $1,691,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,518,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety inspection activities and sump pumps.

RC: $76,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $97,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Mahoning Creek Lake is estimated to have prevented more than $689 million in damages since its completion in 1941.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $265,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Monongahela River, PA and WV

AUTHORIZATION: Rivers and Harbors Act of 1902, 1905, 1909, 1922, 1930, and 1950; Water Resources Development Act of 1986 and 1992; and Supplemental Appropriations Act of 1985

LOCATION AND DESCRIPTION: The project consists of the navigable portion of the Monongahela River for the entire 128.7 miles of the river, from just above Fairmont, WV to The Point at Pittsburgh, PA. The Federal project includes nine navigation locks and dams; they are Braddock, Grays Landing, Hildebrand, Maxwell, Morgantown, Opekiska, Point Marion, and Locks and Dams Numbers 3 and 4.

FISCAL YEAR 2019 ALLOCATION: $15,981,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging to maintain the navigation channel, dam safety inspection activities, and replacing the valve interlock and four-way hydraulic valves at Braddock Locks and Dam.

FISCAL YEAR 2020 ALLOCATION: $21,742,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacement of the Point Marion holding tank, dam safety inspection activities, navigation maintenance repairs to the Braddock Lock and Dam Miter Gate Auxiliary Chamber and the Maxwell Lock and Dam Tainter Gates and Floating Mooring Bitts.

BUDGETED AMOUNT FOR FY 2021: M: $6,455,000 **O:** $11,695,000 **T:** $18,150,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $18,150,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging and dam safety inspection activities.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The locks between Braddock and Point Marion are operated continuously. Morgantown Lock is open one shift, 7 days a week. Hildebrand and Opekiska Locks will only be available for commercial navigation lockages by appointment.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $585,000. There was an additional $22,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ohio River Locks and Dams, PA, OH, and WV

AUTHORIZATION: Rivers and Harbors Act of 1909 and 1918

LOCATION AND DESCRIPTION: The Federal project consists of the navigable portion of the Ohio River from The Point at Pittsburgh, 127.2 miles downstream to New Martinsville, WV. Commercial and recreational navigation is provided for by six locks and dams: Emsworth, Dashields, Montgomery, New Cumberland, Pike Island, and Hannibal.

FISCAL YEAR 2019 ALLOCATION: $48,350,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including installing lower bulkhead slots in the primary lock chamber, installing lift gates, stabilizing the monolith crack and replacing the dam gate programmable logic controllers at Montgomery Locks and Dam, repairing lock gate machinery at Pike Island Locks and Dam, extending the handrails at Hannibal Locks and Dam, replacing the auxiliary upstream miter gates at New Cumberland Locks and Dam, final design for the crack stabilization of land wall at Emsworth Locks and Dam and design of a 4-corner hydraulic system in the main chamber at Pike Island.

FISCAL YEAR 2020 ALLOCATION: $41,443,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam signage at Dashields Lock and Dam, building a needle dam in the auxiliary chamber at Montgomery Lock and Dam, repair miter gate anchorages and dewatering at Emsworth Lock and Dam; repairing Pike Island River Wall Monolith 33/34 crack; repair tainter gates at Pike Island; dewatering and replace the New Cumberland Auxiliary Upstream Miter Gates; install two lift gates on Montgomery Lock and Dam and replace the dam gate programmable logic controllers; and, install a high visibility boom system to span the river upstream of the low head dam at Dashields Lock and Dam.

BUDGETED AMOUNT FOR FY 2021: M: $20,433,000 **O:** $14,123,000 **T:** $34,556,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $34,556,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including repair main chamber emptying valves and sector gears at Hannibal Lock and Dam, replace auxiliary chamber sill installation and bulkhead closure at New Cumberland Lock and Dam, replace bulkhead hoist electrical conductor rail system at Montgomery Lock and Dam, dam safety inspection activities, and repair main chamber valve anchorages and dewatering at Montgomery Lock and Dam.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The six locks and dam structures on the Ohio River have an average age of 62

years (82 years for the upper three locks and 43 years for the lower three locks). This project funds the O&M of the three oldest structures on the mainstem of the Ohio River.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $15,050,000. There was an additional $240,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

Ohio APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ohio River Open Channel Work, PA, OH and WV

AUTHORIZATION: Rivers and Harbors Act dated 1909 and 1918

LOCATION AND DESCRIPTION: The project is located along the Ohio River from the confluence of the Monongahela and Allegheny Rivers in Pittsburgh to river mile 127.2 at New Martinsville, WV. The Ohio River Open Channel has an authorized depth of nine feet. The project encompasses six locks and dams: Emsworth, Dashields, Montgomery, New Cumberland, Pike Island, and Hannibal.

FISCAL YEAR 2019 ALLOCATION: $1,383,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging.

FISCAL YEAR 2020 ALLOCATION: $949,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging t and environmental studies and monitoring.

BUDGETED AMOUNT FOR FY 2021: M: $826,000 **O:** $0 **T:** $826,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $826,000 – Funds will be used for specific work activities including dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The annual average tonnage of commodities transported on this waterway over the last five years is 214 million tons.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $352,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Prompton Lake, PA

AUTHORIZATION: This project was authorized by House Document 80-113 (1948), as modified by House Document 87-522 (1962)

LOCATION AND DESCRIPTION: The project is on Lackawaxen River within the Borough limits of Prompton, four miles upstream from Honesdale, Pennsylvania, and 30 miles above the confluence of the Lackawaxen and Delaware Rivers. The project consists of an earth- and rock-filled dam, 140-feet high and 1,226-feet long on the crest. The reservoir has a capacity of 20,300 acre-feet for flood control, 28,000 acre feet of excess storage with a conservation pool of 3,400 acre-feet capacity.

FISCAL YEAR 2019 ALLOCATION: $600,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairing moderate leak on intake structure.

FISCAL YEAR 2020 ALLOCATION: $549,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $40,000 **O:** $519,000 **T:** $559,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $531,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: $28,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $269,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Punxsutawney, PA

AUTHORIZATION: The Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Punxsutawney, PA is located in Jefferson County on Mahoning Creek, 52 miles above its mouth and 30 miles above Mahoning Creek Lake Dam. Punxsutawney, PA is a local flood protection project. The project provides flood protection by channel enlargement, dikes, and walls. The improvements are designed to accommodate discharges 20 percent greater than that of the maximum flood of record.

FISCAL YEAR 2019 ALLOCATION: $712,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairing the concrete channel.

FISCAL YEAR 2020 ALLOCATION: $1,203,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including erosion repairs, sediment removal and concrete channel repairs.

BUDGETED AMOUNT FOR FY 2021: M: $75,000 **O:** $46,000 **T:** $121,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $121,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Punxsutawney is estimated to have prevented $103 million in flood damages since its completion in 1940.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $560,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Raystown Lake, PA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Raystown Lake is located on the Raystown Branch about 5.5 miles upstream from its confluence with the Juniata River in Huntingdon County of Pennsylvania. The dam is an earth- and rock-fill structure with a two-bay gated spillway with two tainter gates.

FISCAL YEAR 2019 ALLOCATION: $6,228,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including plans and specifications for outlet tunnel channel, an inspection of low water gates, waterline bank stabilization, removal of blockages in the foundation drains, purchasing a new emergency generator, a design documentation report for the tunnel gates and a new water treatment plant.

FISCAL YEAR 2020 ALLOCATION: $4,538,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $3,863,000 **O:** $4,261,000 **T:** $8,124,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $4,987,000 - Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including modifications required for the tainter gate renovations and correct arc-flash deficiencies.

RC: $2,137,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $1,000,000 - Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including maintaining pollinator habitat.

WS: N/A

OTHER INFORMATION: The project encompasses 29,700 total acres and flood control storage available is 248,000 acre-feet. Operation of the project provides benefit to a population at risk of 95,000. Flood damages prevented through FY 2018 are $297 million. The Corps of Engineers operates and maintains 12 public access areas. Additionally, there are four recreation real estate concession leases.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $4,529,000. There was an additional $61,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

SoAPPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Shenango River Lake, PA

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Shenango Dam is located on the Shenango River about 0.8 mile north of Sharpsville and 34.2 miles above its junction with the Mahoning River near New Castle, PA where it forms the Beaver River. The reservoir is located in Mercer County, PA. The project extents into Trumbull County, OH northeast of Youngstown. Shenango River Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $2,865,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including constructing safe access to the stilling basin, repairing erosion at the right bank gutter, security measures and management of special status species.

FISCAL YEAR 2020 ALLOCATION: $2,870,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including rehabilitation of bulkhead hoist, replacing electric service to the dam, dam safety inspection activities and real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $538,000 **O:** $2,634,000 **T:** $3,172,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,101,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety inspection activities.

RC: $864,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $207,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary survey and rectification.

WS: N/A

OTHER INFORMATION: Shenango River Lake is estimated to have prevented $209 million shenin flood damages since its completion in 1965.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $115,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Stillwater Lake, PA

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Stillwater Lake is located in Susquehanna County of Pennsylvania on the Lackawanna River four miles north and upstream from Forest City. The dam is an earthen-fill structure, 1,700 feet long and rises 75 feet above the streambed, with a spillway and gate controlled outlet.

FISCAL YEAR 2019 ALLOCATION: $863,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $632,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $152,000 **O:** $371,000 **T:** $523,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $502,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including removal of debris from spillway.

RC: $8,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $13,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project reduces flood heights on the Lackawanna River, downstream of the dam and on the Susquehanna River, downstream from its confluence with the Lackawanna River. Operation of the project provides benefit to a population at risk of 285 thousand. Flood damages prevented through FY 2018 are an estimated $211 million. Pennsylvania-American Water Company utilizes Stillwater as a source of water supply for the Forest City Water Purification Plant. The Pennsylvania Fish and Boat Commission operate and maintain a boat launch at the lake under a real estate agreement.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $577,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tioga-Hammond Lakes, PA

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: The project is located just upstream of Tioga, Pennsylvania. The project consists primarily of two separate dams, one on Tioga River, and one on Crooked Creek. Both dams are located two miles upstream of the confluence of the two streams. The lakes are joined by a gated connecting channel in a saddle of the ridge separating the two streams. An uncontrolled spillway in Hammond Dam serves both reservoirs. A gated outlet conduit is provided in the left abutment of Tioga Dam for the control of flows for both reservoirs. An additional project feature is the Mansfield local flood protection project which consists of channel improvements, levees, and pumping stations to protect the borough of Mansfield during high water events.

FISCAL YEAR 2019 ALLOCATION: $3,596,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,120,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including hydraulic steel structure inspections, three pump station electrical upgrades for Mansfield Levee, and Lambs Creek Road culvert replacements.

BUDGETED AMOUNT FOR FY 2021: M: $2,463,000 **O:** $2,943,000 **T:** $5,406,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $4,110,000 – Funds will be used for commonly performed O&M work.

RC: $848,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $448,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Operation of the project provides benefit to a population at risk of 300 thousand. Flood damages prevented through FY 2018 are $578 million. The Corps operates and maintains the Ives Run and Lambs Creek recreation areas, as well as two overlooks.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,428,000. There was an additional $46,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tionesta Lake, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Tionesta Dam is located 78 miles northeast of Pittsburgh in Forest County. It lies on Tionesta Creek, 1.17 miles above the junction of the creek with the Allegheny River at Tionesta, PA. Tionesta Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $2,672,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including installing a larger equalization door on the bulkhead to allow pressure to equalize and engineering and design to replace gate operating machinery.

FISCAL YEAR 2020 ALLOCATION: $6,940,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including installation of a flat wire rope and initiation of the replacement of the gate operating machinery, real estate boundary and flowage easement inspection, monitoring and maintenance and to replace gate operating machinery.

BUDGETED AMOUNT FOR FY 2021: M: $3,418,000 **O:** $2,213,000 **T:** $5,631,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $4,888,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replace gate operating machinery and dam safety inspection activities.

RC: $577,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $166,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Tionesta Lake is estimated to have prevented more than $576 million in flood damages since its construction in 1940.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $249,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Union City Lake, PA

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-4)

LOCATION AND DESCRIPTION: Union City Dam is located seven miles south of Union City in Erie County. It lies on French Creek 73.9 miles upstream from its junction with the Allegheny River near Franklin, PA. Union City Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $534,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including security upgrades.

FISCAL YEAR 2020 ALLOCATION: $541,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam safety inspection activities and real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $103,000 **O:** $622,000 **T:** $725,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $511,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an emergency exercise.

RC: $34,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $180,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan.

WS: N/A

OTHER INFORMATION: Union City Lake is estimated to have prevented more than $97 million in damages since its construction in 1971.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $32,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Woodcock Creek Lake, PA

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-4)

LOCATION AND DESCRIPTION: Woodcock Dam is located three miles southeast of Saegertown in Crawford County on Woodcock Creek. The dam is 3.6 miles upstream from the creek's confluence with French Creek at a point 37.1 miles upstream from its confluence with the Allegheny River at Franklin, PA. Woodcock Creek Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $1,323,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M)) work. Funds were also used for specific work activities including replacing rubber seals on the bulkheads and emergency wheel gate, security upgrades, installing lighting as a cost savings measure and pest and invasive species management.

FISCAL YEAR 2020 ALLOCATION: $1,223,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam safety inspection activities and real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $231,000 **O:** $1,010,000 **T:** $1,241,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $945,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dam safety inspection activities.

RC: $200,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $96,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Woodcock Creek Lake is estimated to have prevented $35 million in flood damages since its construction in 1974.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $105,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: York Indian Rock Dam, PA

AUTHORIZATION: Flood Control Act of 1936, amended by Flood Control Act of 1938

LOCATION AND DESCRIPTION: Project comprises the protective works for York, Pennsylvania, and consists of Indian Rock Dam, which is three miles upstream from York, and channel improvements on Codorus Creek in the City of York. Indian Rock Dam is an earthen and rock structure with a side-channel spillway and gated outlet. Codorus Creek project consists of channel improvements including channel widening and deepening, flood walls, levees, protection of bank slopes, and removal of a mill dam to increase channel capacity.

FISCAL YEAR 2019 ALLOCATION: $1,382,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $917,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $563,000 **O:** $678,000 **T:** $1,241,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,217,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including the repainting of the spillway bridge.

RC: $12,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $12,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The typically dry reservoir area has a storage capacity of 28 thousand acre-feet and controls a drainage area of 94 square miles. Project protects the community of York, Pennsylvania, against flood discharges about 33-percent greater than the record flood of August 1933. Tropical storm Agnes (June 1972) filled the flood control reservoir and produced spillway flow. Operation of the project protects a population at risk of 20 thousand. Flood damages prevented through FY 2018 are an estimated $55 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $11,706,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Youghiogheny River Lake, PA and MD

AUTHORIZATION: Flood Control Act of 1938 (P.L 75-761)

LOCATION AND DESCRIPTION: The dam is located 1.2 miles above Confluence, Pennsylvania on the Youghiogheny River about 74.2 miles above its junction with the Monongahela River at McKeesport, Pennsylvania. The reservoir is located in Fayette and Somerset Counties in Pennsylvania and Garrett County in Maryland. Youghiogheny River Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $2,760,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including inspection activities, cultural resources site monitoring and protection, management of special status species and shoreline management.

FISCAL YEAR 2020 ALLOCATION: $3,247,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dam safety inspection activities, comprehensive master plan update and real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $545,000 **O:** $2,324,000 **T:** $2,869,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,101,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an emergency exercise.

RC: $495,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $265,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan update and boundary survey and rectification.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Youghiogheny River Lake is estimated to have prevented $597 million in flood damages since its construction in 1943. Water supply agreements result in annual reimbursement to the Treasury of $160,000.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $284,000. There was an additional $4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

RHODE ISLAND

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fox Point Hurricane Barrier, RI

AUTHORIZATION: The Flood Control Act of 1958 (P.L. 85-500) as modified by Section 2866 of the National Defense Authorization Act of 2007 (P.L. 109-364)

LOCATION AND DESCRIPTION: Fox Point Hurricane Barrier is across the Providence River in Providence, Rhode Island, one mile from the downtown area. The barrier is a concrete structure, with a pumping station and three tainter gates. When closed, the gates prevent entry of tidal floodwaters into the City.

FISCAL YEAR 2019 ALLOCATION: $1,980,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including arc flash assessment, inspect pumps, mitigate effects of concrete expansion, and replace heating system.

FISCAL YEAR 2020 ALLOCATION: $2,762,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replace barrier electrical transformers.

BUDGETED AMOUNT FOR FY 2021: **M:** $95,000 **O:** $585,000 **T:** $680,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $680,000 – Funds will be used for commonly performed O&M work. .

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: This project has prevented an estimated $6.3 million in flood damages since placed in service in 1966.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,685,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Woonsocket Local Protection Project, RI

AUTHORIZATION: Authorized by the Flood Control Act of 1944

LOCATION AND DESCRIPTION: The Woonsocket Local Protection Project is located along the Blackstone River in Rhode Island, extending about 8,300 feet downstream from the Massachusetts and Rhode Island border to Woonsocket Falls Dam in the center of Woonsocket, Rhode Island. The project consists of widening, deepening, and straightening of the river channel 8,300 feet upstream of Woonsocket Falls Dam, and includes construction of a pumping station, 1,115 feet of earthen dike and 316 feet of concrete floodwall. The project included replacement of the Woonsocket Falls Dam with a concrete overflow structure 266-feet wide and equipped with four tainter gates.

FISCAL YEAR 2019 ALLOCATION: $1,410,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacement of roofs, tainter gate lubrication, replacement of generator, and repairs to the project toe drains.

FISCAL YEAR 2020 ALLOCATION: $691,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacement of singleton pump station sluice gate operator, structural analysis of gate, and array testing of trunnion pins.

BUDGETED AMOUNT FOR FY 2021: **M:** $105,000 **O:** $491,000 **T:** $596,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $596,000 - Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $166.4 million in flood damages since being placed in service in 1960. The project was turned over to the City of Woonsocket to operate and maintain in accordance with the Assurance Agreement in 1963. The National Defense Authorization Act of 2008 transferred responsibility of the operation and maintenance of the project to the Corps of Engineers.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $541,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

SOUTH CAROLINA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Atlantic Intracoastal Waterway (AIWW), SC

AUTHORIZATION: River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: The AIWW is a naturally protected low use, inland navigation project that generally parallels the Atlantic coast between Norfolk, Virginia and the St. John's River in Florida. South Carolina's portion runs a distance of 210 miles and has an authorized depth of 12 feet. Approximately 90 small to medium-sized disposal areas along the AIWW totaling 2,399 acres are maintained. The AIWW is divided into three reaches in South Carolina and the current controlling depth of the project is -0.5 feet below mean lower low water (MLLW).

FISCAL YEAR 2019 ALLOCATION: $6,613,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including maintenance dredging and placement area maintenance.

FISCAL YEAR 2020 ALLOCATION: $3,826,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds will also be used for specific work activities including channel condition surveys and maintenance of placement area to include ditching, diking and erosion control.

BUDGETED AMOUNT FOR FY 2021: M: $100,000 **O:** $0 **T:** $100,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $100,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including channel condition surveys.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Utilizing the AIWW, approximately 14,000 barrels of jet fuel are delivered on a weekly basis from Jacksonville, Florida to the Marine Corps Air Station in Beaufort, South Carolina.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $6,591,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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SOUTH DAKOTA

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Big Bend Dam and Lake Sharpe, SD

AUTHORIZATION: The Flood Control Act of 1944 (PL 78-534) and the Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: The Big Bend Project is located northwest of Chamberlain, South Dakota, on South Dakota Highway 47, near Ft. Thompson, South Dakota. Construction on the dam began in 1959 and closure of the embankment occurred in 1963. The dam measures 10,570 feet in length and has a maximum height of 95 feet. Lake Sharpe extends 80 miles upstream, creates 200 miles of shoreline, and has a maximum depth of 78 feet at the dam.

FISCAL YEAR 2019 ALLOCATION: $10,499,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replace power plant high bay lighting system, crest road lighting upgrade, maintenance yard security lighting, security risk assessment, underwater bridge inspections, seepage analysis phase II, and update Big Bend interim risk reduction measures plan.

FISCAL YEAR 2020 ALLOCATION: $9,591,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including rehabilitate relief wells and wildlife and habitat management.

BUDGETED AMOUNT FOR FY 2021: M: $1,883,000 **O:** $8,106,000 **T:** $9,989,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $752,000 – Funds will be used for commonly performed O&M work.

H: $8,362,000, of which $3,389,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including hydraulic steel structure inspection of intake service gates and spillway stoplogs.

EN: $864,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 100%. Cumulative flood damages prevented, from project start through FY 2017, $770 million. Plant installed generation capacity of 497 Megawatts, produced $25.8 million in power production in FY 2017.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $587,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cold Brook Lake, SD

AUTHORIZATION: River and Harbor Act of 1941 (PL 77-228) and Flood Control Act of 1944 (Pick-Sloan Act, PL 78-534)

LOCATION AND DESCRIPTION: Cold Brook Dam is located one mile north of Hot Springs, South Dakota. The dam is 925 feet in length and has a height of 127 feet. Cold Brook Lake is 1.2 miles in length and its multipurpose pool contains 520 acre-feet of water. Cold Brook Dam was constructed to reduce flood damage in the Fall River basin. In years past, the Fall River was subject to flash flooding, causing damage to Hot Springs, South Dakota and nearby rural areas. The Flood Control Act of 1941 authorized the construction of these two dams and the channel improvements within the community of Hot Springs.

FISCAL YEAR 2019 ALLOCATION: $492,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $409,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $147,000 **O:** $325,000 **T:** $472,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $382,000 – Funds will be used for commonly performed O&M work.

RC: $78,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $12,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 total $2.7 million. The project encompasses 484 land acres, 36 water acres with 2 miles of shoreline, and has a total reservoir storage capacity of 7.2 thousand acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $45,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cottonwood Springs Lake, SD

AUTHORIZATION: Flood Control Acts of 1941 and 1944 (P.L. 77-228, 78-534)

LOCATION AND DESCRIPTION: Cottonwood Springs Dam is located 4.5 miles west of Hot Springs, South Dakota. The dam and channel improvements were constructed under the authorization of Flood Control Act of 1941 to reduce flood damage in the Fall River basin. In years past, the Fall River was subject to flash flooding, causing damage to Hot Springs, South Dakota and nearby rural areas. The dam is 1,190 feet in length and stands 123 feet high.

FISCAL YEAR 2019 ALLOCATION: $260,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operations and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $343,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $3,000 **O:** $226,000 **T:** $229,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $157,000 – Funds will be used for commonly performed O&M work.

RC: $54,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $18,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Cumulative flood damages prevented from project implementation through FY 2017 total $118 thousand. The project encompasses 608 land acres, 42 water acres with 2 miles of shoreline, and has a total reservoir storage capacity of 8.4 thousand acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $6,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fort Randall Dam, Lake Francis Case, SD

AUTHORIZATION: The Flood Control Act of 1944 (PL 78-534) and the Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: Fort Randall Dam is located twelve miles west of Wagner, South Dakota. Construction on Fort Randall Dam began in 1946 and was completed in 1956. The dam measures 10,700 feet in length and has a maximum height of 140 feet. Lake Francis Case extends 107 miles upstream, creates 540 miles of shoreline, and has a maximum depth of 140 feet at the dam. The water in Lake Francis Case is stored for flood damage reduction, power generation, navigation support, fish and wildlife, recreation, irrigation, water supply, and water quality.

FISCAL YEAR 2019 ALLOCATION: $11,859,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including mitigation of archaeological and cultural resources, archaeological and paleontological review and inspection, and replace stilling basin pumps and motors.

FISCAL YEAR 2020 ALLOCATION: $12,274,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including spillway gate fitness for service analysis and testing.

BUDGETED AMOUNT FOR FY 2021: M: $2,336,000 **O:** $9,459,000 **T:** $11,795,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $901,200, of which $901,200 is allocated for Joint activities - Funds will be used for commonly performed O&M work.

FRM: $1,234,000, of which $1,234,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including spillway gate fitness for service analysis and testing.

RC: $130,000 – Funds will be used for commonly performed O&M work.

H: $8,144,800, of which $1,662,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,375,000– Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including archeological geophysical testing, NR test and evaluation at 25 sites.

WS: $10,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities shared between business lines as follows: HYD – 44%, NAV – 24%, and FRM – 32%. Cumulative flood damages prevented, from project start through FY 2017 are $12.9 billion. Plant installed generation capacity of 320 megawatts, produced $47.0 million in power production in FY 2017. The project encompasses 115,861 land acres, 77,237 water acres with 263 miles of shoreline, and has a total reservoir storage capacity of 5.3 million acre-feet.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $181,000. There was an additional $291,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lake Traverse, SD and MN

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: The project is located on the Minnesota/South Dakota border between Browns Valley, Minnesota and Wahpeton, North Dakota. Browns Valley on the southern end of the project is the location of the continental divide where flowages split between the Gulf of Mexico to the south and Hudson Bay to the north. The project consists of two dams and appurtenant structures and provides flood control benefits downstream on the Bois de Sioux River and the Red River of the North. The lake drains through the Bois de Sioux River to the Red River of the North, and the two waters form a portion of the boundary between Minnesota and South Dakota. The Lake Traverse and Bois de Sioux River project is a flood control and water conservation reservoir which includes: a main structure consisting of a 14,500 foot earth dam and a concrete control structure at the north end of Lake Traverse near White Rock, SD; a secondary control structure at Reservation Highway near Wheaton which permits control of the upper section of the reservoir at a slightly higher elevation; a 5,000 foot embankment at the south end of Lake Traverse to protect Browns Valley; and 24 miles of channel improvement below the main dam.

FISCAL YEAR 2019 ALLOCATION: $971,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to replace the bulkhead at White Rock dam, repaint the tainter gate and machinery, lighting upgrades, installing ground source heat pump, and upgrading building insulation

FISCAL YEAR 2020 ALLOCATION: $642,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $640,000 **T:** $640,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $516,000 – Funds will be used for commonly performed O&M work.

RC: $59,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $65,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Damages prevented since construction are estimated at $4.5 billion. There are day use public access sites providing fishing and related outdoor recreation activities and the project boasts over 800 acres of wildlife management areas open for public use.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $381,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Oahe Dam and Lake Oahe, SD

AUTHORIZATION: Flood Control Act of 1944 (PL 78-534), Endangered Species Act of 1973 (PL 93-205)

LOCATION AND DESCRIPTION: The Oahe project is located seven miles north of Pierre, South Dakota. Construction on Oahe Dam began in 1948 and the project began generating electricity in 1962. The dam measures 9,300 feet in length and has a maximum height of 245 feet. The project provides benefits of flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply, and water quality.

FISCAL YEAR 2019 ALLOCATION: $14,130,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including archeological review and inspection of artifact inventories and management and curation of archaeological and cultural resources.

FISCAL YEAR 2020 ALLOCATION: $13,586,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including sewer force main protection at Stilling Basin Bridge.

BUDGETED AMOUNT FOR FY 2021: M: $2,289,000 **O:** $10,859,000 **T:** $13,148,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $1,054,100, of which $1,054,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: $1,443,200 of which $1,443,200 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $481,000 – Funds will be used for commonly performed O&M work.

H: $8,530,700, of which $1,944,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including upgrade powerhouse line 1 from GSU 1 to the switchyard.

EN: $1,624,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities shared between business lines as follows: HYD – 44%, NAV – 24%, and FRM – 32%. Cumulative flood damages prevented from project start through FY 2017 are $14.1 billion. Plant installed generation capacity of 786 megawatts, produced $71.5 million in power production in FY 2017. The project encompasses 409 thousand land acres, 365 thousand water acres with 2.2 thousand miles of shoreline, and has a total reservoir storage capacity of 23 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,713,000. There was an additional $30,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Center Hill Lake, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Center Hill Lake is located on the Caney Fork River in the Counties of DeKalb and Smith, about 80 miles east of Nashville. The project consists of a combination earthen and concrete gravity-type dam, a hydropower plant, and a flood storage reservoir with recreation and stewardship areas.

FISCAL YEAR 2019 ALLOCATION: $7,642,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary surveying and rectification, cleaning out the foundation drain holes and for a monumentation survey.

FISCAL YEAR 2020 ALLOCATION: $7,501,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary surveying, dam safety IRRM monitoring and a monumentation survey.

BUDGETED AMOUNT FOR FY 2021: M: $1,290,000 **O:** $6,475,000 **T:** $7,765,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,206,700 of which $1,206,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,571,000 – Funds will be used for commonly performed O&M work.

H: $4,528,300 of which $1,382,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including power O&M review - formal periodic assessments, inspections and reports.

EN: $415,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary surveying and rectification.

WS: $44,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The average generation for the hydropower plant is 350,000 MWH of energy annually, which is enough to supply 31,000 homes. As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 53% and FRM – 47%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,167,000. There was an additional $34,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cheatham Lock and Dam, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Cheatham Lake is a high-use waterway located at Cumberland River mile 148.6, 42 river miles downstream of Nashville, Tennessee. It is approximately 10 miles northwest of Ashland City, Tennessee. The project consists of a 110-foot by 800-foot lock, concrete gravity-type dam, hydropower plant, and recreation and stewardship areas.

FISCAL YEAR 2019 ALLOCATION: $8,250,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including cleaning out the foundation drain holes and hydropower forebay debris removal.

FISCAL YEAR 2020 ALLOCATION: $8,189,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $6,169,000 **O:** $6,533,000 **T:** $12,702,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $6,644,000 of which $1,199,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including repair miter gate, valve mechanical operating components and install bulkhead slots Cheatham Lock.

FRM: N/A

RC: $900,000 – Funds will be used for commonly performed O&M work.

H: $4,905,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replace main power plant cables from the generators to the transformers.

EN: $230,000 – Funds will be used for commonly performed O&M work.

WS: $23,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: No alternate navigation route is available. Electric utilities serving the Southeastern United States rely on coal shipped from mines in Wyoming and Kentucky thru Cheatham Lock. Approximately 3.5M tons of coal are shipped through the locks to coal-fired steam plants, providing 4.7 million megawatt-hours (MWh) of energy to the electrical grid. Nashville industries also depend heavily on bulk commodity delivery for raw materials. Coal and aggregates are dominant commodities. Shippers realize average annual transportation cost savings of more than $82 milion. The hydropower plant generates 153,000 MWh of energy annually or enough supply for 13,000 homes. As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV – 100%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $15,000. There was an additional $33,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Cordell Hull Dam and Reservoir, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Cordell Hull Dam and Reservoir is a low-use waterway with the dam located on the Cumberland River at river mile 313.5, about 12 miles north of Carthage, Tennessee. The project consists of an 84-foot by 400-foot lock, concrete gravity- and earthen-fill dam, a hydropower plant, and recreation and stewardship areas.

FISCAL YEAR 2019 ALLOCATION: $8,470,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary surveying and rectification; renovation of washhouses and comfort stations; hydropower forebay debris removal and updating a master plan.

FISCAL YEAR 2020 ALLOCATION: $7,978,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including a monumentation survey.

BUDGETED AMOUNT FOR FY 2021: M: $1,463,000 **O:** $6,520,000 **T:** $7,983,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $748,300 of which $164,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: $2,885,100 of which $1,135,100 is allocated for Joint activities– Funds will be used for commonly performed O&M work.

H: $3,959,600 of which $578,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds are also being used for specific work activities including hydropower forebay debris removal - recurring baseline costs.

EN: $374,000 – Funds will be used for commonly performed O&M work.

WS: $16,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The hydropower plant generates 363,000 megawatt-hours annually, enough for 30,000 homes. As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 31%, NAV – 9%, and REC – 60%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $12,000. There was an additional $18,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Dale Hollow Lake, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Dale Hollow Dam and Lake is located on the Obey River, approximately 5 miles east of Celina, Tennessee. The project covers portions of the Counties of Clay, Pickett and Overton in Tennessee, and the Counties of Cumberland and Clinton in Kentucky. The project consists of a concrete gravity dam, a hydropower plant, and a flood storage reservoir with recreation and stewardship areas.

FISCAL YEAR 2019 ALLOCATION: $8,223,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary monumentation and rectification, updating a Master Plan, and replacing dam and intake works power service cable trays.

FISCAL YEAR 2020 ALLOCATION: $7,579,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including boundary surveying and monumentation.

BUDGETED AMOUNT FOR FY 2021: M: $1,315,000 **O:** $6,574,000 **T:** $7,889,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $876,300 of which $876,300 is allocated for Joint activities– Funds will be used for commonly performed O&M work.

RC: $1,750,000 – Funds will be used for commonly performed O&M work.

H: $4,789,700 of which $1,181,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $436,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification.

WS: $37,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The hydropower plant generates 126,000 megawatt-hours annually, enough for 10,500 homes. As a multiple purpose project with power, the project's budget includes Joint activities, shared between business lines as follows: HYD – 57% and FRM 43%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $51,000. There was an additional $30,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: J. Percy Priest Dam and Reservoir, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: J Percy Priest Dam and Reservoir, TN is located on the Stones River, 6.8 miles above its confluence with the Cumberland River (mile 205.9) in Davidson County, TN. The project consists of a combination earthen and concrete gravity dam, a hydropower plant, and a flood storage reservoir with recreation and environmental stewardship areas.

FISCAL YEAR 2019 ALLOCATION: $5,616,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including cleaning out the foundation drains.

FISCAL YEAR 2020 ALLOCATION: $8,024,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including arc flash hazard mitigation such as replacing breakers and motor control centers and greenway trail improvements.

BUDGETED AMOUNT FOR FY 2021: M: $499,000 **O:** $5,027,000 **T:** $5,526,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $794,900 of which $794,900 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $3,077,500 of which $977,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

H: $1,102,600 of which $125,600 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including power O&M Review - Formal Periodic Assessments, Inspections and Reports.

EN: $473,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including comprehensive master plan.

WS: $78,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The hydropower plant generates 75,000 megawatt-hours of energy annually, enough to supply 6,000 homes. As a multiple purpose project with power, the project's budget includes Joint activities, shared between business lines as follows: FRM – 42%, HYD – 7%, and REC – 51%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $23,000. There was an additional $56,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Old Hickory Lock and Dam, TN

AUTHORIZATION: Section 1 of the River and Harbor Act of 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Old Hickory Lock and Dam is located in Metropolitan Nashville in Davidson County, TN. The project consists of an 84-foot by 400-foot lock, concrete gravity and earthen-fill dam, a hydropower plant, and recreation and stewardship areas.

FISCAL YEAR 2019 ALLOCATION: $11,601,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including boundary monumentation and rectification, engineering and design for upgrades to the waste water treatment plant at the Left Bank Recreation Area, and hydropower forebay debris removal.

FISCAL YEAR 2020 ALLOCATION: $15,422,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including installation of bulkhead slots for new maintenance bulkheads, a Phase 1 switchyard control rehabilitation, boundary monumentation and rectification, and maintenance for phase 2 fabrication of stop logs at Old Hickory Lock.

BUDGETED AMOUNT FOR FY 2021: M: $3,979,000 **O:** $9,372,000 **T:** $13,351,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $3,711,000 of which $861,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including standardization of handrail guidance.

FRM: N/A

RC: $1,883,000 – Funds will be used for commonly performed O&M work.

H: $6,751,000 of which $1,473,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including phase 1 69kv switchyard control rehab.

EN: $975,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary monumentation and rectification and cultural resources site monitoring and protection.

WS: $31,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Navigation through Old Hickory Lock represents the only coal fuel source for one of the Tennessee Valley Authority's major electric generating stations, Gallatin Steam Plant. The hydropower plant generates 482,000 megawatt-hours of energy annually, enough for 40,200 homes. As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 63% and NAV – 37%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $16,000. There was an additional $130,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tennessee River, TN

AUTHORIZATION: Tennessee Valley Authority Act of 1933. (P.L. 73-17)

LOCATION AND DESCRIPTION: The Tennessee River is formed by the junction of the French Broad and Holston Rivers in eastern Tennessee. The river flows through northern Alabama to the northeast boundary of Mississippi, and then across Tennessee and Kentucky before merging into the Ohio River at Paducah, Kentucky. The Tennessee River navigation system has 10 locks and 780 miles of navigable channel. There are 150 terminals (13 municipal, 15 governments and 122 private), 79 of which have railroad connections. Principal commodities are petroleum products, stone, sand, gravel, coal, coke, grain, chemicals, iron and steel.

FISCAL YEAR 2019 ALLOCATION: $27,247,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairing machinery, the lock wall repairs at Kentucky Lock; and installing new culvert valves at Pickwick Lock.

FISCAL YEAR 2020 ALLOCATION: $23,554,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including operational condition assessment inspections and installing stop log slots at Pickwick Lock.

BUDGETED AMOUNT FOR FY 2021: M: $3,881,000 **O:** $18,499,000 **T:** $22,380,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $22,380,000 – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Locks on the Tennessee River are the most economical means of bulk material transport for 780 miles of navigation channel. The average age of locks is 60 years. There is considerable river use for military and rocket booster shipments and oversized components, such as nuclear steam generators. The Tennessee Valley Authority heavily uses barge transportation to service hydroelectric, coal, steam, and nuclear plants. The Power Service shop at Muscle Shoals performs maintenance on dam and lock components for multiple U.S. Army Corps of Engineers Districts.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $591,000. There was an additional $374,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Aquilla Lake, TX

AUTHORIZATION: Flood Control Act of 1968

LOCATION AND DESCRIPTION: Aquilla Lake is located in Hill County, 0.8 miles southwest of Hillsboro, Texas. The project consists of an earth fill dam and uncontrolled concrete spillway with a total storage capacity of 146,500 acre-feet for flood control, water supply, and sediment. There is one undeveloped recreation area of 957 acres and six access areas totaling 27 acres.

FISCAL YEAR 2019 ALLOCATION: $1,129,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,237,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $334,000 **O:** $1,480,000 **T:** $1,814,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,544,000 – Funds will be used for commonly performed O&M work.

RC: $126,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $130,000 – Funds will be used for commonly performed O&M work.

WS: $14,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Aquilla Lake is estimated to have prevented $73 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $52,000. There was an additional $16,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Bardwell Lake, TX

AUTHORIZATION: P.L. 86-399 of 1960

LOCATION AND DESCRIPTION: Bardwell Lake is located in Ellis County near the City of Ennis, Texas. The project consists of an earth fill dam, an uncontrolled spillway, and a gated conduit through the dam with two sluice gates. Flood control storage capacity is 85,400 acre-feet. It also has seven recreation areas covering 1,238 acres.

FISCAL YEAR 2019 ALLOCATION: $2,066,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including installation of separate utility meters.

FISCAL YEAR 2020 ALLOCATION: $2,404,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $471,000 **O:** $2,191,000 **T:** $2,662,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,752,000 – Funds will be used for commonly performed O&M work.

RC: $620,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $276,000 – Funds will be used for commonly performed O&M work.

WS: $14,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Bardwell Lake is estimated to have prevented $58 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $378,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Belton Lake, TX

AUTHORIZATION: Flood Control Act of 1946 as modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: Belton Lake is located near the City of Belton on the Leon River in Bell and Coryell Counties of Texas. The project consists of an earth fill dam, an uncontrolled spillway, a gated outlet structure, and reservoir. The project provides flood control for 3,560 square miles of the Brazos River Basin with 644,200 acre-feet of flood control storage. Fourteen recreation areas cover 2,983 acres.

FISCAL YEAR 2019 ALLOCATION: $4,704,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including a hydraulic steel structures inspection.

FISCAL YEAR 2020 ALLOCATION: $5,758,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $640,000 **O:** $3,854,000 **T:** $4,494,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,087,000 – Funds will be used for commonly performed O&M work.

RC: $2,060,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $336,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Belton Lake is estimated to have prevented $893 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $112,000. There was an additional $44,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Benbrook Lake, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Benbrook Lake is 10 miles southwest of Fort Worth in Tarrant County, Texas. It is located on the Clear Fork of the Trinity River, 15 river miles upstream from its confluence with the West Fork of the Trinity River. This project consists of a rolled earth fill dam (9,130 feet long by 130 feet high), and an uncontrolled spillway (500 feet wide). The flood control storage capacity is 170,350 acre-feet. Benbrook Lake has six recreation areas covering 3,033 acres.

FISCAL YEAR 2019 ALLOCATION: $4,117,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including the initiation of a master plan.

FISCAL YEAR 2020 ALLOCATION: $3,381,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $808,000 **O:** $2,758,000 **T:** $3,566,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,028,000 – Funds will be used for commonly performed O&M work.

RC: $1,352,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $173,000 – Funds will be used for commonly performed O&M work.

WS: $13,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Benbrook Lake is estimated to have prevented $11 billion in cumulative flood damages since its construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $806,000. There was an additional $20,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Buffalo Bayou and Tributaries, TX

AUTHORIZATION: House Document 456, 75th Congress, 2nd Session 1938 and modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: The Buffalo Bayou and Tributaries project is located on Buffalo Bayou and Mayde Creek on the west side of the City of Houston, in Harris and Fort Bend Counties, Texas. Addicks Dam and Reservoir is an earthen dam 61,166 feet long and 48.5 feet above the Mayde Creek streambed with a storage capacity of 200,000 acre-feet. Barker Dam and Reservoir is an earthen dam 71,960 feet long and 36.5 feet above the Buffalo Bayou streambed with a storage capacity of 209,000 acre-feet. These reservoirs are designed to reduce flooding in the City of Houston.

FISCAL YEAR 2019 ALLOCATION: $3,310,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,029,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $315,000 **O:** $3,118,000 **T:** $3,433,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,433,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Both dams were screened by the National Dam Safety Cadre and were reclassified as Dam Safety Action Classification (DSAC)-1 (the highest risk category) due to their location on the west side of the City of Houston, TX and the high population at risk.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $551,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Canyon Lake, TX

AUTHORIZATION: River and Harbor Act of 1945 as modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: Canyon Lake is located in Comal County, 12 miles northwest of New Braunfels, Texas, on the Guadalupe River. The project consists of a rolled earth fill dam, an uncontrolled spillway, and one conduit controlled by two slide gates. The flood control storage is 354,600 acre-feet. Eight recreation areas cover 1,544 acres.

FISCAL YEAR 2019 ALLOCATION: $5,019,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,377,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $612,000 **O:** $3,285,000 **T:** $3,897,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,722,000 – Funds will be used for commonly performed O&M work.

RC: $1,637,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $527,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Canyon Lake is estimated to have prevented $703 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $500,000. There was an additional $285,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Denison Dam, Lake Texoma, TX and OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Denison Dam, Lake Texoma is located on the Red River at river mile 725.9, about five miles northwest of the City of Denison in Grayson County, Texas. This is a multi-purpose project authorized for flood control, water supply, hydropower, regulation of Red River flows, navigation, and recreation. The project has two 35-megawatt hydropower generator units. At the top of the power pool the lake covers 74,686 acres.

FISCAL YEAR 2019 ALLOCATION: $7,900,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $9,462,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including inspection and certification activities for load handling equipment, revision of the project shoreline management plan and to provide mitigation for the overlook restroom demolition (the building is on the National Register of Historic Places).

BUDGETED AMOUNT FOR FY 2021: M: $1,217,000 **O:** $7,266,000 **T:** $8,483,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,652,300, of which $524,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2,864,000 – Funds will be used for commonly performed O&M work.

H: $2,686,700, of which $507,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,230,000 – Funds will be used for commonly performed O&M work.

WS: $50,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: A multiple purpose project, the project's budget includes Joint activities shared between business lines as follows: FRM – 51% and HYD – 49%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $236,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Estelline Springs Experimental Project, TX

AUTHORIZATION: Flood Control Act of 1966

LOCATION AND DESCRIPTION: The Estelline Springs Experimental Project is one-half mile east of the town of Estelline in Hall County, Texas, located on the Prairie Dog Town Fork of the Red River. This is a single purpose project authorized for water quality control. The project consists of an earth ring dike nine feet high and 340 feet in diameter surrounding Estelline Springs.

FISCAL YEAR 2019 ALLOCATION: $39,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $39,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $10,000 **O:** $29,000 **T:** $39,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: N/A

H: N/A

EN: $39,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Construction of the Estelline Springs Experimental Project was completed in 1964.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ferrells Bridge Dam – Lake O' The Pines, TX

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The project is located eight miles west of Jefferson located on the Cypress Creek in the Counties of Marion, Harrison, Upshur, Morris, Camp, and Titus in Texas. This is a multipurpose project for flood control, water supply, recreation and fish and wildlife. This project consists of an earth fill embankment and two conduits. Flood control storage is 587,200 acre-feet and water supply storage is 279,900 acre-feet. Thirty-four recreation areas comprise 758 acres.

FISCAL YEAR 2019 ALLOCATION: $4,620,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,810,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $2,702,000 **O:** $2,905,000 **T:** $5,607,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,612,000 – Funds will be used for commonly performed O&M work.

RC: $3,010,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $974,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Ferrells Bridge Dam - Lake O' The Pines is estimated to have prevented $105 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $319,000. There was an additional $30,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Granger Lake, TX

AUTHORIZATION: Flood Control Acts of 1954 and 1962

LOCATION AND DESCRIPTION: Granger Lake is located on the San Gabriel River in Williamson County, about 10 miles northeast of the City of Taylor, Texas. The project consists of a rolled earth fill dam and controlled outlet works with two hydraulically-operated gates. The conservation pool impoundment is 4,400 acres, government fee land consists of 13,602 acres, and flood control storage capacity is 178.600 acre-feet. Six recreation areas comprise 1,387 acres.

FISCAL YEAR 2019 ALLOCATION: $6,747,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including installing utility meters.

FISCAL YEAR 2020 ALLOCATION: $3,226,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $458,000 **O:** $2,124,000 **T:** $2,582,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,369,000 – Funds will be used for commonly performed O&M work.

RC: $878,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $320,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Granger Lake is estimated to have prevented $105 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $703,000. There was an additional $18,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Grapevine Lake, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Grapevine Lake is near the City of Grapevine located in Denton and Tarrant Counties, 20 miles northwest of Dallas. It is at river mile 11.7 on Denton Creek in the Trinity River Basin. The project consists of a rolled earth fill dam, a 500 foot long uncontrolled concrete ogee weir spillway, and a conduit controlled by two broom-type gates. The flood storage capacity is 243,050 acre-feet and water supply storage is 158,900 acre-feet. Twelve recreation areas cover 3,660 acres.

FISCAL YEAR 2019 ALLOCATION: $5,303,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities, to include beginning the replacement of the emergency slide gates.

FISCAL YEAR 2020 ALLOCATION: $3,174,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $330,000 **O:** $2,996,000 **T:** $3,326,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,658,000 – Funds will be used for commonly performed O&M work.

RC: $1,155,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $500,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan compliance report.

WS: $13,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Grapevine Lake is estimated to have prevented $23 billion in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $999,000. There was an additional $150,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Gulf Intracoastal Waterway, TX

AUTHORIZATION: Public Law 77-675 authorized the Laguna Madre Reach, and the Water Resources Development Act of 1996 authorized the work at Aransas National Wildlife Refuge

LOCATION AND DESCRIPTION: The Texas portion of the Gulf Intracoastal Waterway (GIWW) navigation project extends from the Sabine River to Port Isabel, Texas, and includes several tributary channels. It consists of a 12-foot deep by 125-foot wide, shallow-draft channel, 423 miles long, and traverses the entire Texas Coast. The GIWW project also includes flood gates at the Brazos River and lock navigation structures at the Colorado River. Mooring basins and buoys are maintained in 11 separate locations along the length of the GIWW. The mooring basins support the heavy barge traffic.

FISCAL YEAR 2019 ALLOCATION: $30,445,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging, facility repairs at Colorado River Locks and Brazos River Flood Gates, and maintenance of existing mooring buoys.

FISCAL YEAR 2020 ALLOCATION: $39,997,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging, placement area improvements, maintenance of mooring buoys, and Mouth of the San Bernard NEPA coordination.

BUDGETED AMOUNT FOR FY 2021: M: $19,400,000 **O:** $4,800,000 **T:** $24,200,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $24,200,000 - Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Texas portion of the GIWW provides for an intermodal link between the Texas deep-draft and shallow-draft ports. This intermodal link is essential in connecting Texas ports and waterways with the petrochemical industries and refineries staggered along the Texas coast. It also provides a critical link between the Texas ports with national coastal and inland port facilities. The GIWW is ranked the third Inland Waterway in the Nation with respect to commercial tonnage.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $5,379,000. There was an additional $453,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Hords Creek Lake, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Hords Creek Lake is about 13 miles west of the City of Coleman, Texas located in the County of Coleman. This is a multipurpose project for flood control, recreation, and fish and wildlife. The project consists of an earth fill embankment and one conduit controlled by two gates. The water supply outlet is a cast iron pipe and the controlled conduit outlet has two slide gates. Flood control storage is 16,670 acre-feet and water supply storage is 5,684 acre-feet. Three recreation areas cover 1,215 acres.

FISCAL YEAR 2019 ALLOCATION: $1,878,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,535,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $286,000 **O:** $1,441,000 **T:** $1,727,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $935,000 – Funds will be used for commonly performed O&M work.

RC: $702,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $90,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Hords Creek Lake is estimated to have prevented $1 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $4,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Jim Chapman Lake, TX

AUTHORIZATION: Flood Control Act of 1954 as amended by the Flood Control Act of 1955

LOCATION AND DESCRIPTION: Jim Chapman Lake is four miles southeast of the City of Cooper in Delta and Hopkins Counties of Texas. It is located on the South Sulphur River. The project consists of an earth fill embankment, an uncontrolled spillway, and an outlet works tower. Five recreation areas cover 2,977 acres.

FISCAL YEAR 2019 ALLOCATION: $1,969,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,051,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $632,000 **O:** $1,275,000 **T:** $1,907,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,508,000 – Funds will be used for commonly performed O&M work.

RC: $118,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $268,000 – Funds will be used for commonly performed O&M work.

WS: $13,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Jim Chapman Lake is estimated to have prevented $28 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $23,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Joe Pool Lake, TX

AUTHORIZATION: River and Harbor Act of 1965

LOCATION AND DESCRIPTION: Joe Pool Lake is located in Dallas, Tarrant, and Ellis Counties of Texas, ten miles southwest of the City of Dallas. The project consists of an earth fill dam with an uncontrolled concrete spillway. Total storage capacity is 304,500 acre-feet. There are five recreation areas covering 3,730 acres.

FISCAL YEAR 2019 ALLOCATION: $2,619,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities, including the master plan report, woody vegetation removal on embankment, and initiation of the repair of the service gate.

FISCAL YEAR 2020 ALLOCATION: $1,401,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $1,023,000 **O:** $1,455,000 **T:** $2,478,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,149,000 – Funds will be used for commonly performed O&M work.

RC: $152,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $157,000 – Funds will be used for commonly performed O&M work.

WS: $20,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Joe Pool Lake is estimated to have prevented $5 billion in cumulative flood damages since construction in 1968.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $459,000. There was an additional $841,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lake Kemp, TX

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Lake Kemp is 40 miles southwest of the City of Wichita Falls in Wichita County, Texas, and located on the Wichita River at river mile 126.7. This is a multi-purpose project authorized for flood control and conservation. The project consists of a rolled earth fill embankment and spillway having a total length of 8,890 feet and a maximum height of 115 feet above the streambed. At the top of the flood control pool the lake covers 15,590 acres.

FISCAL YEAR 2019 ALLOCATION: $277,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $265,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $35,000 **O:** $315,000 **T:** $350,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $350,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The City of Wichita Falls and Wichita County Water Improvement District Number 2 jointly own Lake Kemp. District Number 2 manages the conservation storage and the United States Army Corps of Engineers manages the flood control storage.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $120,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lavon Lake, TX

AUTHORIZATION: River and Harbor Act of 1945 and the Flood Control Acts of 1946 and 1962

LOCATION AND DESCRIPTION: Lavon Lake is located in Collin County, on the East Fork of the Trinity River, about 22 miles northeast of the City of Dallas. The project consists of an earth embankment, a gate-controlled concrete spillway with 12 tainter gates, and five gate controlled conduits. Flood control storage is 291,600 acre-feet and water supply storage is 443,800 acre-feet. Nineteen recreation areas cover 2,834 acres.

FISCAL YEAR 2019 ALLOCATION: $4,292,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,876,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $616,000 **O:** $3,067,000 **T:** $3,683,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,698,000 – Funds will be used for commonly performed O&M work.

RC: $1,360,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $610,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Lavon Lake is estimated to have prevented $846 million in cumulative flood damages prevented.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $445,000. There was an additional $22,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lewisville Dam, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Lewisville Dam is 22 miles northwest of the city of Dallas in Denton County. It is located on the Elm Fork of the Trinity River, 30 river miles above its confluence with the Trinity River. The project consists of a rolled earth fill dam, 32,888 feet in length, with a 16-foot diameter flood conduit, controlled by three broom-type gates, and a 560 foot concrete spillway. Flood control storage capacity is 340,800 acre-feet and water supply storage is 598,400 acre-feet. Lewisville Dam has 25 recreation areas covering 4,014 acres.

FISCAL YEAR 2019 ALLOCATION: $7,481,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to install separate utility meters.

FISCAL YEAR 2020 ALLOCATION: $3,819,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $523,000 **O:** $3,290,000 **T:** $3,813,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,021,000 – Funds will be used for commonly performed O&M work.

RC: $1,191,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $581,000 – Funds will be used for commonly performed O&M work.

WS: $20,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Lewisville Lake is estimated to have prevented $49 billion in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,589,000. There was an additional $103,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Navarro Mills Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Navarro Mills Lake is 16 miles southwest of the City of Corsicana in Navarro County, Texas. It is located on Richland Creek in the Trinity River Basin. The project consists of an earth fill dam, a controlled spillway using six tainter gates, and two conduits controlled by slide gates. Flood storage capacity is 149,200 acre-feet. Six recreation areas cover 1,195 acres.

FISCAL YEAR 2019 ALLOCATION: $2,383,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including conducting a security risk audit.

FISCAL YEAR 2020 ALLOCATION: $2,549,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $1,745,000 **O:** $2,132,000 **T:** $3,877,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,748,000 – Funds will be used for commonly performed O&M work.

RC: $949,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $165,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Navarro Mills Lake is estimated to have prevented $116 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $38,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: North San Gabriel Dam and Lake Georgetown, TX

AUTHORIZATION: Flood Control Acts of 1954 and 1962

LOCATION AND DESCRIPTION: The North San Gabriel Dam and Georgetown Lake are 3.5 miles west of the City of Georgetown in Williamson County, Texas, and located on the North Fork of the San Gabriel River. The project consists of a rock fill dam with an impervious earthen core. The flood control outlet works include two hydraulically operated gates. Water supply storage is 29,200 acre-feet and flood control storage capacity is 93,700 acre-feet. Five recreation areas cover 1,638 acres.

FISCAL YEAR 2019 ALLOCATION: $4,189,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing deteriorating water lines and a master plan report.

FISCAL YEAR 2020 ALLOCATION: $3,477,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $472,000 **O:** $2,554,000 **T:** $3,026,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,553,000 – Funds will be used for commonly performed O&M work.

RC: $1,141,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $317,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: North San Gabriel Dam and Georgetown Lake is estimated to have prevented $23 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $220,000. There was an additional $206,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: O. C. Fisher Dam and Lake, TX

AUTHORIZATION: Flood Control Acts of 1941 and 1944

LOCATION AND DESCRIPTION: O. C. Fisher Dam and Lake is near the City of San Angelo in Tom Green County, Texas, and located on the North Concho River. The project consists of an earth fill embankment, an uncontrolled spillway, six gate-controlled intakes, and two flood control conduits. Flood control storage is 276,900 acre-feet and water supply storage is 79,500 acre-feet. Seven recreation areas cover 4,710 acres.

FISCAL YEAR 2019 ALLOCATION: $2,822,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,682,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $411,000 **O:** $1,275,000 **T:** $1,686,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,438,000 – Funds will be used for commonly performed O&M work.

RC: $74,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $163,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: O. C. Fisher Lake is estimated to have prevented $21 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $196,000. There was an additional $1,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Pat Mayse Lake, TX

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Pat Mayse Lake is 12 miles north of the City of Paris in Lamar County, Texas. It is located at river mile 4.6 on Sanders Creek, a tributary of the Red River. This is a multi-purpose project authorized for flood control, water supply, recreation, and fish and wildlife. The project consists of an 8,780 foot long rolled earth fill embankment with an uncontrolled spillway. At conservation pool depth the lake covers 5,940 acres.

FISCAL YEAR 2019 ALLOCATION: $1,383,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,091,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $15,000 **O:** $1,236,000 **T:** $1,251,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $650,000 – Funds will be used for commonly performed O&M work.

RC: $493,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $93,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Since construction in 1967, Pat Mayse Lake is estimated to have prevented $63 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $83,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Proctor Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Proctor Lake is eight miles northeast of the City of Comanche, Texas, in Comanche County on the Leon River. The project consists of an earth fill dam with a concrete spillway, controlled by eleven tainter gates and two low-flow conduits. Flood control storage is 314,800 acre-feet and water supply storage is 60,524 acre-feet. Four recreation areas cover 1,210 acres.

FISCAL YEAR 2019 ALLOCATION: $2,639,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,487,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $323,000 **O:** $2,044,000 **T:** $2,367,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,253,000 – Funds will be used for commonly performed O&M work.

RC: $943,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $160,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Proctor Lake is estimated to have prevented $118.1 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $80,000. There was an additional $5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ray Roberts Lake, TX

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Ray Roberts Lake is located in Denton, Cook, and Grayson Counties of Texas near the City of Denton. The project consists of an earth fill dam, an uncontrolled spillway, and a gated conduit through the dam with two sluice gates. Flood control storage capacity is 52,400 acre-feet. Ten recreation areas cover 3,810 acres.

FISCAL YEAR 2019 ALLOCATION: $2,150,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,700,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $207,000 **O:** $1,476,000 **T:** $1,683,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,222,000 – Funds will be used for commonly performed O&M work.

RC: $69,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $377,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work including activities including a master plan compliance report.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Ray Roberts Lake is estimated to have prevented $36 billion in flood damages since its construction.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $563,000. There was an additional $399,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Sam Rayburn Dam and Reservoir, TX

AUTHORIZATION: River and Harbor Acts of 1945 and 1948

LOCATION AND DESCRIPTION: The Sam Rayburn Dam and Reservoir project is ten miles northwest of the City of Jasper in Angelina, San Augustine, Sabine, Nacogdoches, and Jasper Counties of Texas, on the Angelina River. Features of the dam include an earthen embankment, combined concrete power intake and flood control outlet works, a labyrinth weir spillway, and two gate controlled conduits. Flood control storage capacity is 1,099,500 acre-feet, power pool storage is 1,446,500 acre-feet, and water supply storage is 43,000 acre-feet. Twenty-eight recreation areas cover 3,151 acres. The project contains two 30-megawatt hydropower generators.

FISCAL YEAR 2019 ALLOCATION: $8,488,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to repair slide on the left abutment of embankment, rehabilitate machine platforms and operators, replace communication system, and perform an energy audit.

FISCAL YEAR 2020 ALLOCATION: $7,531,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $5,126,000 **O:** $5,542,000 **T:** $10,668,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $4,605,300, of which $569,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,676,000 – Funds will be used for commonly performed O&M work.

H: $2,727,400, of which $1,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,648,300, of which $721,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 1%, FRM – 44% and ENS – 55%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $495,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Somerville Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Somerville Lake is two miles south of the City of Somerville, Texas, and located in Burleson, Lee, and Washington Counties on Yegua Creek. This is a multipurpose project for flood control, water supply, recreation and fish and wildlife. The project consists of an earth fill dam, a dike, an uncontrolled spillway, a conduit, and a gated intake. Flood control storage capacity is 347,400 acre-feet and water supply storage is 158,900 acre-feet. Eleven recreation areas cover 3,599 acres.

FISCAL YEAR 2019 ALLOCATION: $4,855,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,984,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $554,000 **O:** $2,984,000 **T:** $3,538,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,678,000 – Funds will be used for commonly performed O&M work.

RC: $1,458,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $391,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan compliance report.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Somerville Lake is estimated to have prevented $295 million in cumulative flood damages since its construction in 1967.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $92,000. There was an additional $8,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Stillhouse Hollow Dam, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Stillhouse Hollow Lake is five miles southwest of the City of Belton in Bell County, Texas, and located on the Lampasas River, 16 river miles upstream from its confluence with the Little River. The project consists of an earth fill dam, a dike section, and an uncontrolled spillway. Controlled flood releases are accomplished through two hydraulically-operated floodgates. Flood control storage capacity is 394,700 acre-feet and water supply storage is 232,000 acre-feet. Seven recreation areas cover 2,089 acres.

FISCAL YEAR 2019 ALLOCATION: $6,555,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $4,866,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $515,000 **O:** $2,976,000 **T:** $3,491,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,829,000 – Funds will be used for commonly performed O&M work.

RC: $1,090,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $561,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Stillhouse Hollow Lake is estimated to have prevented $192 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $477,000. There was an additional $2,135,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Town Bluff Dam, B.A. Steinhagen Lake and Robert Douglas Willis Hydropower Project, TX

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: Town Bluff Dam, B. A. Steinhagen Lake and the Robert Douglas Willis Hydropower Project are located in Tyler and Jasper Counties, on the Neches River, one-half mile from the City of Town Bluff, Texas. The project consists of an earth fill, concrete-capped embankment that serves as an uncontrolled spillway. The outlet works are controlled by six tainter gates. The lake has ten recreation areas covering 2,185 acres and two 3.7-megawatt hydropower generators.

FISCAL YEAR 2019 ALLOCATION: $7,911,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including embankment repairs, repair cracks in spillway and outlet works, and repairs to discharge channel of spillway.

FISCAL YEAR 2020 ALLOCATION: $4,926,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $1,046,000 **O:** $2,921,000 **T:** $3,967,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,903,000 – Funds will be used for commonly performed O&M work.

RC: $608,000 – Funds will be used for commonly performed O&M work.

H: $1,082,000 – Funds will be used for commonly performed O&M work.

EN: $374,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The Town Bluff Dam and BA Steinhagen Lake project is estimated to have prevented $357 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $350,000. There was an additional $131,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Waco Lake, TX

AUTHORIZATION: Flood Control Act of 1954

LOCATION AND DESCRIPTION: Waco Lake is two miles west of Waco, Texas, and located in McLennan County on the Bosque River, 4.6 miles above its confluence with the Brazos River. The project consists of a rolled, earth fill dam and a spillway controlled by fourteen tainter gates. One 20-foot diameter conduit in outlet works is controlled by three broome-type tractor sluice gates. Flood control storage capacity is 573,300 acre-feet and water supply storage is 135,700 acre-feet. Eleven recreation areas cover 3,599 acres.

FISCAL YEAR 2019 ALLOCATION: $5,612,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,570,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $1,966,000 **O:** $2,848,000 **T:** $4,814,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,487,000 – Funds will be used for commonly performed O&M work.

RC: $1,550,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $766,000 – Funds will be used for commonly performed O&M work.

WS: $11,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Waco Lake is estimated to have prevented $495 million in cumulative flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $264,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Wallisville Lake, TX

AUTHORIZATION: River and Harbor Acts of 1945, 1946, and 1962 and the Supplemental Appropriations Act of 1983 (P.L. 98-63)

LOCATION AND DESCRIPTION: The Wallisville Lake project is a multi-purpose project on the Trinity River built to prevent salinity intrusion and provide water supply, recreation, navigation, and fish and wildlife enhancements. The project includes eight miles of earthen dam, an overflow spillway with a tainter gate assembly, and an 84-by-600-foot navigation lock with a sill depth of 16 feet for commerce and pleasure craft use.

FISCAL YEAR 2019 ALLOCATION: $2,210,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $2,765,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $90,000 **O:** $2,515,000 **T:** $2,605,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,605,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: N/A

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $263,000. There was an additional $1,256,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Whitney Lake, TX

AUTHORIZATION: Flood Control Acts of 1941 and 1944

LOCATION AND DESCRIPTION: Whitney Lake is 5.5 miles southwest of the City of Whitney and 35 miles upstream from the city of Waco, Texas. It is located in Hill, Bosque, and Johnson Counties at river-mile 442 on the Brazos River. The project consists of a concrete gravity, earth fill dam, and a spillway that is controlled by seventeen tainter gates. The 23,560 acre lake has a flood storage capacity of 1,372,400 acre-feet and water supply storage is 248,100 acre-feet. The project has thirty-four recreation areas totaling 5,394 acres. The project contains two 17-megawatt hydropower generators.

FISCAL YEAR 2019 ALLOCATION: $10,450,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $7,296,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $1,517,000 **O:** $5,296,000 **T:** $6,813,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,697,100, of which $398,100 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2,219,000 – Funds will be used for commonly performed O&M work.

H: $2,190,400, of which $128,400 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $691,500, of which $51,500 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD – 22%, FRM – 69%, and ENS – 9%. Whitney Lake is estimated to have prevented $1.1 billion in cumulative flood damages since its construction in 1950. Hydropower generation in FY 2019 totaled 155,612 megawatts.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $699,000. There was an additional $5,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Wright Patman Dam and Lake, TX

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Wright Patman Dam and Lake is nine miles southwest of the City of Texarkana and located in Cass and Bowie Counties on the Sulphur River. The project consists of an earth fill dam, an uncontrolled spillway, two conduits, and four gates. Flood control storage is 2,329,100 acre-feet and water supply storage is 321,900 acre-feet. A total of 23 recreation areas cover 3,243 acres.

FISCAL YEAR 2019 ALLOCATION: $5,615,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $4,595,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $1,336,000 **O:** $2,887,000 **T:** $4,223,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $2,109,000 – Funds will be used for commonly performed O&M work.

RC: $1,225,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $874,000 – Funds will be used for commonly performed O&M work.

WS: $15,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: None.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $212,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ball Mountain Lake, VT

AUTHORIZATION: Authorized by the Flood Control Acts of 1944 and 1954. Fish passage facility was authorized by Section 872 of Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: Ball Mountain Dam is located along the West River, 29 miles above its junction with the Connecticut River in Brattleboro, Vermont. Dam is located about two miles north of Jamaica, Vermont and is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. Project consists of an earth-filled dam with rock slope protection, 915-feet long with a maximum height of 265 feet; an uncontrolled ogee weir spillway, 235-feet wide with a maximum discharge capacity of 150,000 cubic-feet-per-second; and a 13.5-foot diameter outlet conduit with 3 control gates. The reservoir provides 54,690 acre-feet of flood storage capacity to control runoff from its 172 square miles of drainage area.

FISCAL YEAR 2019 ALLOCATION: $1,420,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to replace the thrust nut cover on flood control gate #2, design vehicular access to the toe of dam, perform an inspection of the inlet structure, conduct a wetlands survey and conduct a threatened and endangered species survey.

FISCAL YEAR 2020 ALLOCATION: $2,244,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairs to Gates 2 and 3, repair floatwell inlet pipe, replace service conductor, design a downstream monitoring weir system and develop an inspection checklist for critical items for use in the emergency action plan.

BUDGETED AMOUNT FOR FY 2021: **M:** $20,000 **O:** $852,000 **T:** $872,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $672,000 – Funds will be used for commonly performed O&M work.

RC: $118,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $82,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including invasive species survey.

WS: N/A

OTHER INFORMATION: The project has prevented an estimated $334.5 million in flood damages since placed in service in 1961.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $248,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: North Hartland Lake, VT

AUTHORIZATION: The Flood Control Acts of 1938 and 1941

LOCATION AND DESCRIPTION: North Hartland Lake is located along the Ottauquechee River, 1.5 miles above its junction with Connecticut River, and one-mile northwest of North Hartland, Vermont. North Hartland Lake is operated as part of a system of flood control projects within the Connecticut River Basin. The project consists of an earth- and rock-filled dam with rock slope protection, 1,640-feet long with a maximum height of 185 feet; an earth- and rock-filled dike 2,110-feet long with a maximum height of 52 feet; an uncontrolled ogee weir spillway, 465-feet wide with a maximum discharge capacity of 160,900-cubic feet-per-second; a 14.25-foot diameter horseshoe shaped outlet conduit with four control gates through the dam: and a 36-inch diameter outlet conduit with a control gate through the dike. The reservoir provides flood storage of 74,150 acre-feet to control runoff from its drainage area of 220 square miles.

FISCAL YEAR 2019 ALLOCATION: $1,014,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including hydraulic steel inspection, evaluate conditions of Dewey Mills Dam, replace log boom logs, and replace office septic system.

FISCAL YEAR 2020 ALLOCATION: $1,002,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including paving road to office and dam.

BUDGETED AMOUNT FOR FY 2021: **M:** $113,000 **O:** $875,000 **T:** $988,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $731,000 – Funds will be used for commonly performed O&M work.

RC: $119,000 - Funds will be used for commonly performed O&M work.

H: N/A

EN: $138,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $310.1 million in flood damages since placed in service in 1961.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $133,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: North Springfield Lake, VT

AUTHORIZATION: The Flood Control Acts of 1938 and 1941

LOCATION AND DESCRIPTION: North Springfield Lake is in the Springfield, Vermont, along the Black River, 8.7 miles above its junction with the Connecticut River. North Springfield Lake is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of two earth- and rock-filled dams with rock slope protection. The main dam is 2,940-feet long with a maximum height of 120 feet and has an uncontrolled side channel spillway with an ogee weir, 384-feet wide with a maximum discharge capacity of 117,200-cubic feet-per-second, and a 12.75-foot diameter horseshoe shaped outlet conduit with three control gates. The north branch dam is 900-feet long with a maximum height of 75 feet and has an uncontrolled broad crested spillway weir, 200-feet wide with a maximum discharge capacity of 1,600-cubic feet-per-second, and an 8-inch diameter outlet conduit. The reservoir provides flood storage capacity of 51,100 acre-feet to control runoff from its drainage area of 158-square miles.

FISCAL YEAR 2019 ALLOCATION: $732,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,337,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to clear right abutment area, construct seepage collection and monitoring weir, replace gatehouse power feed conduit, prepare interim risk reduction measures plan, overhead crane repairs, replace gatehouse roof, repack hydraulic gate cylinders and install fall protection handrail gatehouse roof.

BUDGETED AMOUNT FOR FY 2021: **M:** $145,000 **O:** $817,000 **T:** $962,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $807,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including conduit inspection, paint interior of gatehouse and repair fences and gates.

RC: $69,000 - Funds will be used for commonly performed O&M work.

H: N/A

EN: $86,000 - Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $298.0 million in flood damages since placed in service in 1960.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $44,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Townshend Lake, VT

AUTHORIZATION: The Flood Control Acts of 1944 and 1954. The fish passage facility was authorized by the Water Resources Development Act of 1986.

LOCATION AND DESCRIPTION: Townshend Lake is along the West River, 19.1 miles above its junction with the Connecticut River in Brattleboro, Vermont, and two miles west of Townshend, Vermont. The reservoir is operated as part of a system of flood control projects within the Connecticut River Basin. The project consists of an earth-filled dam with a spillway and outlet conduit.

FISCAL YEAR 2019 ALLOCATION: $1,493,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including to paint spillway bridge, repair guardrails, install solar array, automate v-notch weirs, conduct bathymetric sediment survey and conduct a wetland survey.

FISCAL YEAR 2020 ALLOCATION: $984,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including bridge inspections and to investigate causes of settlement of the rockfill at the left outlet wing wall.

BUDGETED AMOUNT FOR FY 2021: **M:** $149,000 **O:** $819,000 **T:** $968,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $782,000 **–** Funds will be used for commonly performed O&M work.

RC: $92,000 **–** Funds will be used for commonly performed O&M work.

H: N/A

EN: $94,000 **–** Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $241.6 million in flood damages since placed in service in 1961. The reservoir provides a flood storage capacity of 33.7 thousand acre-feet to control runoff from its net drainage area of 106 square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $121,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Union Village Dam, VT

AUTHORIZATION: The Flood Control Acts of 1936 and 1938

LOCATION AND DESCRIPTION: Union Village Dam is on the Ompompanoosuc River, about 4 miles upstream from its junction with the Connecticut River. The dam lies about one-fourth mile north of Union Village, Vermont, and 11 miles north of White River Junction, Vermont. Union Village Dam is operated as part of a comprehensive system of flood control projects within the Connecticut River Basin. The project consists of an earth- and rock-filled dam, 1,100-feet long with a maximum height of 170 feet; an uncontrolled ogee weir spillway, 388-feet wide with a maximum discharge capacity of 84,900-cubic feet-per-second; and a 13-foot diameter outlet conduit with two control gates.

FISCAL YEAR 2019 ALLOCATION: $901,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing the motor control center and renovating the park ranger office.

FISCAL YEAR 2020 ALLOCATION: $982,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including overhead crane access, replace gatehouse furnace and purchase of flowage easement.

BUDGETED AMOUNT FOR FY 2021: **M:** $113,000 **O:** $742,000 **T:** $855,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $711,000 – Funds will be used for commonly performed O&M work.

RC: $71,000 - **–** Funds will be used for commonly performed O&M work.

H: N/A

EN: $73,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $144.8 million in flood damages since being placed in service in 1950. The reservoir provides a flood storage capacity of 38.4 thousand acre-feet to control runoff from its net drainage area of 126-square miles.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $166,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Atlantic Intracoastal Waterway – Albemarle and Chesapeake Canal Route, VA

AUTHORIZATION: River and Harbor Act of 1899 and modified by Acts of 1912, 1925, 1930, 1934 and 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: The Albemarle and Chesapeake Canal (ACC), on the Atlantic Intracoastal Waterway (AIWW), is a naturally protected navigation route that generally parallels the Atlantic Ocean between the Southern Branch of the Elizabeth River and the Virginia-North Carolina state line in the North Landing River, a distance of 27 miles. This project provides for a channel 12 feet deep with widths of 90 feet in land cuts and from 125 to 250 feet in rivers. The project is a shallow draft waterway.

FISCAL YEAR 2019 ALLOCATION: $3,518,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repair and replacement of one set of valves to the Great Bridge Lock on the Atlantic Intracoastal Waterway.

FISCAL YEAR 2020 ALLOCATION: $2,862,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $685,000 **O:** $0 **T:** $685,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $685,000 **–** Funds will be used for commonly performed O&M work.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The Albemarle and Chesapeake Canal segment is particularly critical to the U.S. Navy which transports over 55 million gallons of jet fuel yearly from the Craney Island Fuel Depot in Portsmouth, Virginia to the Oceana Naval Air Station in Virginia Beach, Virginia. This waterway segment is part of the Atlantic Intracoastal Waterway connecting Norfolk, Virginia with the St. Johns River, Florida. Commercial and recreation vessels travel the waterway.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $185,000. There was an additional $891,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Atlantic Intracoastal Waterway – Dismal Swamp Canal Route, VA

AUTHORIZATION: River and Harbor Act of 1899 and modified by Acts of 1912 (P.L. 61-425), 1925 (P.L. 68-585), 1930 (P.L. 71-520), 1934 and 1945 (P.L. 79-14).

LOCATION AND DESCRIPTION: The Dismal Swamp Canal (DSC), on the Atlantic Intracoastal Waterway (AIWW), is a naturally protected navigation route that generally parallels the Atlantic coast between Norfolk, Virginia and the Pasquotank River in North Carolina. The canal is the oldest operating artificial waterway in the United States. The authorized depth of the canal is 10 feet; however, the project is currently maintained at a minimum depth of 6 feet. The project also consists of one highway drawbridge and navigation lock at Deep Creek, Virginia, one highway drawbridge and navigation lock at South Mills, North Carolina and three water control structures. The project is a shallow draft waterway.

FISCAL YEAR 2019 ALLOCATION: $1,868,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operations and maintenance (O&M) work. Funds were also used for specific work activities including repair of the historical lock superintendent's house located on Route 17 of the Dismal Swamp Canal.

FISCAL YEAR 2020 ALLOCATION: $949,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $197,000 **O:** $1,065,000 **T:** $1,262,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $557,000 – Funds will be used for commonly performed O&M work.

FRM: $705,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The DSC provides navigation needs for vessels to travel the protected waterways of the AIWW in lieu of traveling through the Currituck Sound. The water control structures are manned in conjunction with the locks and bridges to control the water levels in Lake Drummond as required by Public Law 93-402. The DSC was placed on the National Register of Historical Places and registered as an ASCE Landmark in 1988 and in 2004 was included in the National Park Service's Underground Railroad Network to Freedom Program.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $638,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Gathright Dam and Lake Moomaw, VA

AUTHORIZATION: Flood Control Act of 1964

LOCATION AND DESCRIPTION: Gathright Dam and Lake Moomaw project is 43 miles above the confluence of the Jackson River with the James River, and 17 miles upstream of Covington, Virginia. The project is operated to reduce flood damages at downstream locations, augment low-flow conditions, and provide for water-based recreation. The project is part of the overall strategy for water control and flood risk reduction within the James River Basin.

FISCAL YEAR 2019 ALLOCATION: $3,572,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including inspection and repairs of service and emergency gates.

FISCAL YEAR 2020 ALLOCATION: $2,936,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including to replace the motor control centers in the Intake Tower.

BUDGETED AMOUNT FOR FY 2021: M: $0 **O:** $3,018,000 **T:** $3,018,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,018,000 **–** Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Project has prevented an estimated $310 million in flood damages since completion in 1982. The project provides improved water quality through low flow augmentation and enables the selective withdrawal of water at temperatures that provide a habitat suitable for a cold-water fishery in the Jackson River. The project also provides water-based recreation. Recreation services are provided at sites operated by the U.S. Forest Service.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,825,000. There was an additional $42,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: John H. Kerr Lake, VA and NC

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Roanoke River, about 180 river miles above its mouth, in Mecklenburg County, Virginia and Vance County, North Carolina and provides flood risk management, recreation, hydropower, water supply and fish and wildlife conservation. The project includes a concrete gravity dam with wing and saddle dikes on the right and left banks, with a total length of over 4 miles. The reservoir is operated as a unit of a coordinated system of reservoirs in the Roanoke River basin. The project has an installed hydroelectric generating capacity of 268,000 kilowatts.

FISCAL YEAR 2019 ALLOCATION: $12,872,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including development of plans and specifications for Island Creek transformer, development of Plans and Specifications to install an emergency outlet gate at Island Creek Pumping Station, Overhaul Floating Bulkhead Stop Log, Dam Safety maintenance flushing, and installing a circuit switch, repair of historic sites, cultural resources surveys, development of Historic properties plan, and review and update yield from water supply storage.

FISCAL YEAR 2020 ALLOCATION: $11,478,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including operational condition assessment, Vehicle Bridge Inspection, and periodic assessment and inspection and report for Island Creek Dam.

BUDGETED AMOUNT FOR FY 2021: M: $3,743,000 **O:** $7,130,000 **T:** $10,873,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $819,200 of which $347,200 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $2, 514,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities to including replacement of all security lights in park.

H: $6,124,800 of which $1,463,800 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $1,391,000 – Funds will be used for commonly performed O&M work.

WS: $24,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD - 81% and FRM - 19%.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $4,364,000. There was an additional $1,576,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: John W. Flannagan Dam and Reservoir, VA

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: John W. Flannagan Dam and Reservoir is located in Dickenson County, VA and situated on the Pound River, a tributary of the Russell Fork of the Levisa Fork of the Big Sandy River. It is 1.8 miles above the mouth of the Pound River and 150.0 miles above the mouth of the Big Sandy River. The project includes operation and maintenance (O&M) of John W. Flannagan Dam and Reservoir. The lake is impounded by a rock-fill dam with a central impervious core. The dam has a maximum height of 250 feet and a top length of 916 feet. The dam was completed in 1964.

FISCAL YEAR 2019 ALLOCATION: $3,232,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including rewiring intake, installing a new Motor Control Panel and replacing sluice gates.

FISCAL YEAR 2020 ALLOCATION: $2,409,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M activities. Funds are also being used for specific work activities including a master plan update.

BUDGETED AMOUNT FOR FY 2021: M: $655,000 **O:** $1,868,000 **T:** $2,523,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,615,000 – Funds will be used for commonly performed O&M work.

RC: $665,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $205,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities for completion of phase 2 master plan.

WS: $38,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project has prevented over $504,700,000 in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $227,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $100,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: North Fork of Pound River Lake, VA

AUTHORIZATION: Section 203 of Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: North Fork of Pound River Lake is located in Wise County, VA on the North Fork of the Pound River. The Pound River is a tributary of the Russell Fork of the Levisa Fork of the Big Sandy River, 1.1 miles above the mouth of North Fork of Pound River and 184 miles above the mouth of the Big Sandy River. The lake is impounded by a rock-fill dam with central impervious core at a height of 122 feet and length of 600 feet. The dam was completed in 1966.

FISCAL YEAR 2019 ALLOCATION: $828,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) activities. Funds were also used for specific work activities including replacing the elevator control panel, replacing the emergency generator, and replacing or rebuilding the multi-level withdrawal gate hydraulic components.

FISCAL YEAR 2020 ALLOCATION: $757,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M activities. Funds are also being used for specific work activities including a master plan update.

BUDGETED AMOUNT FOR FY 2021: M: $211,000 **O:** $753,000 **T:** $964,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $811,000 – Funds will be used for commonly performed O&M work.

RC: $10,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $110,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities for phase 2 master plan.

WS: $33,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project has prevented over $33,100,000 in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $77,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $5,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Philpott Lake, VA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Smith River about 45 miles above its junction with the Dan River in Franklin and Henry Counties, Virginia and provides flood risk management, recreation, hydropower and other benefits to the public. The project includes a concrete gravity dam about 900 feet long with a maximum height of 220 feet above the streambed. The reservoir is operated as a unit of a coordinated system of reservoirs in the Roanoke River basin. The project has an installed hydroelectric generating capacity of 14,000 kilowatts.

FISCAL YEAR 2019 ALLOCATION: $5,525,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including reallocation study for water supply, installing crack gauges in the spillway gallery and stairwells, performing critical dam safety inspection of the service and emergency gates and stop logs, establishing control and monitoring program, performing cultural resources management plan, revising Emergency Action Plan and Water Control manual, and cost savings measures to replace waterline at Philpott Park.

FISCAL YEAR 2020 ALLOCATION: $5,449,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are being used for specific work activities including surveys for master plan update and a water reallocation study.

BUDGETED AMOUNT FOR FY 2021: M: $1,082,000 **O:** $3,934,000 **T:** $5,016,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $599,300 of which $599,300 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

RC: $1,555,000 – Funds will be used for commonly performed O&M work.

H: $2,123,700 of which $484,700 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

EN: $248,000 – Funds will be used for commonly performed O&M work.

WS: $490,000 – Funds will be used for specific work activities including a water reallocation study.

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: HYD - 45% and FRM - 55%. The dam is currently rated as a Dam Safety Action Classification 3 structure. Flood damages prevented during FY 2018 were over $49 million with a cumulative total of damages prevented to date were $1.068 million.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $969,000. There was an additional $18,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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WASHINGTON

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Chief Joseph Dam, WA

AUTHORIZATION: Rivers and Harbor Act of 1946 as modified by the Fish and Wildlife Coordination Act of 1958.

LOCATION AND DESCRIPTION: Chief Joseph Dam is located in Bridgeport, Washington, 545 river-miles above the mouth of the Columbia River, and 51 river-miles downstream from Grand Coulee Dam. The dam consists of a 19-bay, gated, concrete, gravity spillway that abuts the right bank and connects to a curved non-overflow concrete section founded on a rock outcropping. The 2,047-foot-long powerhouse encloses 27 Francis turbines with the greatest installed capacity in the USACE of 2,614 megawatts, two station service generators, maintenance shops and control room, and the visitor center.

FISCAL YEAR 2019 ALLOCATION: $514,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $627,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $115,000 **O:** $491,000 **T:** $606,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $606,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Chief Joseph Dam is the Corps' largest hydropower project. It supports 12 recreation areas that include a boat-in campground, fishing docks, boat ramps, picnicking, playgrounds, a splash park, trails, and interpretation center. This also includes a project visitor center with displays, restrooms, a theater, and tours in the powerhouse behind the security perimeter.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $127,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Howard A. Hanson Dam, WA

AUTHORIZATION: Rivers and Harbors Act and Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: The project is 35 miles east of Tacoma in King County, Washington and located on the upper reach of the Green-Duwamish River, 64 river miles above the mouth. It is in the City of Tacoma's municipal watershed, which is protected from public access.

FISCAL YEAR 2019 ALLOCATION: $13,164,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including construction of a new crane pad, archaeological survey and rehabilitation of the spillway gates.

FISCAL YEAR 2020 ALLOCATION: $4,304,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including inspection of the Stilling Basin.

BUDGETED AMOUNT FOR FY 2021: M: $641,000 **O:** $3,318,000 **T:** $3,959,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,823,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a dam safety inspection.

RC: N/A

H: N/A

EN: $136,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The facility provides flood protection within the Green-Duwamish watershed with an estimated $21.4 billion in prevented flood damages since 1962. The Biological Opinion and the Endangered Species Act mandate the construction and annual maintenance of mitigation sites consisting of gravel and woody debris nourishment to the river below the dam.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,821,000. There was an additional $10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ice Harbor Lock and Dam, WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 12 miles east of Pasco, Washington. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 603 Megawatts, a navigation lock with a vertical lift of 100 feet, moderate-use waterway, two fish ladders, reservoir that has a water surface area of 9,200 acres, 3,576 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish bypass facility.

FISCAL YEAR 2019 ALLOCATION: $4,957,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $7,018,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including downstream gate sheave repair, floating guidewall repair, initiate the master plan update and convert Charbonneu Group Camp into Volunteer Village.

BUDGETED AMOUNT FOR FY 2021: M: $1,679,000 **O:** $2,948,000 **T:** $4,627,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $3,352,000, of which $1,394,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: $1,044,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $231,000 – Funds will be used for commonly performed O&M work. Funds will also be used for a specific work activity including completion of the master plan update.

WS: N/A

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities shared between business lines as follows: NAV – 100%. Traffic through the navigation lock consists of grain, petroleum products, fertilizer, wood products and miscellaneous cargo. There are 3.5 thousand acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $428,000. There was an additional $6,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lake Washington Ship Canal, WA 2/

AUTHORIZATION: River and Harbor Act of 1910, House Document 953, 60th Congress

LOCATION AND DESCRIPTION: Located in the City of Seattle, King County, Washington, the 30-foot deep canal connects Puget Sound on the west with Lake Washington eight miles to the east. A dam, a gated spillway, a fish ladder and two navigational locks are located one and one-half miles east of the west entrance. The canal and locks provide a deep-draft navigation link from the freshwater Lake Washington and Lake Union to the saltwater Puget Sound.

FISCAL YEAR 2019 ALLOCATION: $1,068,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,247,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including updating master plans.

BUDGETED AMOUNT FOR FY 2021: M: $89,000 **O:** $1,168,000 **T:** $1,257,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

FRM: N/A

RC: $728,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $529,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including updating the master plans.

WS: N/A

OTHER INFORMATION: The recreation area of the Lake Washington Ship Canal project supports three public use areas that includes the Corps' only botanical garden, a fish ladder, two salt-freshwater locks, waterside pedestrian trails and a water trail, interpretation, and a regional visitor center. The project stabilized the elevation of Lake Washington within a narrow range, allowing for the construction of floating bridges (Interstate 90 and State Route 520) across the lake to connect Seattle with its burgeoning eastern suburbs.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $116,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

2/ The amounts and descriptions on this justification sheet reflect only the activities for this project funded from the Operation and Maintenance account. Corresponding project activities funded from the Harbor Maintenance Trust Fund are listed on a separate justification sheet.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Little Goose Lock and Dam, WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 50 miles west of Lewiston, Idaho. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 98 feet, moderate-use waterway, two fish ladders, a reservoir that has a water surface area of 10,025 acres, 5,398 acres of land that provides recreation facilities and wildlife mitigation habitat, and juvenile fish holding, loading and bypass facilities.

FISCAL YEAR 2019 ALLOCATION: $3,271,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including design of the preferred alternative to restore the north shore fish ladder jetty and design of the replacement of the adult fish collection channel sluice gates

FISCAL YEAR 2020 ALLOCATION: $4,478,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including Navlock upper sill and monolith 4 waterstop repair, an update to the master plan, and NEPA compliance for dredging recreation boat basins.

BUDGETED AMOUNT FOR FY 2021: M: $1,465,000 **O:** $1,222,000 **T:** $2,687,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $2,275,000, of which $495,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: $360,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $52,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities shared between business lines as follows: NAV – 100%. Traffic through the navigation lock consists of grain, petroleum products, fertilizer, and wood products. There are 5 thousand acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $560,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lower Granite Lock and Dam, WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 33 miles west of Lewiston, Idaho. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 100 feet, moderate-use waterway, one fish ladder, a system of levees and pumping plants, a reservoir that has a water surface area of 8,900 acres, 5,778 acres of land that provides recreation facilities and wildlife mitigation habitat, and juvenile fish holding, loading, and bypass facilities, and adult-fish trapping facilities.

FISCAL YEAR 2019 ALLOCATION: $4,303,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including the purchase of a fish transport truck and 1,000 gallon tank and a fish transportation tractor and 3,500 gallon tanker trailer.

FISCAL YEAR 2020 ALLOCATION: $3,369,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including NEPA compliance for dredging recreation boat basins.

BUDGETED AMOUNT FOR FY 2021: M: $1,553,000 **O:** $1,905,000 **T:** $3,458,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $2,041,000, of which $92,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: $1,402,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $15,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities shared between business lines as follows: NAV – 100%. Traffic through the navigation lock consists of grain, petroleum products, fertilizer, and wood products. There are 13 thousand acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,256,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Lower Monumental Lock and Dam, WA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 (P.L. 79-14)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 45 miles northeast of Pasco, Washington. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 98 feet, moderate-use waterway, two fish ladders, and a reservoir that has a water surface area of 6,590 acres, 8,336 acres of land that provides recreation facilities and wildlife mitigation habitat, and juvenile fish holding, loading, and bypass facilities.

FISCAL YEAR 2019 ALLOCATION: $3,721,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacement of a failed diffuser grating in North Fish Ladder, conducting an upstream gate reliability analysis and an update to the master plan.

FISCAL YEAR 2020 ALLOCATION: $2,940,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including completing the master plan update and NEPA compliance for dredging recreation boat basins.

BUDGETED AMOUNT FOR FY 2021: M: $1,549,000 **O:** $1,220,000 **T:** $2,769,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $2,250,000, of which $470,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: $466,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $53,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: As a multiple purpose with power project, the project's budget includes Joint activities shared between business lines as follows: NAV – 100%. There are 8 thousand acres of land that are utilized for public recreation purposes, wildlife habitat, wildlife mitigation and water connected industrial development.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $948,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mill Creek Lake, WA

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on Mill Creek, River Mile 11.5, east of Walla Walla, Washington. The project was constructed to prevent flooding of the City of Walla Walla. The project includes the dam, a reservoir that has a gross storage capacity of 8,300 acre-feet of water, a flood control channel, 612 acres of land that provides recreation facilities and wildlife mitigation habitat, and a diversion dam and levee with two fish ladders.

FISCAL YEAR 2019 ALLOCATION: $6,171,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacement of bridge corbels at the division works, construction of interior features for the new maintenance building, intake canal and diversion dam diffuser block repairs, diversion dam grouted riprap scour repairs, replace safety rails over division works, and repair and paving of Reservoir Road.

FISCAL YEAR 2020 ALLOCATION: $2,719,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including diversion dam low flow radial arm gate repairs.

BUDGETED AMOUNT FOR FY 2021: M: $672,000 **O:** $1,573,000 **T:** $2,245,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,564,000 – Funds will be used for commonly performed O&M work.

RC: $396,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $285,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project consists of two main units, the Mill Creek Channel and Bennington Lake, and the off-channel reservoir and associated federal lands. The project provides for flood damage reduction, recreation, wildlife habitat and irrigation. Since 1942, more than $74.5 million in potential flood damages have been prevented by Mill Creek Project's combined storage and channel operations.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,840,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mount St. Helens Sediment Control, WA

AUTHORIZATION: Supplemental Appropriation Act of 1985 (P.L. 99-88)

LOCATION AND DESCRIPTION: The sediment retention structure is 36-miles east of Longview, WA and located on the North Fork Toutle River, a tributary of the Cowlitz River in Cowlitz County. The project consists of a sediment retention structure designed to decrease sediment transport to the Cowlitz and Columbia Rivers and reduce the risk of flooding.

FISCAL YEAR 2019 ALLOCATION: $266,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $263,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $73,000 **O:** $300,000 **T:** $373,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $373,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including stability evaluation of embankment retaining wall.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project's authorized purpose is to provide a permanent solution to potential flooding on the Cowlitz River caused by sedimentation resulting from the eruption of Mount St. Helens.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Mud Mountain Dam, WA

AUTHORIZATION: Section 5 of the Flood Control Act of 1936 (P.L. 74-738)

LOCATION AND DESCRIPTION: The project is six miles southeast of Enumclaw, Washington and 38 miles east of Tacoma, Washington and located on the White River at river mile 30. The facility provides flood protection within the White River and lower Puyallup River watershed. When the original flood control project was built in 1948, an upstream fish trap and haul facility was constructed at the Buckley Barrier Structure, six miles downstream of the dam to facilitate migration. The facility is still used annually to capture salmonids for transportation upstream to a release site five miles above the dam.

FISCAL YEAR 2019 ALLOCATION: $6,190,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including design to improve Cascade Creek slope stability, boundary and flowage easement inspections and continued construction oversight of the 9ft tunnel liner replacement.

FISCAL YEAR 2020 ALLOCATION: $6,481,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including hydraulic cylinder rehabilitation, an easement inspection, updating master plans, and continued construction oversight of the 9ft tunnel liner replacement.

BUDGETED AMOUNT FOR FY 2021: M: $1,469,000 **O:** $4,350,000 **T:** $5,819,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $5,255,000 – Funds will be used for commonly performed O&M work.

RC: $281,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $283,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including boundary surveys.

WS: N/A

OTHER INFORMATION: The Mud Mountain Dam project is a convenient stop-point along the Mt. Rainier Scenic Loop. It supports three recreation day use areas that include the Corps' only kid's swimming pool, picnicking, playgrounds, trails, viewing areas, and interpretation. The dam provides flood protection within the White River watershed with an estimated $3.1 billion in flood damages prevented since 1948. During the peak flood season, the dam provides up to 106 thousand acre-feet of flood storage.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $545,000. There was an additional $4,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Stillaguamish River, WA

AUTHORIZATION: The Flood Control Act of 1936 (P.L. 74-738)

LOCATION AND DESCRIPTION: The project is located downstream of Arlington in Snohomish County, in northwestern Washington; 47 miles north of Seattle. The project provides for channel and bank improvements to reduce bank erosion and channel changes on the Stillaguamish River. The project covers the area between Arlington and the head of Hat Slough, a distance of 15 miles, and on Cook Slough for 3 miles. The project includes revetments at 26 places on the river and structures at Cook Slough; a concrete control weir 275-feet long between steel, sheet-pile piers at the head to limit flow through the slough; and two cut-off channels, each about 900-feet long, to eliminate sharp bends.

FISCAL YEAR 2019 ALLOCATION: $3,213,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including re-design and repair of the fish weir and construction of the designed modifications and upgrades needed on the fish weir to allow safe passage of fish.

FISCAL YEAR 2020 ALLOCATION: $644,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including supervision and administration of previously awarded contract to modify and upgrade the fish ladder.

BUDGETED AMOUNT FOR FY 2021: M: $97,000 **O:** $202,000 **T:** $299,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $299,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Since its construction in 1939, the project is estimated to have prevented $5.9 million in flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $124,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tacoma-Puyallup River, WA

AUTHORIZATION: The Flood Control Act of 1936 (P.L. 74-738), and the River and Harbor and Flood Control Act of 1938 (P.L. 75-685)

LOCATION AND DESCRIPTION: The project is located on the Puyallup River near Tacoma, Washington and is part of the flood protection infrastructure for the City of Tacoma. The project was planned in conjunction with Mud Mountain Dam, and affords protection against floods 50-percent greater than the maximum discharge of record.

FISCAL YEAR 2019 ALLOCATION: $216,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $182,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $67,000 **O:** $147,000 **T:** $214,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $214,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Since 1950, the project is estimated to have prevented $165 million in flood damages.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $1,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: The Dalles Lock and Dam, WA and OR

AUTHORIZATION: The Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: The Dalles Dam is 90 miles east of Portland on the Columbia River between Washington and Oregon. It is a multi-purpose with hydropower Federal project. It consists of a dam with spillways, fish passage, a navigation lock, a powerhouse, a reservoir (Lake Celilo), and recreation sites.

FISCAL YEAR 2019 ALLOCATION: $4,142,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $3,971,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific activities including completion of the Navlock Tainter Valve detailed design report and design.

BUDGETED AMOUNT FOR FY 2021: M: $983,000 **O:** $3,244,000 **T:** $4,227,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $3,281,000, of which $1,615,000 is allocated for Joint activities – Funds will be used for commonly performed O&M work.

FRM: N/A

RC: $583,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $363,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including Seufert Park restoration.

WS: N/A

OTHER INFORMATION: As a multiple purpose project with power, the project's budget includes Joint activities shared between business lines as follows: NAV – 100%. The project provides for navigation and hydroelectric power generation. The powerhouse has 26 main generating units with a capacity of 1,800-megawatts, and generated 7,171,000 megawatt-hours of electricity in FY 2018, enough for 662,000 homes. It also provides fish-passage facilities including two ladders and a fish lock. Dispersed recreation occurs at four minimally developed sites and on over 4 thousand acres of lands and natural resource areas surrounding Lake Celilo.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $370,000. There was an additional $37,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

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PPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Beech Fork Lake, WV

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: The project is located in Wayne County, West Virginia on Beech Fork, a tributary of Twelvepole Creek, 2 miles southeast of Lavalette, WV. The project includes operation and maintenance (O&M) of Beech Fork Lake. The lake is impounded by a rolled earth fill dam with a maximum height of 86 feet and a crest length of 1,080 feet. The dam was completed in February 1977.

FISCAL YEAR 2019 ALLOCATION: $1,805,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities which included bypass discharge gates repair, downstream bridge replacement, selective withdrawal gates repair and mattress bulkhead fabrication.

FISCAL YEAR 2020 ALLOCATION: $1,714,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including phase 1 of a master plan.

BUDGETED AMOUNT FOR FY 2021: M: $367,000 **O:** $1,304,000 **T:** $1,671,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,277,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including ARC flash 5-year compliance inspection and mattress bulkhead fabrication.

RC: $180,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $214,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including a master plan.

WS: N/A

OTHER INFORMATION: The project has prevented over $31,200,000 in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $6,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $10,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Bluestone Lake, WV

AUTHORIZATION: Section 5 of the Flood Control Act (FCA) of 1936 (P.L. 74-738) as amended by Section 4 of the FCA 1938 (P.L. 75-761) incorporating the Executive Order of the President 7183A of 1935

LOCATION AND DESCRIPTION: Bluestone Lake is in Summers County, WV, on the New River, a tributary of the Kanawha River; 64.8 miles above the mouth of the New River. The project includes operation and maintenance (O&M) of Bluestone Lake. The lake is impounded by a concrete gravity dam with a gated spillway. The top length of the dam is 2,048 feet with a maximum height of 165 feet. The dam was completed in December 1947.

FISCAL YEAR 2019 ALLOCATION: $4,042,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including an instrumentation survey, updating Interim Risk Reduction Measure Plan (IRRMP), and rehabilitation of the sluice deflectors.

FISCAL YEAR 2020 ALLOCATION: $2,264,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including phase 1 master plan.

BUDGETED AMOUNT FOR FY 2021: M: $836,000 **O:** $1,469,000 **T:** $2,305,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,736,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including plans and specifications for crest gates.

RC: $155,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $414,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including master plan and boundary monumentation and rectification.

WS: N/A

OTHER INFORMATION: The project has prevented over $2.3 million in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $216,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $15,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Burnsville Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Burnsville Lake is located in Braxton County, WV on the Little Kanawha River. It is 124.2 miles above its confluence with the Ohio River and approximately 3 miles above the town of Burnsville. The project includes operation and maintenance (O&M) of Burnsville Lake. The lake is impounded by a rockfill embankment with impervious core dam with a gated spillway. The crest length of the dam is 1,400 feet. The dam was completed in January 1976.

FISCAL YEAR 2019 ALLOCATION: $3,108,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities which included arc flash review, upgrades to the security measures, surveying the surface displacement monuments, replacing electric wires to the radio tower, replacing the sluice gate cylinder seals, rehabilitating the foundation drains, replacing the knife gate, spraying rip rap around the dam, and maintaining the Bulltown historic area.

FISCAL YEAR 2020 ALLOCATION: $2,738,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M activities. Funds are also being used for specific work activities including phase 1 master plan and replacement of sluice gate hydraulic line corrosion.

BUDGETED AMOUNT FOR FY 2021: M: $611,000 **O:** $2,266,000 **T:** $2,877,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,605,000 – Funds will be used for commonly performed O&M work.

RC: $880,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $392,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project has prevented over $186 million in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $8,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $10,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: East Lynn Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: East Lynn Lake is located on the East Fork of Twelvepole Creek, 10 miles above the mouth of East Fork and 42 miles above the mouth of Twelvepole Creek. The project includes operation and maintenance (O&M) of East Lynn Lake. The lake is impounded by a rolled earth-fill dam with an uncontrolled saddle spillway. The top length of the dam is 652 feet. The dam was completed in April 1971.

FISCAL YEAR 2019 ALLOCATION: $2,286,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including performing an instrumentation survey.

FISCAL YEAR 2020 ALLOCATION: $2,618,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including investigating deteriorating selective withdraw gate guides on Intake structure, completing phase 1 master plan and completing a historic properties management plan.

BUDGETED AMOUNT FOR FY 2021: M: $399,000 **O:** $2,261,000 **T:** $2,660,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,768,000 – Funds will be used for commonly performed O&M work.

RC: $712,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $180,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project has prevented over $114.7 million in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $9,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Elkins, WV

AUTHORIZATION: Section 4 of the Flood Control Act of 1938 (P.L 75-761)

LOCATION AND DESCRIPTION: The project is located on the Tygart River at Elkins, Randolph County, West Virginia. Elkins is a local flood protection project.

FISCAL YEAR 2019 ALLOCATION: $117,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including project requests from the sponsor.

FISCAL YEAR 2020 ALLOCATION: $25,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $45,000 **O:** $34,000 **T:** $79,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $79,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Elkins is estimated to have prevented more than $24 million in damages since its completion in 1949.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $114,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Kanawha River Locks and Dams, WV

AUTHORIZATION: River and Harbor Acts of 1930 (P.L. 71-520) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: The Kanawha River Locks and Dams project is a moderate-use waterway located in West Virginia. It begins at the mouth of the Kanawha River at its confluence with the Ohio River and stretches 90.6 miles upstream. Located along this stretch of waterway are the London, Marmet, and Winfield Locks and Dams.

FISCAL YEAR 2019 ALLOCATION: $11,487,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities which included dredging an instrumentation survey at Winfield L&D, replacing roller gate chain at London, repairing the roller gate at Winfield L&D, engineering and design to fabricate one replacement dam roller gate at Winfield L&D, and engineering and design to rehabilitate the pier at Marmet L&D.

FISCAL YEAR 2020 ALLOCATION: $18,080,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including ARC flash for London and Marmet L&D, repairing Miter gates in Auxiliary chamber at Marmet L&D, replacing lock crossover and gallery lighting at Winfield L&D, Winfield L&D Roller Gate #1 repairs, Winfield L&D Auxiliary Chamber Miter Gate Anchorage Component Replacement and for the Winfield L&D major rehabilitation report.

BUDGETED AMOUNT FOR FY 2021: M: $3,871,000 **O:** $7,111,000 **T:** $10,982,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $10,892,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging.

FRM: N/A

RC: $50,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $40,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The 5-year average tonnage of commodities transported on the Kanawha River Locks and Dams exceeds 12,900,000 tons.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $748,000. There was an additional $2,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $100,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ohio River Locks and Dams, WV, KY and OH

AUTHORIZATION: River and Harbor Acts of 1909 (P.L. 60-317) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Ohio River Locks and Dams is located in West Virginia, Kentucky and Ohio and begins 127 miles downstream from Pittsburgh at mile 127 and continues to mile 438 on the Ohio River. The project includes Willow Island, Belleville, Racine, Robert C. Byrd, Greenup, and Captain Anthony Meldahl Locks and Dams (L&D), which are the six locks within the Huntington District located on the Ohio River.

FISCAL YEAR 2019 ALLOCATION: $35,126,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including repairing main lock miter gate at Willow Island L&D; repairs to the middle lock wall, repairs to the lock wall concrete, and investigating the scour downstream of the dam at Greenup L&D; dewatering and repairs at Willow Island L&D; an instrumentation survey at Robert C. Byrd L&D; coordination activities on Barker House at Willow Island L&D; and security plans and specifications at Robert C. Byrd L&D and Belleville L&D.

FISCAL YEAR 2020 ALLOCATION: $39,367,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including ARC Flash update at Willow Island L&D; repairs to middle lock wall at Greenup L&D; Phase 1 Master Plan; replace gallery lighting at Belleville; Greenup L&D Sector Base, Auxiliary Chamber and River Wall Miter Gate Machinery & Empty Valve repairs; and, Greenup L&D Middle Wall Miter Gate Machinery and Empty Valve repairs.

BUDGETED AMOUNT FOR FY 2021: M: $22,470,000 **O:** $14,538,000 **T:** $37,008,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $36,578,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including repairing Main chamber emergency gate at Meldahl L&D, rehab hydraulic system and install individual HPU on main chamber at Willow Island L&D, and repairs to the miter gate machinery on the main chamber at Greenup L&D.

FRM: N/A

RC: $80,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $350,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The annual tonnage of commodities transported on this waterway over the past five years exceeds 200,000,000 tons.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $2,128,000. There was an additional $81,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $500,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Ohio River Open Channel Work, WV, KY and OH

AUTHORIZATION: River and Harbor Acts of 1909 (P.L. 60-317) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Ohio River Open Channel Work, WV, KY and OH begins downstream from Pittsburgh at mile 127 and continues to mile 438 on the Ohio River. The project requires annual dredging to maintain its authorized depth of nine feet.

FISCAL YEAR 2019 ALLOCATION: $2,222,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including dredging.

FISCAL YEAR 2020 ALLOCATION: $2,683,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including dredging.

BUDGETED AMOUNT FOR FY 2021: M: $1,932,000 **O:** $672,000 **T:** $2,604,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: $2,604,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including dredging.

FRM: N/A

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The annual average tonnage of commodities transported on this waterway for the past five years exceeds 73 million tons. Approximately 60-percent of the funding is used to dredge the main approach channels to lock and dam projects.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $564,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $10,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: R. D. Bailey Lake, WV

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: R. D. Bailey Lake is located about a mile northeast of the community of Justice in Mingo and Wyoming Counties in West Virginia. The lake lies 112 miles above the mouth of the Guyandotte River. The rock-fill dam has a concrete face at a maximum height of 310 feet, and a top length of 1,397 feet. The dam was completed in 1980.

FISCAL YEAR 2019 ALLOCATION: $2,231,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including initiating an arc flash review and repairing the cavitation of the sluice gates.

FISCAL YEAR 2020 ALLOCATION: $2,512,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M activities. Funds are also being used for specific work activities including upgrading all security lighting on the dam, intake structure, maintenance building and visitor center.

BUDGETED AMOUNT FOR FY 2021: M: $769,000 **O:** $1,721,000 **T:** $2,490,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,833,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including weatherproof the control structures and update interim risk reduction measures plan.

RC: $505,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $152,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project has prevented over $424 million in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $78,000. There was an additional $10,000 of unobligated funds that are committed within the Corps for scheduled ongoing requirements in FY 2020. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Stonewall Jackson Lake, WV

AUTHORIZATION: Flood Control Act of 1966 (P.L. 89-789)

LOCATION AND DESCRIPTION: Stonewall Jackson Dam is located in Lewis County at Brownsville, WV. It lies on the West Fork River, 73.9 miles above its junction with the Tygart River at Fairmont, where the two rivers meet to form the Monongahela River. Stonewall Jackson Lake is a multi-purpose reservoir.

FISCAL YEAR 2019 ALLOCATION: $1,525,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including security upgrades and update of the Master Plan.

FISCAL YEAR 2020 ALLOCATION: $1,480,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $368,000 **O:** $1,373,000 **T:** $1,741,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,536,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including installation of a walkway around a generator.

RC: $75,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $122,000 – Funds will be used for commonly performed O&M work.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Stonewall Jackson Lake is estimated to have prevented $286 million in flood damages since its completion in 1990. Benefits include flood protection, low flow augmentation for water quality, water supply, fish and wildlife enhancement, and recreation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $273,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Summersville Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Summersville Lake is located in Nicholas County, WV on the Gauley River, a tributary of the Kanawha River. It is 34.5 miles above the mouth of the Gauley River and 131.5 miles above the mouth of the Kanawha River. It is a rock-fill dam with a central impervious core, and has a maximum height of 390 feet and top length of 2,280 feet. The dam was completed in 1966.

FISCAL YEAR 2019 ALLOCATION: $2,553,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including investigating the butterfly valves, arc flash analysis and completing the Master Plan update.

FISCAL YEAR 2020 ALLOCATION: $2,545,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including replacing the intake gate knife valves and completing the spillway tree removal, grading and leveling.

BUDGETED AMOUNT FOR FY 2021: M: $1,233,000 **O:** $2,025,000 **T:** $3,258,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,534,000 – Funds will be used for commonly performed O&M work.

RC: $1,532,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including replacement of waterline at Battle Run.

H: N/A

EN: $152,000 – Funds will be used for commonly performed O&M work.

WS: $40,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: The project has prevented over $1.0 million in damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $97,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $1,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Sutton Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Sutton Lake is located in Braxton County, WV on the Elk River, a tributary of the Kanawha River. It is 100.4 miles above the mouth of the Elk River and 158.9 miles above the mouth of the Kanawha River. The lake is impounded by a concrete gravity dam with a maximum height of 210 feet and a top length of 1,178 feet. The dam was completed in 1961.

FISCAL YEAR 2019 ALLOCATION: $2,696,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were used for specific work activities including completing the arc flash review, performing an instrumentation survey, replacing the project backhoe, replacing seals on water-tight doors, repairing alignment pins, replacing electric service to the maintenance building, and removing the 36-inch low flow valve in the dam from service.

FISCAL YEAR 2020 ALLOCATION: $2,950,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairing downstream culvert pipe erosion, Phase 1 Master Plan, replacing dam boiler furnace, replacing damsite street lights, and replacing windows in dam tower.

BUDGETED AMOUNT FOR FY 2021: M: $635,000 **O:** $2,045,000 **T:** $2,680,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,658,000 – Funds will be used for commonly performed O&M work.

RC: $720,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $302,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including phase 2 master plans.

WS: N/A

OTHER INFORMATION: The project has prevented over $588 million in flood damages over the course of its operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $206,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $70,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Tygart Lake, WV

AUTHORIZATION: Rivers and Harbors Act of 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Tygart Dam is in Taylor County 2 miles south of Grafton, WV and 78 miles south of Pittsburgh. The dam is located on the Tygart River about 23.1 miles above the mouth of the river at Fairmont, WV. Tygart Lake is a multi-purpose reservoir located in Taylor and Barbour Counties.

FISCAL YEAR 2019 ALLOCATION: $1,222,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including security upgrades and flowage easement activities.

FISCAL YEAR 2020 ALLOCATION: $1,671,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including resolution of encroachments and real estate boundary and flowage easement inspection, monitoring and maintenance.

BUDGETED AMOUNT FOR FY 2021: M: $246,000 **O:** $1,477,000 **T:** $1,723,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,529,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including an emergency exercise and dam safety training.

RC: $67,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: $119,000 – Funds will be used for commonly performed O&M work.

WS: $8,000 – Funds will be used for commonly performed O&M work.

OTHER INFORMATION: Tygart Lake is estimated to have prevented more than $1.2 billion in flood damages since its construction in 1938.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $533,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $175,000.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Eau Galle River Lake, WI

AUTHORIZATION: Flood Control Acts of 1944 and 1958; Fish and Wildlife Coordination Act of 1958; Rivers and Harbors Act of 1958; Water Supply Act of 1958

LOCATION AND DESCRIPTION: Eau Galle Lake is located on the Eau Galle River, immediately upstream of Spring Valley, WI and 30 miles above its mouth at Chippewa River and its tributary, Mines Creek. Spring Valley is about 45 miles east of St. Paul, MN, and 36 miles west of Eau Claire, WI. The Eau Galle project with its large rolled-earth dam controls the 64-square mile drainage basin of the Eau Galle River.

FISCAL YEAR 2019 ALLOCATION: $996,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,050,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including pest and invasive species management.

BUDGETED AMOUNT FOR FY 2021: M: $81,000 **O:** $797,000 **T:** $878,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $493,000 – Funds will be used for commonly performed O&M work.

RC: $347,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including to provide ground source heat pump at campground comfort station and solar system for the administration building.

H: N/A

ES: $38,000 – Funds will be used for commonly performed O&M work.

WS: N/A

OTHER INFORMATION: The project is estimated to have prevented $11.5 million in flood damages since being placed into operation.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $159,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

&APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Fox River, WI

AUTHORIZATION: Act of 7 Jul 1870, as amended by the Act of 3 Mar 1875; the Rivers and Harbors Acts of 1886, 1890, 1896, 1902 (PL 57-154), 1907 (PL 59-168), 1925 (PL 68-585), and 1958 (PL 85-500); and the Water Resources Development Acts of 1986 (PL 99-662) and 1992 (PL 102-580).

LOCATION AND DESCRIPTION: The project is located on the Lower Fox River from Lake Winnebago to Green Bay, Wisconsin. The project includes nine dams consisting of concrete gravity spillways and tainter gate structures operated by lift machinery. The project is primarily operated for flood control purposes.

FISCAL YEAR 2019 ALLOCATION: $4,909,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work. Funds were also used for specific work activities including replacing gate seals at Lower Appleton Dam, repairing the left abutment at Cedars Dam, investigating sinkhole issues at Little Chute and Kaukauna Dams, replacing walkways and railings over spillway sections of Upper Appleton Dam, repairing the left abutment walkway at Menasha Dam, and updating the Master Plan.

FISCAL YEAR 2020 ALLOCATION: $11,535,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work. Funds are also being used for specific work activities including repairing walkways and piers at Lower Appleton and DePere, replacing gates and trunions at Lower Appleton and Upper Appleton, installing waterway safety signs and for dam safety Flood Risk Management instrumentation, data collection and analysis.

BUDGETED AMOUNT FOR FY 2021: M: $668,000 **O:** $2,676,000 **T:** $3,344,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $3,344,000 – Funds will be used for commonly performed O&M work. Funds will also be used for specific work activities including conducting dam safety inspections at Kaukauna and Little Chute Dams and replacing gate streamers on 9 dams.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Without continued dam operation, the risk of flooding increases, the State owned locks cannot operate and power plants/paper mills would lose pool and not be able to function. There are a total of 24 paper and pulp plants located along the Fox River that draw water from the river for use in processing and power production.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $934,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $190,000.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Sturgeon Bay Harbor and Lake Michigan Ship Canal, WI 2/

AUTHORIZATION: Rivers and Harbors Act of 1873, as amended by the Rivers and Harbors Acts of 1892, 1902 (PL 57-154), 1935 (PL 74-409), and 1945 (PL 79-14).

LOCATION AND DESCRIPTION: Sturgeon Bay Harbor is located in Wisconsin on the west shore of Lake Michigan 52 miles northeast of Green Bay and 128 miles north of Milwaukee. The harbor is a low-use, deep-draft commercial harbor with 8.5 miles of maintained navigation channel. It has authorized depths of 22 to 23 feet and 20 feet within the turning basin. The project also includes 15,100 feet of navigation structures, including breakwaters and revetments. Sturgeon Bay is home to two ship builders and a U.S. Coast Guard search and rescue operation.

FISCAL YEAR 2019 ALLOCATION: $11,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $7,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $11,000 **O:** $7,000 **T:** $18,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: N/A

RC: $18,000 – Funds will be used for commonly performed O&M work.

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: Sturgeon Bay is home to two ship builders and a U.S. Coast Guard search and rescue operation. The project accommodates an annual visitation in excess of 80,000 people.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $0. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.

2/ The amounts and descriptions on this Justification Sheet reflect only activities funded from the Operation and Maintenance Appropriation. Activities funded from the Harbor Maintenance Trust Fund are listed on a separate Justification Sheet.

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APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2021

PROJECT NAME: Jackson Hole Levees, WY

AUTHORIZATION: Flood Control Act of 1950 (P.L. 81-516)

LOCATION AND DESCRIPTION: Project is located in Western Wyoming on the Snake River near Jackson Hole Wyoming. The project includes 30.5 miles of levees located on both sides of the Snake River and 2.5 miles on the Gros Ventre River. The levees provide flood control protection.

FISCAL YEAR 2019 ALLOCATION: $582,000

DESCRIPTIONS OF WORK FOR FY 2019: Funds were used for commonly performed operation and maintenance (O&M) work.

FISCAL YEAR 2020 ALLOCATION: $1,124,000

DESCRIPTIONS OF WORK FOR FY 2020: Funds are being used for commonly performed O&M work.

BUDGETED AMOUNT FOR FY 2021: M: $842,000 **O:** $160,000 **T:** $1,002,000 1/

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2021:

N: N/A

FRM: $1,002,000 – Funds will be used for commonly performed O&M work.

RC: N/A

H: N/A

EN: N/A

WS: N/A

OTHER INFORMATION: The project consists of levees constructed by non-federal sponsors prior to November 17, 1986 near Jackson, Wyoming between River Mile 963 on the Snake River near Moose, Wyoming and River Mile 939 on the Snake River at the Highway 26 bridge and from the mouth of the Gros Ventre River upstream to the Grand Teton National Park Boundary.

1/ Unobligated Carry-in Funding: The actual unobligated carry-in from FY 2019 to FY 2020 was $35,000. As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into Fiscal Year 2021 from prior appropriations for use on this effort is $0.