BP-18 Rate Proceeding

Initial Proposal

Power Revenue Requirement Study Documentation

BP-18-E-BPA-02A

November 2016

POWER REVENUE REQUIREMENT STUDY DOCUMENTATION

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COMMONLY USED ACRONYMS AND SHORT FORMS

ACNR	Accumulated Calibrated Net Revenue
ACS	Ancillary and Control Area Services
AF	Advance Funding
aMW	average megawatt(s)
ANR	Accumulated Net Revenues
ASC	Average System Cost
BAA	Balancing Authority Area
BiOp	Biological Opinion
BPA	Bonneville Power Administration
Btu	British thermal unit
CDQ	Contract Demand Quantity
CGS	Columbia Generating Station
CHWM	Contract High Water Mark
CNR	Calibrated Net Revenue
COE	U.S. Army Corps of Engineers
COI	California-Oregon Intertie
Commission	Federal Energy Regulatory Commission
Corps	U.S. Army Corps of Engineers
COSA	Cost of Service Analysis
COU	consumer-owned utility
Council	Northwest Power and Conservation Council
CP	Coincidental Peak
CRAC	Cost Recovery Adjustment Clause
CSP	Customer System Peak
CT	combustion turbine
CY	calendar year (January through December)
DD	Dividend Distribution
dec	decrease, decrement, or decremental
DERBS	Dispatchable Energy Resource Balancing Service
DFS	Diurnal Flattening Service
DNR	Designated Network Resource
DOE	Department of Energy
DOI	Department of Interior
DSI	direct-service industrial customer or direct-service industry
DSO	Dispatcher Standing Order
EE	Energy Efficiency
EIS	Environmental Impact Statement
EN	Energy Northwest, Inc.
ESA	Endangered Species Act
ESS	Energy Shaping Service
e-Tag	electronic interchange transaction information
FBS	Federal base system
FCRPS	Federal Columbia River Power System
FCRTS	Federal Columbia River Transmission System

FELCC	firm energy load carrying capability
FORS	Forced Outage Reserve Service
FPS	Firm Power and Surplus Products and Services
FPT	Formula Power Transmission
FY	fiscal year (October through September)
G&A	general and administrative (costs)
GARD	Generation and Reserves Dispatch (computer model)
GMS	Grandfathered Generation Management Service
GSR	Generation Supplied Reactive
GRSPs	General Rate Schedule Provisions
GTA	General Transfer Agreement
GWh	gigawatthour
HLH	Heavy Load Hour(s)
HOSS	Hourly Operating and Scheduling Simulator (computer model)
HYDSIM	Hydrosystem Simulator (computer model)
IE	Eastern Intertie
IM	Montana Intertie
inc	increase, increment, or incremental
IOU	investor-owned utility
IP	Industrial Firm Power
IPR	Integrated Program Review
IR	Integration of Resources
IRD	Irrigation Rate Discount
IRM	Irrigation Rate Mitigation
IS	Southern Intertie
kcfs	thousand cubic feet per second
kW	kilowatt
kWh	kilowatthour
LDD	Low Density Discount
LLH	Light Load Hour(s)
LPP	Large Project Program
LPTAC	Large Project Targeted Adjustment Charge
Maf	million acre-feet
Mid-C	Mid-Columbia
MMBtu	million British thermal units
MRNR	Minimum Required Net Revenue
MW	megawatt
MWh	megawatthour
NCP	Non-Coincidental Peak
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NFB	**N**ational Marine Fisheries Service (NMFS) **F**ederal Columbia River Power System (FCRPS) **B**iological Opinion (BiOp)
NLSL	New Large Single Load
NMFS	National Marine Fisheries Service
NOAA Fisheries	National Oceanographic and Atmospheric Administration Fisheries

NORM	Non-Operating Risk Model (computer model)
Northwest Power Act	Pacific Northwest Electric Power Planning and Conservation Act
NP-15	North of Path 15
NPCC	Pacific Northwest Electric Power and Conservation Planning Council
NPV	net present value
NR	New Resource Firm Power
NRFS	NR Resource Flattening Service
NT	Network Integration
NTSA	Non-Treaty Storage Agreement
NUG	non-utility generation
NWPP	Northwest Power Pool
OATT	Open Access Transmission Tariff
O&M	operation and maintenance
OATI	Open Access Technology International, Inc.
OS	Oversupply
OY	operating year (August through July)
PDCI	Pacific DC Intertie
Peak	Peak Reliability (assessment/charge)
PF	Priority Firm Power
PFp	Priority Firm Public
PFx	Priority Firm Exchange
PNCA	Pacific Northwest Coordination Agreement
PNRR	Planned Net Revenues for Risk
PNW	Pacific Northwest
POD	Point of Delivery
POI	Point of Integration or Point of Interconnection
POR	Point of Receipt
Project Act	Bonneville Project Act
PS	Power Services
PSC	power sales contract
PSW	Pacific Southwest
PTP	Point to Point
PUD	public or people's utility district
PW	WECC and Peak Service
RAM	Rate Analysis Model (computer model)
RCD	Regional Cooperation Debt
RD	Regional Dialogue
REC	Renewable Energy Certificate
Reclamation	U.S. Bureau of Reclamation
RDC	Reserves Distribution Clause
REP	Residential Exchange Program
REPSIA	REP Settlement Implementation Agreement
RevSim	Revenue Simulation Model
RFA	Revenue Forecast Application (database)
RHWM	Rate Period High Water Mark

ROD	Record of Decision
RPSA	Residential Purchase and Sale Agreement
RR	Resource Replacement
RRS	Resource Remarketing Service
RSC	Resource Shaping Charge
RSS	Resource Support Services
RT1SC	RHWM Tier 1 System Capability
SCD	Scheduling, System Control, and Dispatch rate
SCS	Secondary Crediting Service
SDD	Short Distance Discount
SILS	Southeast Idaho Load Service
Slice	Slice of the System (product)
T1SFCO	Tier 1 System Firm Critical Output
TCMS	Transmission Curtailment Management Service
TGT	Townsend-Garrison Transmission
TOCA	Tier 1 Cost Allocator
TPP	Treasury Payment Probability
TRAM	Transmission Risk Analysis Model
Transmission System Act	Federal Columbia River Transmission System Act
Treaty	Columbia River Treaty
TRL	Total Retail Load
TRM	Tiered Rate Methodology
TS	Transmission Services
TSS	Transmission Scheduling Service
UAI	Unauthorized Increase
UFT	Use of Facilities Transmission
UIC	Unauthorized Increase Charge
ULS	Unanticipated Load Service
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish & Wildlife Service
VERBS	Variable Energy Resources Balancing Service
VOR	Value of Reserves
VR1-2014	First Vintage Rate of the BP-14 rate period (PF Tier 2 rate)
VR1-2016	First Vintage Rate of the BP-16 rate period (PF Tier 2 rate)
WECC	Western Electricity Coordinating Council
WSPP	Western Systems Power Pool

1. GENERATION REVENUE REQUIREMENTS

1.1 Introduction

This chapter documents how Bonneville Power Administration's (BPA) annual generation revenue requirements are determined. Two tables are presented for each year of the rate period (FY 2018-2019). On the first table, revenue requirements for FY 2018-2019 are projected in an income statement format. The second table, a statement of annual cash flows, determines the minimum required net revenues and presents the annual cash flows available for risk mitigation. These revenue requirements form the basis of the program.

1.2 Income Statement

Below is a line-by-line description of the components in the Table 1A, Income Statement

Power System Generation Resources (Line 2). This category encompasses the costs associated with power generated by Federal hydroelectric facilities operated by the Corps and Reclamation and power obtained through contracts for non-Federal resources and through energy conservation. This category includes lines 3 through 10, described below. *See* Documentation, BP-18-E-BPA-02A, Chapter 3.

Operating Generation Resources (Line 3). This category includes the operations and maintenance expenses associated with power-producing resources including the CGS, Reclamation, and Corps, and the annual expenses associated with long-term contract generating projects. *Id.*

Operating Generation Settlement Payments (Line 4). A settlement agreement between the Confederated Tribes of the Colville Reservation and the United States was signed in 2004 concerning the construction of Grand Coulee Dam. The Settlement Act (Public Law 103-436) ratifying the settlement agreement authorizes BPA to make annual payments to the Tribes for the use of tribal lands for power production at the Columbia Basin project. *Id.*

Non-Operating Generation (Line 5). This category includes the decommissioning costs of the Trojan nuclear plant and the unfinished WNP-1 and WNP-3 nuclear plants. *Id.*

Contracted Power Purchases (Line 6). This category includes short-term (balancing) power purchases and hedging/mitigation. *Id.*

Augmentation Power Purchases (Line 7). This category includes augmentation power purchases and the PNCA headwater benefit. Augmentation power purchase costs reflect the energy that BPA purchases in order to satisfy its obligation to meet the load requirements for public utilities. The PNCA headwater benefit refers to the costs associated with benefits BPA receives from storage projects in Canada. *Id.*

Exchanges and Settlements (Line 8). This category represents the benefits for qualifying public utilities and IOUs that are calculated as part of the Residential Exchange Program. *Id.*

Renewable Generation (Line 9). This category reflects the operating expenses of several generating projects fueled by renewable energy resources, such as wind, geothermal, methane gas, solar, and "fish-friendly small hydro projects." *Id.*

Generation Conservation (Line 10). This category includes the cost of conservation programs including Marketing Development, which are reimbursable contracts with equal and offsetting revenues; Market Transformation; Legacy Conservation programs; Technology Leadership; and Low-Income Weatherization. *Id.*

Power Non-Generation Operations (Line 11). This category reflects Power Services' internal costs associated with supporting the power function. It includes the costs of activities such as generation oversight, weather and stream flow forecasting, system operations planning, schedule planning, pre-scheduling, after-the-fact accounting of power transactions, power billing, customer account executives and customer service support staff, development and administration of power sales contracts, PS strategy development, PS financial reporting, analysis and budgeting, risk management, and PS human resources management. *Id.*

PS Transmission Acquisition and Ancillary Services (Line 12). This category includes the annual expenses associated with Power Services' Transmission Acquisition program. It represents costs associated with services necessary to deliver energy from resources to markets or loads. This includes transmission, ancillary services, and real power losses, as purchased from BPA's Transmission Services business unit (TS) or non-Federal entities; TS embedded costs for the facilities that integrate power from Corps and Reclamation projects onto the transmission system; and metering and communication requirements. *Id.*

F&W/USF&W/Planning Council/Environmental Requirements (Line 13). BPA funds projects designed to protect, mitigate and enhance fish and wildlife affected by the FCRPS in a manner consistent with the NPCC Columbia River Basin Fish and Wildlife Program, and to implement commitments made pursuant to Biological Opinions (BiOps) issued by NOAA Fisheries and the U.S. Fish and Wildlife Service regarding species listed under the Endangered Species Act. This line item includes the expense portion of BPA's Fish and Wildlife direct program, including staff costs and operating expenses of fish and wildlife activities. These activities include measures to implement the fish and wildlife mitigation consistent with the NPCC Fish and Wildlife Program as well BiOps issued by the NOAA Fisheries for listed salmon and steelhead and the U.S. Fish and Wildlife Service for listed bull trout and sturgeon. *Id.*

General and Administrative/Shared Services (Line 14). This category represents the allocated portion of BPA's Corporate General and Administrative costs, which are allocated to the business lines. Major functions besides the Executive Office are Corporate Communication, Finance, Diversity, and Safety. This category includes costs for the Civil Service Retirement System (CSRS) expense; information technology services; infrastructure and maintenance; building rent, maintenance and security; mail services; personnel services; library and printing services; internal training; purchasing; and furniture. CSRS reflects the costs for the unfunded liability of the Civil Service Retirement and Disability Fund, the Employees Health Benefit Fund, and the Employees Life Insurance Fund. *Id.*

Other Income, Expenses, and Adjustments (Line 15). This category would include costs for items that do not fit in any other category. For this proposal, it includes an undistributed expense reduction identified in the IPR, an undistributed adjustment for potential non-Federal debt extension, the application of cash raised in prior rate periods for the repayment of Federal debt, and the use of cash freed up by refinancing certain non-Federal debt to offset the expensing of energy efficiency investments.. *Id.,* Chapter 3, Tables 3A and 3H

Non-Federal Debt Service (Line 16). This category consists of third-party debt service or payment costs associated with capitalized contracts and other long-term, fixed contractual obligations. Debt service costs associated with EN projects (WNP-1, CGS, and WNP-3) make up the majority of these costs. *Id.,* Chapter 8

Depreciation (Line 17). Depreciation is the annual capital recovery expense associated with FCRPS plant-in-service. Reclamation and Corps (including Lower Snake River Fish and Wildlife Compensation Plan (LSRCP)) plant, including assets for fish and wildlife recovery, is depreciated by the straight-line method of calculation, using the composite service life of all projects, 75 years. Capital equipment (office furniture and fixtures, data processing hardware and software, and communications equipment) is also depreciated by the straight-line method using the average service lives for the particular categories of capital investment. *Id.,* Chapter 4.

Amortization (Line 18). Amortization is the annual capital recovery expense associated with non-revenue-producing assets. Conservation acquisition investments beginning in FY 2011 are amortized using a straight-line, twelve-year life. Beginning in 2016, BPA will expense rather than capitalize such investments *Id.*

Total Operating Expenses (Line 19). Total Operating Expenses is the sum of the above expenses (Lines 2 through 18).

Interest on Appropriated Funds (Line 23). Interest on Appropriated Funds includes interest on Corps and Reclamation appropriations, as calculated in the generation repayment studies. Id., Chapters 4 and 6. *Id.,* Chapter 3.

Capitalization Adjustment (Line 24). Implementation of the Refinancing Act entailed a change in capitalization on BPA's financial statements. Outstanding appropriations were reduced as a result of the refinancing by $2,142 million in the generation function. The reduction is recognized annually over the remaining repayment period of the refinanced appropriations. The annual recognition of this adjustment is based on the increase in annual interest expense resulting from implementation of the Refinancing Act, as shown in repayment studies for the year of the refinancing transaction (1997). The capitalization adjustment is included on the income statement as a non-cash contra-expense. *Id.*

Interest on Bonds Issued to U.S. Treasury (Line 25). Interest on long-term debt includes interest on bonds that BPA issues to the U.S. Treasury to fund investments in capital equipment, conservation, and fish and wildlife, and to fund Reclamation and Corps investments under the Energy Policy Act of 1992 (EPA-92) (P.L. No. 102-486, 1992 U.S. Code Cong. & Admin.

News, 106 Stat. 2776). The interest expense is calculated in the generation repayment studies. Any payments of call premiums for bonds projected to be amortized are included in this line. *Id.*

Amortization of Capitalized Bond Premiums (Line 26). When a bond issued to the U.S. Treasury is refinanced, any call premium resulting from early retirement of the original bond is capitalized and included in the principal of the new bond. The capitalized call premium is then amortized over the term of the new bond. The annual amortization is a non-cash component of interest expense. No capitalized bond premiums are anticipated in the rate period.

Non-Federal Interest (Line 27). This line recognizes the interest component of the annual credits associated with the prepay program. *Id.*

Allowance for Funds Used During Construction (AFUDC) (Line 28). AFUDC is a credit against interest costs on long-term debt (Line 20). This reduction to gross interest reflects an estimate of interest on the funds used during the construction period of facilities that have yet to be placed in service. AFUDC is capitalized along with other construction costs and is recovered through rates over the expected service life of the related plant as part of the depreciation expense after the facilities are placed in service. AFUDC, which is calculated outside the generation repayment studies, is associated with the Corps and Reclamation capital investments direct-funded by BPA, and BPA capital equipment. *Id.*

Interest Credit on Cash Reservese (Line 29). An interest income credit is also computed on the projected year-end cash balance in the BPA fund attributable to Power Services that carries over into the next year. Also included is an interest income credit calculated in the generation repayment studies on funds to be collected during each year for payments of Federal interest and amortization at the end of the fiscal year. Interest income is credited against bond interest. *Id.,* Chapter 5.

Net Interest Expense (Line 30). Net Interest Expense is computed as the sum of Interest on Appropriated Funds (Line 22), Capitalization Adjustment (Line 23), Interest on Bonds Issued to U.S. Treasury (Line 24), Amortization of Capitalized Bond Premiums (Line 25), AFUDC (Line 26), and Interest Credit (Line 27).

Total Expenses (Line 31). Total Expenses are the sum of Total Operating Expenses (Line 19) and Net Interest Expense (Line 30).

Minimum Required Net Revenues (Line 34). MRNR, an input from Line 2 of the Statement of Cash Flows (Table 1B), may be necessary to cover cash requirements in excess of accrued expenses.

Planned Net Revenues for Risk (PNRR) (Line 35). PNRR are the amount of net revenues to be included in rates for financial risk mitigation. PNRR, starting reserves, the cash-flow when non-cash expenses exceed cash payments, the CRAC, and other risk mitigation tools are available to mitigate risk in FY 2018-2019, as discussed in the Power Risk and Market Price Study, BP-18-E-BPA-03.

Planned Net Revenues, Total (Line 36). Planned Net Revenues is the sum of Minimum Required Net Revenues (Line 34) and PNRR (Line 35).

Total Revenue Requirement (Line 38). Total Revenue Requirement is the sum of Total Expenses (Line 32) and Total Planned Net Revenues (Line 36).

1.3 Statement of Cash Flows

Below is a line-by-line description of each of the components in the Table 1B, Statement of Cash Flows.

Minimum Required Net Revenues (Line 2). Determination of this line is a result of annual cash inflows and outflows shown on the Statement of Cash Flows. MRNR may be necessary so that the cash provided from operating activities will be sufficient to cover the planned amortization and irrigation assistance payments without causing the Annual Increase (Decrease) in Cash (Line 21) to be negative. The MRNR amount determined in the Statement of Cash Flows is incorporated in the Income Statement (Line 31).

Non-Federal Interst (Line 4). The interest component of the prepay credits is a non-cash item.

Depreciation and Amortization (Line 5). Depreciation and Amortization are from the Income Statement (Table 1A), lines 17 and 18 respectively. They are included in computing Cash Provided By Operating Activities (Line 10) because they are non-cash expenses of the FCRPS.

Non-Cash Expenses (Line 6): Energy Northwest is using lines of credit (LOC) to pay for its O&M costs and interest expense. This enables BPA to use the cash freed up by the LOC for early repayment of Federal obligations.

Amortization of Capitalized Bond Premiums (Line 7). Amortization of capitalized bond premiums is from the Income Statement (Table 1A, line 26). It is included in computing Cash Provided By Operating Activities (Line 10) because it is a non-cash expense of the FCRPS.

Capitalization Adjustment (Line 8). Capitalization Adjustment is from the Income Statement (Table 1A, Line 24). It is a non-cash contra-expense.

Non-Cash Revenues (Line 9). Revenues are associated with settlement agreements reached in prior periods as well as the credits associated with the prepay program. The annual non-cash revenues, which are part of the total revenues recovering the FCRPS revenue requirement, are included here as an adjustment to cash from current operations.

Cash Provided By Operating Activities (Line 10). Cash Provided By Current Operations, the sum of Lines 2, 4, 5, 6, 7, 8, and 9, is available for the year to satisfy cash requirements.

Investment in Federal Utility Plant (Including AFUDC) (Line 14). Investment in Utility Plant represents the annual increase in additions to appropriated plant-in-service and to capital expenditures for COE, Reclamation, and BPA construction work-in-progress funded by bonds.

Investment in Conservation (Line 15). Investment in Conservation represents the annual increase in capital expenditures associated with Conservation programs.

Investment in Fish and Wildlife (Line 16). Investment in Fish and Wildlife represents the annual increase in BPA's capital expenditures to fund projects for the protection, mitigation, and enhancement of fish and wildlife affected by the FCRPS in a manner consistent with the NPCC's Columbia River Basin Fish and Wildlife Program and the BiOp issued by NMFS and USFWS.

Cash Used for Investment Activities (Line 17). Cash Used for Investment Activities is the sum of Lines 14, 15, and 16.

Increase in Treasury Borrowings (Line 20). This category reflects the new bonds issued by BPA to the U.S. Treasury to fund capital equipment, conservation, and fish and wildlife capital programs and to direct-fund Reclamation and COE investments under the EPA-92. *Id.*, Chapter 7.

Repayment of Treasury Borrowings (Line 21). This is BPA's planned repayment of outstanding bonds issued by BPA to the U.S. Treasury as determined in the generation repayment studies. *Id.*, Chapter 6.

Increase in Federal Construction Appropriations (Line 22). Increase in Congressional Capital Appropriations represents congressional appropriations projected to be received during the year for COE and Reclamation capital projects. *Id.*, Chapter 4.

Repayment of Federal Construction Appropriations (Line 23). Repayment of Capital Appropriations represents projected amortization of outstanding COE and Reclamation appropriations as determined in the generation repayment studies. *Id.*, Chapter 6.

Repayment of Non-Federal Obligations (Line 24): This represents the repayment of the EN LOC issued in the prior year.

Customer Proceeds (Line 25). The prepay funds are a source of cash for capital investment. This line recognizes the drawdown of prepay funds as they are used to finance capital investments. *See* Chapter 3.

Payment of Irrigation Assistance (Line 26). Payment of Irrigation Assistance represents the payment of appropriated capital construction costs of Reclamation irrigation facilities that have been determined to be beyond the ability of the irrigators to pay and allocated to generation revenues for repayment. *Id.*, Chapter 9.

Cash Provided by Borrowing and Appropriations (Line 27). Cash Provided by Borrowing and Appropriations is the sum of Lines 20 through 25. This is the net cash-flow resulting from increases in cash from new long-term debt and capital appropriations and decreases in cash from repayment of long-term debt and capital appropriations.

Annual Increase (Decrease) in Cash (Line 29). Annual Increase (Decrease) in Cash is the sum of Lines 10, 17, and 27 and reflects the annual net cash-flow from current operations and investing and financing activities. Revenue requirements are set to meet all projected annual cash-flow requirements, as included on the Statement of Cash Flows. A decrease shown in this line would indicate that annual revenues would be insufficient to cover the year's cash requirements. In such cases, Minimum Required Net Revenues are included to offset such decrease.

Planned Net Revenues for Risk (PNRR) (Line 31). PNRR reflects the amounts included in revenue requirements to meet BPA's risk mitigation objectives from Table 1A, Line 35.

Total Annual Increase (Decrease) in Cash (Line 33). Total Annual Increase (Decrease) in Cash is the sum of Lines 29 and 31. It is the total annual cash that is projected to be available to add to BPA's cash reserves.

Table 1A

GENERATION REVENUE REQUIREMENT
INCOME STATEMENT
($000s)

		A	B
		2018	**2019**
1	OPERATING EXPENSES		
2	POWER SYSTEM GENERATION RESOURCES		
3	OPERATING GENERATION RESOURCES	702,900	771,694
4	OPERATING GENERATION SETTLEMENT PAYMENTS	22,612	22,997
5	NON-OPERATING GENERATION	1,500	1,534
6	CONTRACTED POWER PURCHASES	99,044	98,802
7	AUGMENTATION POWER PURCHASES	0	12,700
8	EXCHANGES & SETTLEMENTS	315,984	318,350
9	RENEWABLE GENERATION	38,332	39,060
10	GENERATION CONSERVATION	126,267	126,187
11	POWER NON-GENERATION OPERATIONS	95,007	96,459
12	PS TRANSMISSION ACQUISITION AND ANCILLARY SERVICES	210,077	207,093
13	F&W/USF&W/PLANNING COUNCIL	322,107	322,397
14	GENERAL AND ADMINISTRATIVE/SHARED SERVICES	86,352	89,291
15	OTHER INCOME, EXPENSES AND ADJUSTMENTS	(84,534)	(85,123)
16	NON-FEDERAL DEBT SERVICE	646,360	410,394
17	DEPRECIATION	142,911	142,860
18	AMORTIZATION	88,504	89,166
19	**TOTAL OPERATING EXPENSES**	**2,813,423**	**2,663,863**
20			
21	INTEREST EXPENSE:		
22	INTEREST		
23	APPROPRIATED FUNDS	105,610	99,742
24	CAPITALIZATION ADJUSTMENT	(45,937)	(45,937)
25	BONDS ISSUED TO U.S. TREASURY	63,663	75,058
26	AMORTIZATION OF CAPITALIZED BOND PREMIUMS	0	0
27	NON-FEDERAL INTEREST	11,628	10,747
28	ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION	(6,355)	(6,239)
29	INTEREST CREDIT ON CASH RESERVES	(2,991)	(3,163)
30	NET INTEREST EXPENSE	125,618	130,209
31			
32	**TOTAL EXPENSES**	**2,939,041**	**2,794,072**
33			
34	MINIMUM REQUIRED NET REVENUE 1/	0	68,050
35	PLANNED NET REVENUE FOR RISK	-	-
36	PLANNED NET REVENUE, TOTAL (30+31)	0	68,050
37			
38	**TOTAL REVENUE REQUIREMENT**	**2,939,041**	**2,862,121**

1/ SEE NOTE ON TABLE 1B

Table 1B

GENERATION REVENUE REQUIREMENT
STATEMENT OF CASH FLOWS
($000s)

		A 2018	B 2019
1	CASH FROM OPERATING ACTIVITIES		
2	MINIMUM REQUIRED NET REVENUE 1/	0	68,050
3	NON-CASH ITEMS:		
4	NON-FEDERAL INTEREST	11,628	10,747
5	DEPRECIATION AND AMORTIZATION	231,415	232,027
6	NON-CASH EXPENSES	0	0
7	AMORTIZATION OF CAPITALIZED BOND PREMIUMS	0	0
8	CAPITALIZATION ADJUSTMENT	(45,937)	(45,937)
9	NON-CASH REVENUES	(34,124)	(34,124)
10	CASH PROVIDED BY OPERATING ACTIVITIES	162,981	230,763
11			
12	CASH FROM INVESTMENT ACTIVITIES		
13	INVESTMENT IN:		
14	UTILITY PLANT (INCLUDING AFUDC)	(334,219)	(328,154)
15	ENERGY EFFICIENCY	0	0
16	FISH & WILDLIFE	(51,000)	(44,000)
17	CASH USED FOR INVESTMENT ACTIVITIES	(385,219)	(372,154)
18			
19	CASH FROM BORROWING AND APPROPRIATIONS:		
20	INCREASE IN BONDS ISSUED TO U.S. TREASURY	303,950	318,950
21	REPAYMENT OF BONDS ISSUED TO U.S. TREASURY	(9,000)	(156,250)
22	INCREASE IN FEDERAL CONSTRUCTION APPROPRIATIONS	81,269	53,204
23	REPAYMENT OF FEDERAL CONSTRUCTION APPROPRIATIONS	(126,747)	(17,940)
24	REPAYMENT OF NON-FEDERAL OBLIGATIONS	0	0
25	CUSTOMER PROCEEDS	0	0
26	PAYMENT OF IRRIGATION ASSISTANCE	(27,234)	(56,573)
27	CASH PROVIDED BY BORROWING AND APPROPRIATIONS	222,238	141,391
28			
29	ANNUAL INCREASE (DECREASE) IN CASH	0	0
30			
31	PLANNED NET REVENUE FOR RISK	0	0
32			
33	TOTAL ANNUAL INCREASE (DECREASE) IN CASH	0	0

1/ Line 26 must be greater than or equal to zero to indicate that cash cost recovery requirements are being achieved. If not, net revenues (MRNR) are added so that net cash flows for the year (Line 21) are zero.

2. COST ANALYSES

2.1 Introduction

This chapter documents the development of the costs necessary for ratemaking from the annual generation revenue requirements. For Cost of Service Analysis (COSA), net interest expense and planned net revenues are assigned to each Federal Columbia River Power System (FCRPS) resource pool according to the necessary level of detail. The interbusiness unit embedded costs, generation inputs to ancillary services, synchronous condensing and Corps and Reclamation transmission, are developed from the COSA data.

Data development for the COSA and interbusiness unit embedded costs are derived from the annual costs identified in Table 1A - Generation Income Statement. For the COSA, net interest expenses and planned net revenues, which are first split between Federal hydro projects and the remainder of generation by the use of equivalent annual costs (defined below). The generation portions are then divided between Fish & Wildlife, Conservation and BPA generation programs based on average net investment. These allocations, in turn, form the basis for the association of net interest expenses and MRNR with the interbusiness unit embedded costs.

2.2 Annual Capital-Related Cost Components of COSA Resource Pools

Equivalent Annual Costs: Equivalent annual costs are used to prorate net interest expense and planned net revenues between Federal Hydro and the remainder of generation. They compensate for the differences in Federal Hydro of a 75-year service life, but a 50-year repayment period, whereas the other capital areas have the same service lives and repayment periods. Consequently, net investment, the typical allocator, is distorted for Hydro. Equivalent annual costs are calculated as levelized principal and interest payments (mortgage basis) using gross plant investment and projected additions. A weighted average interest rate is used for the historical plant and projected interest rates are used for additions. The prorating is based on the sum of all calculated proxy-payments for Corps and Reclamation (Federal Hydro), and BPA plant, BPA fish and wildlife investment and all BPA conservation investments (all other generation). The non-Hydro portion is then allocated based on average net plant investment.

2.3 Interbusiness Unit Embedded Costs

All tables related to the development of interbusiness unit costs have been deleted because generation inputs rates were settled and did not depend on these embedded costs as would be typical if the rates were contested.

Table 2A

Generation Revenue Requirements by Resource Pool
PROGRAM CASE
($000s)

FY 2018	A	B	C		D	E	F
	Investment Base	**Net Interest**	**Net Revenues**		**COE/USBR**	**All Other**	**Total Generation**
1. GENERATION COSTS							
2. FEDERAL BASE SYSTEM				Equivalent Annual Costs	498,334	128,191	626,525
3. HYDRO		99,916	0	Percent	80%	20%	100%
4. FISH AND WILDLIFE	303,346	13,389	0				
5. TROJAN				Net Interest Expense	99,916	25,702	125,618
6. WNP #1							
7. CGS				Planned Net Revenues	0	-	0
8. WNP #3							
9. SYSTEM AUGMENTATION							
10. BALANCING POWER PURCHASES							
11. TOTAL FEDERAL BASE SYSTEM	303,346	113,305	0				
12. NEW RESOURCES							
13. IDAHO FALLS							
14. COWLITZ FALLS							
15. OTHER LONG-TERM POWER PURCHASES							
16. TOTAL NEW RESOURCES							
17. RESIDENTIAL EXCHANGE							
18. CONSERVATION	246,937	10,900	0				
19. OTHER GENERATION COSTS							
20. BPA PROGRAMS	32,002	1,413	0				
21. WNP #3 PLANT							
22. TOTAL OTHER GENERATION COSTS	32,002	1,413	0				
23. TOTAL GENERATION COSTS	582,285	125,618	0				
24. TRANSMISSION COSTS							
25. TBL TRANSMISSION/ANCILLARY SERVICES							
26. 3RD PARTY TRANS/ANCILLARY SERVICES							
27. GENERAL TRANSFER AGREEMENTS							
28. TOTAL TRANSMISSION COSTS							
29. TOTAL PBL REVENUE REQUIREMENT		125,618	0				

Table 2A

Generation Revenue Requirements by Resource Pool
PROGRAM CASE
($000s)

FY 2019

	A	B	C		D	E	F
	Investment Base	Net Interest	Net Revenues		Hydro	All Other	Total Generation
1. GENERATION COSTS							
2. FEDERAL BASE SYSTEM				Equivalent Annual Costs	502,526	131,097	633,623
3. HYDRO		103,269	53,970	Percent	79%	21%	100%
4. FISH AND WILDLIFE	312,628	14,910	7,792				
5. TROJAN				Net Interest Expense	103,269	26,940	130,209
6. WNP #1							
7. CGS				Planned Net Revenues	53,970	14,080	68,050
8. WNP #3							
9. SYSTEM AUGMENTATION							
10. BALANCING POWER PURCHASES							
11. TOTAL FEDERAL BASE SYSTEM	312,628	118,179	61,762				
12. NEW RESOURCES							
13. IDAHO FALLS							
14. COWLITZ FALLS							
15. OTHER LONG-TERM POWER PURCHASES							
16. TOTAL NEW RESOURCES							
17. RESIDENTIAL EXCHANGE							
18. CONSERVATION	226,219	10,789	5,639				
19. OTHER GENERATION COSTS							
20. BPA PROGRAMS	26,017	1,241	649				
21. WNP #3 PLANT							
22. TOTAL OTHER GENERATION COSTS	26017	1,241	649				
23. TOTAL GENERATION COSTS	564,864	130,209	68,050				
24. TRANSMISSION COSTS							
25. TBL TRANSMISSION/ANCILLARY SERVICES							
26. 3RD PARTY TRANS/ANCILLARY SERVICES							
27. GENERAL TRANSFER AGREEMENTS							
28. TOTAL TRANSMISSION COSTS							
29. TOTAL PBL REVENUE REQUIREMENT		130,209	68,050				

Table 2B

Equivalent Annual Costs
($000s)

	A	B	C	D	E	F	G
	AVG LIFE	COMP PLANT 9/30/2018	WT AV INT RATE	2014 EQ ANN COSTS	COMP PLANT 9/30/2019	WT AV INT RATE	2015 EQ ANN COSTS
1 Corps of Engineers/Bureau of Reclamation	50	10,524,451	4.10%	$498,334	10,826,860	3.98%	$502,526
2 BPA F&W							
3 PBL General Plant	15	557,315	3.26%	47,550	585,605	3.24%	49,913
4 CONSERVATION	8	157,892	1.62%	20,290	165,093	1.79%	20,814
5 Sub-Total	42	1,696,389	0	60,351	1,696,389	0	60,370
				128,191			131,097

	WTD LIFE	INV. BASE AS OF 9/30/2018	ANNUAL DEPR/AMORT	AVG LIFE	INV. BASE AS OF 9/30/2019	ANNUAL DEPR/AMORT
6 OFFICE FURNITURE & FIXTURES						
7 DATA PROCESSING EQUIPMENT						
8 DATA PROCESSING SOFTWARE						
9 TOTAL GENERAL PLANT - PBL	8	123,843	20,670	7	132,283	20,048
CONSERVATION						
10 LEGACY						
11 CONAUG						
12 CONSERVATION ACQUISITION						
13 TOTAL CONSERVATION	42	477,532	39,795	12	477,532	39,795

3. GENERATION EXPENSES

3.1 Introduction

This chapter compiles the expenses that are the basis for cost recovery in determination of generation revenue requirements for the rate approval period and the outyears.

3.2 Expenses

Table 3A displays the expenses used in the revenue requirement income statement and statement of cash flows of the Study. Revenue Requirement Study, BP-18-E-BPA-02, Tables 4 and 5.

O&M program expenses are from the Integrated Program Review with revisions. *Id.* Federal Projects Depreciation calculations are found in Chapter 4 of this document. Interest expense is summarized here from the results of the annual generation repayment studies. The calculation of AFUDC is also shown in this chapter.

Debt service for Energy Northwest (EN) projects are based on the tables found in Chapter 8, Capitalized Contract Obligations, of this document.

Corps and Reclamation O&M must be functionalized between generation and the transmission component that will be included in transmission rates.

Depreciation expense, calculated using the straight-line method, is functionalized according to the associated investment used in the calculations as identified in Chapter 4 of this document.

Interest expense is calculated in the repayment studies for generation using the generation capital appropriations and BPA revenue bonds issued to Treasury at individual interest rates. Generation AFUDC is associated with BPA's direct funding of Corps and Reclamation power-related capital projects.

Table 3A

Power Services Program Spending Levels
($000s)

	A	B
	Rate Period	
	2018	2019
Power System Generation Resources		
Operating Generation		
COLUMBIA GENERATING STATION	270,169	339,947
BUREAU OF RECLAMATION	165,679	163,603
CORPS OF ENGINEERS	254,457	254,457
LONG-TERM CONTRACT GENERATING PROJECTS	12,595	13,687
Sub-Total	**702,900**	**771,694**
Operating Generation Settlements and Other Payments		
COLVILLE GENERATION SETTLEMENT	22,612	22,997
SPOKANE LEGISLATION PAYMENT	0	0
Sub-Total	**22,612**	**22,997**
Non-Operating Generation		
TROJAN DECOMMISSIONING	1,000	1,000
WNP-1&3 DECOMMISSIONING	500	534
Sub-Total	**1,500**	**1,534**
Gross Contracted Power Purchases (excluding bookout adjustments) <Note 1		
DSI MONETIZED POWER SALES	0	0
PNCA HEADWATER BENEFITS	3,100	3,100
HEDGING/MITIGATION		
OTHER POWER PURCHASES - (e.g. Short-Term)	56,918	50,723
TIER 2 PURCHASES	38,931	44,726
Sub-Total	**98,949**	**98,549**
Bookout Adjustments to Contracted Power Purchases <Note 1	0	0
Augmentation Power Purchases (includes IOU Load Reduc. and Buy Backs)		
AUGMENTATION POWER PURCHASES	-	12,700
CONSERVATION AUGMENTATION	0	0
Sub-Total	**-**	**12,700**
Exchanges & Settlements		
RESIDENTIAL EXCHANGE PROGRAM	318,331	318,350
OTHER SETTLEMENTS	0	0
Sub-Total	**318,331**	**318,350**
Renewable Generation		
RENEWABLES	38,332	39,060
Sub-Total	**38,332**	**39,060**
Generation Conservation		
CONSERVATION INFRASTRUCTURE	27,149	27,283
LEGACY	590	590
MARKET TRANSFORMATION	12,364	12,049
ENERGY EFFICIENCY DEVELOPMENT	8,000	8,000
LOW INCOME WEATHERIZATION & TRIBAL	5,523	5,627
CONSERVATION ACQUISITION	71,785	71,785
DR & SMART GRID	856	854
Sub-Total	**126,267**	**126,187**
Power System Generation Sub-Total	**1,308,891**	**1,391,071**

Table 3A

Power Services Program Spending Levels
($000s)

	A	B
	Rate Period	
	2018	2019
Power Non-Generation Operations		
Power Services System Operations		
INFORMATION TECHNOLOGY	6,976	7,294
GENERATION PROJECT COORDINATION	6,174	6,409
SLICE IMPLEMENTATION	1,024	1,061
Sub-Total	**14,174**	**14,764**
Power Services Scheduling		
OPERATIONS SCHEDULING	10,054	10,404
OPERATIONS PLANNING	8,528	8,416
Sub-Total	**18,582**	**18,820**
Power Services Marketing and Business Support		
POWER R&D	4,705	4,600
SALES & SUPPORT	22,885	23,485
STRATEGY, FINANCE & RISK MGMT	21,447	21,177
EXECUTIVE AND ADMINISTRATIVE SERVICES	4,120	4,205
CONSERVATION SUPPORT	9,094	9,409
Sub-Total	**62,251**	**62,875**
Power Non-Generation Operations Sub-Total	**95,007**	**96,459**
Power Services Transmission Acquisition and Ancillary Services		
PBL Transmission Acquisition and Ancillary Services		
POWER SERVICES TRANSMISSION & ANCILLARY SERVICES	106,146	102,630
3RD PARTY GTA WHEELING	89,659	90,116
POWER SERVICES - 3RD PARTY TRANS & ANCILLARY SVCS	2,251	2,292
GENERATION INTEGRATION / TS WIT	12,022	12,055
Power Srvcs Trans Acquisition and Ancillary Services Sub-Total	**210,077**	**207,093**
Fish and Wildlife/USF&W/Planning Council/Environmental Req		
BPA Fish and Wildlife		
Fish & Wildlife	277,000	277,000
USF&W Lower Snake Hatcheries	33,483	33,483
Planning Council	11,624	11,914
Fish and Wildlife/USF&W/Planning Council Sub-Total	**322,107**	**322,397**
BPA Internal Support		
Additional Post-Retirement Contribution	19,345	20,100
Agency Services G&A (excludes direct project support)	67,006	69,192
BPA Internal Support Sub-Total	**86,352**	**89,291**

Table 3A

Power Services Program Spending Levels
($000s)

		A	B
		Rate Period	
		2018	2019
87	**Bad Debt Expense**	0	0
88	**Other Income, Expenses, Adjustments**	(10,000)	(10,000)
89			
90			
91	**Disaggregation of Selected Expenses From Revenue Requirement to RAM Cost Table**		
92	**RENEWABLES (line 34)**	38,332	39,060
93	Tier 1 Augmentation Resource (i.e. Klondike III)	10,048	10,158
94	Renewable Generation (excl. Klondike III)	28,284	28,902
95			
96	**POWER R&D (line 59)**	4,705	4,600
97	Generation Conservation R&D	1,819	1,823
98	Other Power R&D	2,886	2,777
99			
100	**POWER SERVICES TRANSMISSION & ANCILLARY SERVICES (line 69)**	106,146	102,630
101	Transmission & Ancillary Services	70,343	67,569
102	Transmission & Ancillary Services (sys. oblig.)	35,803	35,061
103			

Table 3B

Summary of Generation Repayment Study Data
($000s)

		A	B
		2018	**2019**
1	INTEREST EXPENSE (GROSS)		
2	APPROPRIATIONS	105,607	99,742
3	BONDS ISSUED TO TREASURY	62,434	73,462
	BOND PREMIUMS/DISCOUNTS	0	0
4	**TOTAL INTEREST EXPENSE**	**168,041**	**173,204**
5			
6	PLANNED AMORTIZATION		
7	APPROPRIATIONS	126,747	17,940
8	BONDS ISSUED TO TREASURY	9,000	156,250
9	**TOTAL GENERATION AMORTIZATION**	**135,747**	**174,190**
10	IRRIGATION ASSISTANCE	27,234	56,573
11	**TOTAL AMORTIZATION/IRRIGATION**	**162,981**	**230,763**

Table 3C

Federal Projects Depreciation Summary
($000s)

		A 2018	B 2019
1	BPA (Power + CORP GP)	15,421	10,949
2	Corps 1/ 2/	99,211	102,295
3	Reclamation	28,279	29,616
4	**Total Depreciation**	**142,911**	**142,860**
5	Amortization of Legacy Conservation	923	367
6	Amortization of Conservation Acquisitions	40,145	40,145
7	Amortization of CRFM Intangible Investment	10,061	10,061
8	Amortization of Fish & Wildlife	37,375	38,593
9	**Total Amortization**	**88,504**	**89,166**
10	**Total Federal Projects Depreciation**	**231,415**	**232,027**

1/	Excludes depreciation from investments paid for by BPA-TS	23	23
2/	Includes US Fish & Wildlife	3,228	3,228

Table 3D
Separation of Residential Exchange Program Support Costs
from Power Non-Generating Operations
($000s)

		A	B
		2018	**2019**
1	Strategy, Finance, & Risk Mgmt	21,447	21,177
2	Residential Exchange Program Support portion	1,006	732
3	Net to Power Non-Generating Operations (ln 1 - ln 2)	20,441	20,445
4	Executive & Administrative Svc	4,120	4,205
5	Residential Exchange Program Support portion	2	2
6	Net to Power Non-Generating Operations (ln 4 - ln 5)	4,119	4,204
7	Residential Exchange Program Support (ln 2 + ln 5)	1,008	733
8	Strategy, Finance, & Risk Mgmt (to Pwr NonGen Ops) (ln 3)	20,441	20,445
9	Executive & Administrative Svc (to Pwr NonGen Ops) (ln 6)	4,119	4,204

Table 3E
Power Services Regulatory Assets
($000s)

		A 2018	B 2019
1	Terminated Nuclear Facilities	332,211	1,973
2	REP Refunds	-	-
3	Columbia River Fish Mitigation amortization	10,061	10,061
4	Conservation Measures		
5	Additions	-	-
6	Amortization	41,068	40,512
7	Direct Service Industries' benefit 1/	-	-
8	Fish and Wildlife Measures		
9	Additions	50,532	44,000
10	Amortization	37,375	38,593
11	Settlements	22,612	22,997
12	FECA 2/	-	-
13	Sponsored Conservation	-	-
14	Trojan Decommissioning/Restoration	1,000	1,000
15	Terminated Hydro Facilities	1,456	1,485
16	Capitalized Bond Premiums	-	-

1/ This is now modeled in the rate case as a power sale with offsetting augmentation purchases if needed.

2/ Not specifically broken out in expenses

Table 3F
Allowance for Funds Used During Construction
($000s)

		A 2018	B 2019
	Direct Funding Projects		
1	Capital Expenditures	236,000	258,000
2	Plant-in-Service	257,891	256,380
3	SOY CWIP Balance	214,193	198,337
4	EOY CWIP Balance	192,301	199,958
5	Average CWIP Balance	203,247	199,148
6	AFUDC Rate	2.97%	2.97%
7	Total Direct Funding AFUDC	6,036	5,915
		18,875	18,875
	Capital Equipment		
8	Power IT	5,000	5,000
9	Corporate	5,900	5,901
10	Total Capital Equipment AFUDC	319	324
11	**Total PS AFUDC**	6,355	6,239

Table 3G
Prepay Program Cost Components
($000s)

	A	B	C	D
		Interest	Principal	Total Credit
1	2013	7,653	7,647	15,300
2	2014	14,775	15,825	30,600
3	2015	14,041	16,559	30,600
4	2016	13,273	17,327	30,600
5	2017	12,469	18,131	30,600
6	2018	11,628	18,972	30,600
7	2019	10,747	19,853	30,600
8	2020	9,826	20,774	30,600
9	2021	8,863	21,737	30,600
10	2022	7,854	22,746	30,600
11	2023	6,799	23,801	30,600
12	2024	5,694	24,906	30,600
13	2025	4,539	26,061	30,600
14	2026	3,329	27,271	30,600
15	2027	2,064	28,536	30,600
16	2028	740	29,860	30,600
17	**Total**	**134,294**	**340,006**	**474,300**

Table 3H
Calculation of RCD Effect
($000s)

		A	B	C	D
		Initial Proposal, No EN Debt Extension		**Initial Proposal, W/ EN Debt Extension**	
		2018	**2019**	**2018**	**2019**
1	Non-Federal Debt Service	646,360	410,394	252,189	217,397
2	Depreciation	142,911	142,860	142,911	142,860
3	Amortization	88,504	89,166	88,504	89,166
4	Federal Net Interest	-	-	-	-
5	Expense Offset	125,618	130,209	96,519	87,840
6	MRNR	0	68,050	479,235	288,793
7	Total	1,003,392	840,679	1,059,358	826,056
8					
9					
10	**Difference**				
11					
12		**2018**	**2019**		
13	Non-Federal Debt Service	(394,171)	(192,997)		
14	Depreciation	-	-		
15	Amortization	-	-		
16	Federal Net Interest	-	-		
17	Expense Offset	(29,098)	(42,369)		
18	MRNR	479,235	220,744		
19	**RCD Effect**	**55,966**	**(14,623)**		

Table 3I
Calculating the EN Debt Extension Revenue Requirement
($000s)

		A	B
		2018	**2019**
	Input from Repayment Study		
1	Non-Federal Principal	500,710	130,649
2	Non-Federal Interest	232,257	227,042
3	Federal Principal	390,447	423,867
4	Bond Premiums	7,966	5,462
5	Bond Discounts		
6	Federal Interest	130,980	125,372
7	Irrigation Assistance	27,234	56,573
8	Total Repayment Debt Service	**1,289,596**	**968,964**
9			
10	**Calculation of Revenue Requirement**		
11	Expense	-	-
12	Non-Federal Debt Service (Ln 1 + Ln 2)	252,189	217,397
13	Depreciation	142,911	142,860
14	Amortization	88,504	89,166
15	Expense Offset	-	-
16	Federal Net Interest 1/	96,519	87,840
17	MRNR 2/	479,235	288,793
18	**Total Revenue Requirement**	**1,059,358**	**826,056**
19			
20			
21			
22			
23	**1/ Net Interest Calculation**		
24	Gross Federal Interest	138,947	130,834
25	Prepay Interest	11,628	10,747
26	AFUDC	(6,355)	(6,239)
27	Capitalization Adjustment	(45,937)	(45,937)
28	Interest Credit	(1,763)	(1,566)
29	Net interest	96,519	87,840
30			

Table 3I
Calculating the EN Debt Extension Revenue Requirement
($000s)

		A	B
		2018	**2019**
31	**Calculation of Interest Credit**		
32	Beginning cash reserves	250,000	180,000
33	Cash Flow	0	0
34	ending cash reserves	180,000	180,000
35	Average cash reserves	215,000	180,000
36	Income Rates (melded)	0.82%	0.87%
37	Interest credit on reserves	1,763	1,566
38	Prepay Program Interest Earnings	-	-
39	Total interest credit	1,763	1,566
40			
41			
42	**2/ Calculation of MRNR**		
43	Depreciation	142,911	142,860
44	Amortization	88,504	89,166
45	Non-Cash Expenses (EN)	140,294	167,677
46	Cash Freed up by DSR Refinancing	115,949	1,550
47	Capitalization Adjustment	(45,937)	(45,937)
48	Prepay Interest	11,628	10,747
49	Prepay Credits	(30,600)	(30,600)
50	Non-Cash Revenues	(3,524)	(3,524)
51	Federal Principal Payments	(390,447)	(423,867)
52	Repayment of EN Line of Credit	(480,777)	(140,294)
53	Irrigation Assistance Payments	(27,234)	(56,573)
54	MRNR	**479,235**	**288,793**

Table 3J
Agency Services G&A Allocators

	A	B	C		D	E	F	G
		BP-18 Rates/IPR			BP-16 Rates			
	COST POOL	POWER	TRAN		POWER	TRAN	DRIVERS	COMMENTS
1	G&A EXEC/PLANNING/ GOVERNANCE	50%	50%		50%	50%	Standard rate with no consistent, measurable method of assigning support costs. Functions are general in nature. This rate does not get adjusted year-to-year. Appropriateness of costs charged to this pool were reviewed.	Corporate awards were moved from this cost pool to a separate awards pool and Asset Management was moved from Strategy to Finance.
2	G&A APPLICATION SYSTEM SUPPORT	35%	65%		35%	65%	Applications in this cost pool follow the profile of benefiting Power and Transmission at a rate of 35%-65%.	Applications should fit the profile of 35%-65% to be in this IT application cost pool.
3	G&A SECURITY SERVICES	12%	88%		12%	88%	Rate established by a direction of effort study (time spent by security staff for Power and Transmission).	This cost pool includes security for the Transmission system and BPA administrative buildings. Headquarters is a very small part of the overall program.
4	G&A LEGAL SERVICES	50%	50%		50%	50%	Standard rate that does not get adjusted year-to-year. Cost charged to the pool are reviewed to determine that they are appropriate.	Higher percents were budgeted as Corporate Business Unit rather than direct charged to the business lines in the fiscal year 2016 budget.
5	G&A HUMAN RESOURCE SERVICES	23%	77%		24%	76%	BFTE count by business unit.	Organizationally the library was moved from HR to Communications in 2016 but the library remains in the HR cost pool as the benefits are more consistent with the HR cost pool. Administrator's Award Program moved to Public Affairs cost pool. Medical surveillance moved to Safety cost pool.
6	G&A ACCOUNTING & FINANCE	45%	55%		45%	55%	Most costs in this pool are 50-50%. Exceptions are budget, payroll and Accounts Payable. Rate impact for these costs are based on budget support for Power and Transmission, BFTE for payroll, and number of vouchers for AP.	Asset Management moved from Strategic Affairs to Finance.
7	G&A SAFETY	6%	94%		18%	82%	Direction of effort study looking at business line program support provided by the Safety organization.	Safety is a key agency target and budgets were increased accordingly. Safety had a major reorganization in FY16. Medical surveillance was moved from HR to Safety.
8	STRATEGIC INTEGRATION	50%	50%		50%	50%	Standard agency rate that does not get adjusted year-to-year. Confirmed that the rate is still appropriate. As initiatives mature, they are moved as direct charge into the	Certain functions for this program are ramping down. The EIM/SCED initiative is being transformed into the Commercial Operations KSI and may be moved to the business lines.
9	RISK MANAGEMENT	62%	38%		60%	40%	Direction of effort study looking at risk support for Power and Transmission Services.	Allocation percentages by department are provided by the Risk Office.
10	G&A IT ADMINISTRATION	29%	71%		31%	69%	Rate based on weighted average for the other IT cost pools.	More quality assurance, administration and training moved into the IT Administration pool starting in fiscal year 2015.
11/12	DEDICATED IT PROJECTS	100%	100%		100%	100%	Dedicated applications for Power and Transmission Services. Rate does not get adjusted year-to-year.	This actually consists of two separate pools, one for Power and one for Transmission.
13	G&A IT INFRASTRUCTURE	22%	78%		25%	75%	FTE count by business line. For comparative purposes also looked at number of IT devices and phone services by business line which would have produced similar results.	IT provides a detailed list of devices by Department and Employee. These are assigned to high level agency functions in support of Power, F&W and Transmission.
14	G&A CROSS AGENCY IT PROJECTS	50%	50%		50%	50%	Standard agency rate that does not get adjusted year-to-year. Projects in this cost pool benefit Power and Transmission Services equally.	Very few projects are charged to this 50-50% pool.
15	G&A WORKPLACE SERVICES	46%	54%		47%	53%	B/CFTE count by business unit for employees in leased space. Also use a combination of B/CFTE by location for other services, as applicable to the nature of the cost.	Almost 40% of the costs in this pool are for leases at HQ, Washington DC (DOE Forrestal) , and field administrative offices. Munro maintenance, janitorial, utilities and furniture are charged into this Corporate workplace services cost pool.
16	SUPPLY CHAIN ADMINISTRATION	11%	89%		7%	93%	Overall rate based on program level support by Supply Chain management.	Rate is based on the underlying rates for all other Supply Chain cost pools.
17	G&A PUBLIC AFFAIRS	50%	50%		50%	50%	Standard agency rate that does not get adjusted year-to-year. Costs charged into this cost pool were reviewed for appropriateness.	Organizationally the library was moved from HR to Communications in 2016. Communications picked up the Administrator's Award program from HR.
18	SUPPLY CHAIN PURCHASING SERVICES	64%	36%		66%	34%	Weighted average of actual costs charged to environment, EE, Power, IT and Corporate work orders within the Agency Purchasing cost pool.	The rate is determined by Work Order costs in this cost pool charged specifically to IT, Eniv, F&W, Power, etc.
19	TECHNOLOGY INNOVATION	50%	50%		50%	50%	Standard agency rate that does not get adjusted year-to-year.	As projects mature, they are passed to either Power or Transmission.
21/22	G&A WORKPLACE DIRECT PROJECTS	100%	100%		100%	100%	Dedicated workplace services for Power and Transmission	There are two cost pools for Workplace Direct Projects--one exclusively for Power and the other one for Transmission.
23	BILLING & METERING SERVICES	48%	52%		47%	53%	Direction of effort study with information provided by the responsible Department managers.	Study looks at drivers such as the number of bills, complexity of bills, and metering services.
24	CONTRACTING & FORECASTING SRVC	47%	53%		54%	46%	Direction of effort study with information provided by the responsible Department managers.	Increase to Trans due to more workload for CCM/CDM associated with # of contracts, active tasks, contract templates, workflow and internal users of CCM and CDM.

Table 3K

Breakout of Other Income & Expense
($000s)

		2018	2019
1	IPR Undistributed Reduction	(10,000)	(10,000)
2	Expense Offset	(60,500)	(60,500)
3	RCD Effect	55,966	(14,623)
4	RCD Offset	(70,000)	-
5	Total	(84,534)	(85,123)

4. FCRPS GENERATION INVESTMENT BASE

4.1 Introduction

This chapter documents the development of the FCRPS generation investment base by year for the rate approval period and the outyears. The investment data are the source of depreciation calculations and provide certain inputs to the generation repayment studies. It is also the basis for allocations of net interest expense and planned net revenues in the development of the COSA tables and the generation inputs to ancillary services.

4.2 Methodology

The FCRPS plant investment information is separately compiled for the Corps, Reclamation, and BPA, including BPA conservation and fish and wildlife investments. BPA generation (general) plant investment consists of office furniture and fixtures and data processing software and hardware associated with the Power Business Line, including the Energy Efficiency Group. Historical investment data are taken from the supporting documents of FCRPS financial statements. All plant investment is depreciated and intangible plant is amortized using the straight-line method.

For BPA facilities, forecasted depreciation expense is calculated consistent with the group concept methodology used for plant accounting records. For general plant categories, average service lives incorporate an adjustment for salvage applicable to the individual groups. Both historical investment and forecast additions are depreciated according to their adjusted group life.

BPA conservation investments made after 2011 are amortized over 12 years. A investments made prior to 2011 have been fully amortized and no longer appear in the revenue requirement. Beginning in 2016, BPA discontinued the capitalization of conservation investmetns and converted it into an expense program.

BPA fish and wildlife investments are amortized over 15 years.

Corps and Reclamation investments are depreciated according to the weighted-average service lives of the projects. Depreciation forecasts factor in plant retirements using the 5-year average of plant retirement by project

Projected investments and projected depreciation expenses are accumulated with historical amounts to provide projected cumulative investments and accumulated depreciation for each forecasted year.

The investment base is calculated for each year of the rate period and outyears as an annual average.

Table 4A

FCRPS Investment Base
FY 2018
($000s)

		A	B	C
		BALANCE-AS-OF		AVERAGE
		9/30/2017	9/30/2018	2018
1	**CORPS OF ENGINEERS**			
2	COMPLETED PLANT			
3	HYDROELECTRIC GEN	8,122,203	8,347,551	8,234,877
4	TRANSMISSION	2,700	2,700	2,700
5	TOTAL COMPLETED PLANT	8,124,903	8,350,251	8,237,577
6	ACCUMULATED DEPRECIATION			
7	HYDROELECTRIC GEN	3,156,783	3,266,042	3,211,413
8	TRANSMISSION	966	1,002	984
9	TOTAL ACCUMULATED DEPRECIATION	3,157,749	3,267,044	3,212,397
10	NET COMPLETED PLANT			
11	HYDROELECTRIC GEN	4,965,420	5,081,509	5,023,464
12	TRANSMISSION	1,734	1,698	1,716
13	TOTAL NET COMPLETED PLANT	4,967,154	5,083,207	5,025,180
14	**BUREAU OF RECLAMATION**			
15	COMPLETED PLANT			
16	HYDROELECTRIC GEN	1,980,128	2,086,766	2,033,447
17	TRANSMISSION	87,434	87,434	87,434
18	TOTAL COMPLETED PLANT	2,067,562	2,174,200	2,120,881
19	ACCUMULATED DEPRECIATION			
20	HYDROELECTRIC GEN	714,919	742,032	728,475
21	TRANSMISSION	34,406	35,572	34,989
22	TOTAL ACCUM DEPRECIATION	749,325	777,604	763,464
23	NET COMPLETED PLANT			
24	HYDROELECTRIC GEN	1,265,209	1,344,734	1,304,972
25	TRANSMISSION	53,028	51,862	52,445
26	TOTAL NET COMPLETED PLANT	1,318,237	1,396,596	1,357,417
27	**CONSERVATION**			
28	CUMULATIVE INVESTMENT	1,754,993	1,696,389	1,725,691
29	ACCUM PREPAID EXPENSE	1,458,220	1,499,288	1,478,754
30	NET CONSERVATION	296,773	197,101	246,937
31	**FISH AND WILDLIFE**			
32	CUMULATIVE INVESTMENT	536,069	557,315	546,692
33	ACCUM PREPAID EXPENSE	239,301	247,390	243,346
34	NET FISH AND WILDLIFE	296,767	309,925	303,346
35	**BPA PLANT (PBL)**			
36	CUMULATIVE INVESTMENT	150,693	157,892	154,293
37	ACCUMULATED DEPRECIATION	114,580	130,001	122,291
38	NET BPA PLANT INVESTMENT	36,113	27,891	32,002
39	**TOTAL NET PLANT INVESTMENT**	**6,915,044**	**7,014,720**	**6,964,882**

Table 4B

FCRPS Investment Base
FY 20179
($000s)

		A	B	C
		BALANCE-AS-OF		AVERAGE
		9/30/2018	9/30/2019	2019
1	**CORPS OF ENGINEERS**			
2	COMPLETED PLANT			
3	HYDROELECTRIC GEN	8,347,551	8,556,096	8,451,823
4	TRANSMISSION	2,700	2,700	2,700
5	TOTAL COMPLETED PLANT	8,350,251	8,558,796	8,454,523
6	ACCUMULATED DEPRECIATION			
7	HYDROELECTRIC GEN	3,266,042	3,378,385	3,322,214
8	TRANSMISSION	1,002	1,038	1,020
9	TOTAL ACCUMULATED DEPRECIATION	3,267,044	3,379,423	3,323,234
10	NET COMPLETED PLANT			
11	HYDROELECTRIC GEN	5,081,509	5,177,711	5,129,609
12	TRANSMISSION	1,698	1,662	1,680
13	TOTAL NET COMPLETED PLANT	5,083,207	5,179,373	5,131,289
14	**BUREAU OF RECLAMATION**			
15	COMPLETED PLANT			
16	HYDROELECTRIC GEN	2,086,766	2,180,630	2,133,698
17	TRANSMISSION	87,434	87,434	87,434
18	TOTAL COMPLETED PLANT	2,174,200	2,268,064	2,221,132
19	ACCUMULATED DEPRECIATION			
20	HYDROELECTRIC GEN	742,032	770,482	756,257
21	TRANSMISSION	35,572	36,738	36,155
22	TOTAL ACCUM DEPRECIATION	777,604	807,220	792,412
23	NET COMPLETED PLANT			
24	HYDROELECTRIC GEN	1,344,734	1,410,148	1,377,441
25	TRANSMISSION	51,862	50,696	51,279
26	TOTAL NET COMPLETED PLANT	1,396,596	1,460,844	1,428,720
27	**CONSERVATION**			
28	CUMULATIVE INVESTMENT	1,696,389	1,696,389	1,696,389
29	ACCUM PREPAID EXPENSE	1,499,288	1,441,051	1,470,170
30	NET CONSERVATION	197,101	255,338	226,219
31	**FISH AND WILDLIFE**			
32	CUMULATIVE INVESTMENT	557,315	585,605	571,460
33	ACCUM PREPAID EXPENSE	247,390	270,274	258,832
34	NET FISH AND WILDLIFE	309,925	315,332	312,628
35	**BPA PLANT (PBL)**			
36	CUMULATIVE INVESTMENT	157,892	165,093	161,493
37	ACCUMULATED DEPRECIATION	130,001	140,951	135,476
38	NET BPA PLANT INVESTMENT	27,891	24,142	26,017
39	**TOTAL NET PLANT INVESTMENT**	**7,014,720**	**7,235,029**	**7,124,873**

Power General Plant Investments (Including Corporate Allocation)
($000s)

Table 4C
($000s)

FERC ACCOUNT 391.1 OFFICE FURNITURE AND FIXTURES
ASL, Remaining Life, Annual Percent=5.27%

	A	B	C	D	E	F	G	H
	FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST
1	2017	-	-	-	95	1,812	1,910	98
2	2018	-	-	-	95	1,907	1,909	2
3	2019	-	-	-	2	1,909	1,909	-

Table 4D
($000s)

FERC ACCOUNT 391.2 DATA PROCESSING EQUIPMENT
ASL, Remaining Life, Annual Percent=20%

	A	B	C	D	E	F	G	H
	FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST
1	2017				2,240	20,859	23,587	2,728
2	2018				1,579	22,438	23,587	1,149
3	2019				948	23,386	23,587	201

Power General Plant Investments (Including Corporate Allocation)
($000s)

Table 4E
($000s)

FERC ACCOUNT 391.3 DATA PROCESSING SOFTWARE
ASL, Remaining Life, Annual Percent=20% 18.33% as of FY 2006

	A	B	C	D	E	F	G	H	I	J
	FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST	CORP ADDITNS	PS ADDITNS
1	2017	10,611	1,061	2,122	16,207	87,293	116,511	29,218	5,611	5,000
2	2018	7,200	720	1,440	13,165	100,458	123,711	23,253	5,900	1,300
3	2019	7,201	720	1,440	9,417	109,876	130,912	21,036	5,901	1,300

Table 4F
($000s)

FERC ACCOUNT 397/398 COMMUNICATION/MISC EQUIPMENT
ASL, Remaining Life, Annual Percent=6.70%

	A	B	C	D	E	F	G	H
	FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST
1	2017	0	-	0	582	4,616	8,685	4,069
2	2018	0	-	0	582	5,198	8,685	3,487
3	2019	0	-	0	582	5,780	8,685	2,905

Table 4G
($000s)

SUMMARY - PBL GENERAL PLANT

	A	B	C	D	E
	FY	ANNUAL DEPR	ACCUM DEPR	CUMUL INVEST	NET INVEST
1	2017	19,124	114,580	150,693	36,113
2	2018	15,421	130,001	157,892	27,891
3	2019	10,949	140,951	165,093	24,142

Table 4H

BPA FISH & WILDLIFE INVESTMENT
($000s)

	A	B	C	D	E	F	G	H
	FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL AMORT	ACCUM AMORT	CUMUL INVEST	NET INVEST
1	2017	44,602	1,487	2,973	34,591	239,301	536,069	296,767
2	2018	50,532	1,684	3,369	37,375	247,390	557,315	309,925
3	2019	44,000	1,467	2,933	38,593	270,274	585,605	315,332

Table 4I

AMORTIZATION OF BPA CONSERVATION INVESTMENT
12-year Life (post-2011 investments)
($000s)

Conservation Acquisition, 12-year life (post-2011)

	A	B	C	D	E	F	G	H
	FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL AMORT	ACCUM AMORT	CUMUL INVEST	NET INVEST
1	2017	-	-	-	40,145	189,561	485,027	295,466
2	2018	-	-	-	40,145	229,706	485,027	255,321
3	2019	-	-	-	40,145	269,851	485,027	215,176

Legacy, 20-year life (pre-2000)

	A	B	C	D	E	F	G	H
	FY	INVEST	FIRST YEAR	FULL YEAR	ANNUAL AMORT	ACCUM AMORT	CUMUL INVEST	NET INVEST
1	2017	-	-	-	1,952	1,210,055	1,211,362	1,307
2	2018	-	-	-	923	1,210,978	1,211,362	384
3	2019	-	-	-	367	1,211,345	1,211,362	17

Table 4J
Bureau of Reclamation:
Investment and Depreciation
($000s)

	A	B	C	D	E	F	G	H	I	J	K
1											
2		5-Year		2018	2018	2018		2019	2019	2019	
3		Average	INVESTMENT		DEPR	ACCUM	INVESTMENT		DEPR	ACCUM	INVESTMENT
4		Retirements	9/30/17	ADDTNS	EXP	DEPR	9/30/18	ADDTNS	EXP	DEPR	9/30/19
5	**BOISE**										
6	GENERATION	1	36,442	14,568	583	13,070	51,009	16,562	791	13,861	67,570
7	**COLUMBIA BASIN**										
8	GENERATION	1,431	1,592,855	72,239	21,710	604,542	1,663,663	71,332	22,648	627,190	1,733,564
9	TRANSMISSION /DELIVERY		84,549		1,127	33,314	84,549		1,127	34,442	84,549
10	**TOTAL**		1,677,404	72,239	22,837	637,857	1,748,212	71,332	23,775	661,632	1,818,113
11	**GREEN SPRINGS**										
12	GENERATION	-	13,079	1,103	182	9,106	14,182	754	194	9,300	14,936
13	**HUNGRY HORSE**										
14	GENERATION	2	151,150	13,433	2,105	65,962	164,581	6,377	2,237	68,199	170,956
15	TRANSMISSION /DELIVERY		1,745		23	1,838	1,745		23	1,861	1,745
16	**TOTAL**		152,895	13,433	2,128	67,801	166,326	6,377	2,260	70,061	172,701
17	**MINIDOKA-PALISADES**										
18	GENERATION	8	164,185	6,737	2,234	43,929	170,914	281	2,281	46,210	171,187
19	TRANSMISSION /DELIVERY		1,140		15	420	1,140		15	435	1,140
20	**TOTAL**		165,325	6,737	2,249	44,349	172,054	281	2,296	46,645	172,327
21	**YAKIMA**										
22	GENERATION	-	22,417	-	299	5,422	22,417	-	299	5,721	22,417
23											
24	**TOTAL USBR**	1,442	2,067,562	108,080	28,279	777,604	2,174,200		29,616	807,220	2,268,064
25											
26	GENERATION		1,980,128		27,113	742,032	2,086,766		28,450	770,482	2,180,630
27	TRANSMISSION		87,434		1,166	35,572	87,434		1,166	36,738	87,434
28	**TOTAL**		2,067,562		28,279	777,604	2,174,200		29,616	807,220	2,268,064

Table 4K

Corps of Engineers: Investment and Depreciation
($000s)

	A	B	C	D	E	F	G	H	I	J	K	L
1			5-Year		2018	2018	2018		2019	2019	2019	
2			Average	INVESTMENT		DEPR	ACCUM	INVESTMENT		DEPR	ACCUM	INVESTMENT
3			Retirements	9/30/17	ADDTNS	EXP	DEPR	9/30/18	ADDTNS	EXP	DEPR	9/30/19
4		BONNEVILLE										
5		GENERATION	999	1,214,995	40,621	16,464	518,408	1,254,617	8,399	16,778	535,186	1,262,017
6		TRANSMISSION		2,700		36	1,002	2,700		36	1,038	2,700
7		**TOTAL**		**1,217,695**	**40,621**	**16,500**	**519,410**	**1,257,317**	**8,399**	**16,814**	**536,224**	**1,264,717**
8		OTHER PROJECTS										
9		(GENERATION ONLY)										
10		ALBENI FALLS	438	75,454	631	1,007	28,827	75,647	3,985	1,032	29,859	79,194
11		CHIEF JOSEPH	281	823,885	4,052	11,010	380,381	827,656	15,053	11,134	391,515	842,428
12		COUGAR	0	59,454	1,793	805	17,186	61,247	785	822	18,008	62,032
13		DETROIT-BIG CLIFF	84	103,228	2,930	1,395	41,892	106,074	3,128	1,435	43,327	109,118
14		DWORSHAK	83	334,306	7,014	4,504	149,247	341,237	15,708	4,654	153,901	356,862
15		GREEN PETER-FOSTER	17	67,992	2,986	926	31,523	70,961	3,430	969	32,492	74,374
16		HILLS CREEK	14	41,986	1,727	571	16,434	43,699	1,509	593	17,027	45,194
17		ICE HARBOR	21	256,511	28,793	3,612	110,929	285,283	27,037	3,984	114,913	312,299
18		JOHN DAY	210	589,224	14,908	7,954	288,970	603,922	21,558	8,195	297,165	625,269
19		LIBBY	185	464,636	0	6,194	209,129	464,451	0	6,191	215,320	464,266
20		LITTLE GOOSE	49	255,757	6,087	3,450	134,172	261,795	4,093	3,518	137,690	265,839
21		LOOKOUT POINT-DEXTER	793	125,437	1,353	1,676	52,123	125,997	300	1,677	53,800	125,504
22		LOST CREEK	50	38,314	840	516	17,253	39,104	0	521	17,774	39,054
23		LOWER GRANITE	351	417,003	3,487	5,581	190,828	420,139	3,155	5,621	196,449	422,943
24		LOWER MONUMENTAL	61	293,191	5,929	3,948	150,643	299,059	1,607	3,998	154,641	300,605
25		MCNARY	544	521,351	15,177	7,049	251,773	535,984	34,243	7,371	259,144	569,683
26		THE DALLES	834	498,006	11,483	6,711	268,494	508,655	17,084	6,890	275,384	524,905
27		LOWER SNAKE F&W		249,254	0	3,323	62,419	249,254	0	3,323	65,742	249,254
28		COLUMBIA R. FISH BYPASS	719	1,692,219	81,269	22,563	345,411	1,772,769	53,204	23,637	369,048	1,825,254
29		**TOTAL OTHER**		**6,907,209**	**190,459**	**92,795**	**2,747,634**	**7,092,934**	**205,879**	**95,565**	**2,843,199**	**7,294,078**
30												
31		**TOTAL CORPS**	**5,733**	**8,124,903**	**231,080**	**109,295**	**3,267,044**	**8,350,251**	**214,278**	**112,379**	**3,379,423**	**8,558,796**
32												
33		GENERATION		8,122,203		109,259	3,266,042	8,347,551		112,343	3,378,385	8,556,096
34		TRANSMISSION		2,700		36	1,002	2,700		36	1,038	2,700
35		**TOTAL**		**8,124,903**		**109,295**	**3,267,044**	**8,350,251**		**112,379**	**3,379,423**	**8,558,796**
36												
37	1/	Includes USFW Plant Investment		244,851		3,265	63,017	244,851		3,265	66,282	244,851
38	2/	Includes FAS 71 Intangible Asset		754,591		10,061	88,930	754,591		10,061	98,991	754,591

5. PROJECTED CASH BALANCES / INTEREST CREDITS

5.1 Introduction

This chapter documents the projection of the generation interest income (credited to interest expense) to be earned during the rate approval period and the outyears on BPA's projected cash balances and on funds attributable to generation to be returned to Treasury at year-end.

5.2 Interest credits on projected reserves for risk

The internal cash flows from revenue requirements are added to the ending rate period reserves for risk balances separately for the program and averaged. The projected interest earnings rateis multiplied by the average reserves balance to determine the annual interest income on the BPA Fund/Investments. The resulting interest income is applied as a credit against interest expense in the generation revenue requirements.

5.3 Interest credits on reserves not for risk

Reserves not for risk are those funds dedicated to specific purposes. Generally these funds were not raised through power rates. The interest income on these reserves is calculated in the same way as that for reserves for risk.

5.4 Interest income (repayment program calculation)

The interest income rates listed in this chapter are calculated and used in repayment studies to determine an interest income credit on funds collected during each year for year-end payment of amortization and interest on Corps and Reclamation appropriations and bonds BPA issued to Treasury. The repayment program assumes that cash accumulates at a uniform rate throughout the year, except for interest paid on bonds issued to Treasury at mid-year. In the repayment study output, such as in Table 11C of this document, the interest income is identified as the "float."

5.5 Allocation of Interest Credit

The interest credit is a component in the calculation of net interest, offsetting interest accrued on outstanding Treasury bonds and appropriations. The credit is allocated between the two cost pools. The Composite cost pool receives an interest credit based on $495.6 million in reserves, the amount of reserves attributed to Power at the end of FY 2001, with adjustments. The amount of reserves has been adjusted for receipts/payments related to pre-2002 transactions that have not been distributed to Slice customers.

The Non-Slice cost pool receives a credit that is the net of the total annual credit calculated in the generation revenue requirement less the amount calculated for the Composite cost pool and the interest earned on the prepay funds. The Non-Slice allocation may be negative or positive depending on the relationship between the Composite cost pool allocation and the total annual credit.

TABLE 5A
Interest Income from Projected Cash Balances
Generation Revenue Requirement
($000s)

		A	B
	Calculation of Total Interest Income	**2018**	**2019**
1	Cash flow generated	-	-
2			
	Reserves for Risk		
3	SOY Cash Balance	198,000	128,000
4	EOY Cash Balance	128,000	128,000
5	Average Cash Balance	163,000	128,000
6			
7	Interest Income Rate	0.82%	0.87%
8	Interest on BPA Fund/Investments	1,337	1,114
9			
10	Repayment Study Interest Credit	1,228	1,597
11			
12	Reserves not for Risk		
13	SOY Cash Balance	52,000	52,000
14	EOY Cash Balance	52,000	52,000
15	Average Cash Balance	52,000	52,000
16	Interest Income	426	452
17			
18	Total Interest Credit (ln 8 + 10 + 16)	2,991	3,163
19			
20			
21	**Allocation between TRM Cost Pools**	**2018**	**2019**
22	Reserves Prior to FY 2002	570,255	570,255
23	Adjustments for pre-2002 Sales/Purchases	-	0
24	Other Adjustments	-	0
25	Total Composite Cost Pool Reserves (ln 23 + ln 24 + ln 25)	570,255	570,255
26	Interest rate	0.82%	0.87%
27	Composite Pool interest credit (ln 26 X ln 27)	(4,676)	(4,961)
28	Total interest credit from Rev Req	(2,991)	(3,163)
29	Non-Slice Pool interest credit (ln 29 - ln 28)	1,685	1,798

Table 5B
Interest Income from Projected Cash Balances
Generation Current Revenue Test
($000s)

		A	B
		2018	**2019**
1	Annual Cash Surplus/(Deficit)	(128,260)	(37,355)
2			
3	**Reserves for Risk**		
4	SOY Cash Balance	198,000	69,740
5	EOY Cash Balance	69,740	32,385
6	Average Cash Balance	133,870	51,063
7			
8	Interest Income Rate	0.82%	0.87%
9	Interest on BPA Fund/Investments	1,098	444
10			
11	Repayment Study Interest Income	1,228	1,597
12			
13	**Reserves not for Risk**		
14	SOY Cash Balance	52,000	52,000
15	EOY Cash Balance	52,000	52,000
16	Average Cash Balance	52,000	52,000
17	Interest Income	426	452
18			
19	Annual Interest Income	2,753	2,493

Table 5C
Interest Income from Projected Cash Balances
Generation Revised Revenue Test
($000s)

		A	B
		2018	**2019**
1	Annual Cash Surplus/(Deficit)	11,884	10,705
2			
3	**Reserves for Risk**		
4	SOY Cash Balance	198,000	270,489
5	EOY Cash Balance	270,489	220,340
6	Average Cash Balance	234,244	245,414
7			
8	Interest Income Rate	0.82%	0.87%
9	Interest on BPA Fund/Investments	1,672	1,873
10			
11	Repayment Study Interest Income	1,032	1,819
12			
13	**Reserves not for Risk**		
14	SOY Cash Balance	52,000	52,000
15	EOY Cash Balance	52,000	52,000
16	Average Cash Balance	52,000	52,000
17	Interest Income	426	452
18			
19	Annual Interest Income	3,373	4,413

6. INTEREST RATES FOR TREASURY SOURCES OF CAPITAL AND PRICE DEFLATORS

6.1 Introduction

Interest rates on bonds issued by BPA to Treasury and interest rates for Corps and Reclamation appropriations are used in development of repayment studies and projections of Federal interest expense in revenue requirements. Price deflators are used for developing spending levels in revenue requirements.

6.2 Source of Forecasts

To project interest rates on bonds issued to Treasury, BPA uses Treasury yield curve forecasts provided by the Global Insights Group (GI). GI is also the source of price deflators that BPA treats as escalators for purposes of developing spending levels. GI develops the price deflators taking into account projections of Gross Domestic Product (GDP). The GDP consists of the sum of consumption, investment, government purchases and net exports, excluding transfers to foreigners.

6.3 Interest Rate Projections

Projected interest rates for BPA bonds issued to Treasury are based on GI's yield curve projections of Treasury market rates, plus a markup of up to 44 basis points depending on the length of time to maturity and call option. The markup estimate reflects an interagency agreement that Treasury price BPA bonds at a level comparable to securities (bonds) issued by U.S. government corporations. The markup estimate reflects the average basis point markup on recent intermediate and long-term bonds issued by BPA.

Interest rates on projected capital investments funded by appropriations are also based on GI's projections of Treasury yield curves. The yield curves used for appropriations do not include the basis point markup.

6.4 Deflators

The current and cumulative price deflator used to escalate midyear dollars are derived from the fiscal and calendar year price deflators provided by GI. They are calculated as follows:

$[(FY1/100) \times 0.5] + 1 = \text{Cumulative Price Deflator1}$

The fiscal year GDP price deflator for the current year is divided by one hundred and multiplied by one half. The result, when added to one, yields the cumulative price deflator for the first year.

$[1 + (FYt/100)] \times \text{Cumulative Price Deflator-1} = \text{Cumulative Price Deflator}, \quad \text{when } t > 1$

The fiscal year GDP price deflator for a future year is divided by one hundred and added to one. The result, when multiplied by the cumulative price deflator from the previous year, yields the cumulative price deflator for the each successive year.

To the extent deflators are used in developing the FY 2018-2019 spending levels they are based on the price deflators from the August 2015 GI Base Case forecast.

United States Government **Department of Energy**

memorandum

Bonneville Power Administration

DRAFT

DATE:

REPLY TO ATTN OF: FTC-2

SUBJECT: FY 2016 Interest Rate and Inflation Forecast

TO: See Attached "cc:" List

Please see the attached BPA interest rate and inflation forecast for the period FY 2016 through 2045.

These forecasts provide an internally consistent basis for BPA decisions regarding debt management, budget formulation and other financial analyses, as well as capital budgeting and strategic planning efforts. The FY 2016 forecast is summarized in the following tables:

- Table 1: 30 Year Treasury Yields and BPA Borrowing Rates
- Table 2: Forecast Comparison – 30 Year BPA Borrowing Rates – Callable at Par
- Table 3: 20 Year Treasury Yields and BPA Borrowing Rates
- Table 4: 15 Year Treasury Yields and BPA Borrowing Rates
- Table 5: BPA FY 2016 Appropriation Borrowing Rates
- Table 6: BPA FY 2016 BPA Borrowing Rates – No Premium
- Table 7: BPA FY 2016 BPA Borrowing Rates – Coupon Scale-Down
- Table 8: BPA FY 2016 BPA Borrowing Rates – Callable at Par
- Table 9: BPA FY 2016 Third-Party Taxable Borrowing Rates
- Table 10: BPA FY 2016 Third-Party Tax-Exempt Borrowing Rates
- Table 11: BPA FY 2016 FERC Borrowing Rates (Bank Prime)
- Table 12: BPA FY 2016 May 3-Month LIBOR Rates
- Table 13: Comparison of FY 2016 Inflation Forecast Components

Borrowing Rate Forecast Methodology

The FY 2016 forecast is based on the Global Insight (GI) Third Quarter August 2015 Long-Term Economic Outlook.

Tables 1, 3, and 4 illustrate the components of BPA's Treasury borrowing rate forecasts. GI calendar year (CY) projections of 30-year Treasury bond yields are shown in Column A. BPA fiscal year (FY) projections are shown in Column B. Column C, D, and E reflect BPA's Treasury borrowing rate options.

BPA borrowing rates from the U.S. Treasury reflect a mark-up over the Treasury yield curve. Table 6 is the Government Agency borrowing rate spread over the Treasury yield curve and reflects the rate BPA would borrow at without a call premium. The other two rates {Table 7 and Table 8} reflect the two additional borrowing options BPA can exercise with Treasury: callable at par and coupon-scale down. A callable at par call

option allows BPA to redeem the bond before maturity without paying a call premium at the time of the call. The cost of this call option results in a mark-up to the coupon rate, resulting in higher interest expense paid over the life of the bond. With a coupon scale down call option the call premium is determined at the time of bond issuance for each option call date over the bond's term; this call premium is only paid if the bond is called. In addition to paying a call premium at the time the bond is called, there is also a mark-up to the coupon rate for the coupon scale down option. The premium for these two call options are calculated using historical spread premiums.

Table Descriptions

Tables 1, 3, and 4: Shows the steps involved to arrive at the BPA borrowing rate.
Table 2: Shows the difference between the BPA borrowing rate - callable at par between last year and this year.
Table 5: Forecasts a rate equivalent to the Treasury yield curve.
Table 6: Forecasts the rate at which Bonneville would borrow from the U.S. Treasury for a bullet bond with no call option.
Table 7: Forecasts the rate at which Bonneville would borrow from the U.S. Treasury for a bullet bond with a callable at par call option.
Table 8: Forecasts the rate at which Bonneville would borrow from the U.S. Treasury for a bullet bond with a coupon scale-down call option.
Table 9: Forecasts the rate at which Bonneville would back third-party bonds on a taxable basis, as with the Lease Purchase Program.
Table 10: Forecasts the rate at which Bonneville would back third-party bonds on a tax-exempt basis, as with Bonneville-backed Energy Northwest bonds.
Table 11: Forecasts the Prime rate, the rate at which banks charge interest for their most creditworthy customers.
Table 12: Forecasts the 3-month LIBOR rate, the rate charged by London banks, used as a benchmark rate worldwide.
Table 13: Forecasts the projected change in the Gross Domestic Product (GDP) price deflator and compares to the FY 2015 inflation forecast. The table also forecasts future inflation rates.

Inflation Forecast

BPA inflation assumptions reflect projected changes in the U.S. GDP Price Deflator. The GDP Price Deflator is the broadest measure of inflation in the U.S. economy. GDP reflects the value of all goods and services produced by domestic and foreign capital and labor within the United States. Major components of GDP include: total consumption, investment, government purchases, and net exports. The real GDP calculations reflect both the changing mix of the components in GDP and the relative price changes in these components.

This index assumes a base year of 2009. The projected change in the GDP price deflator and comparison with the FY 2015 inflation forecast is summarized in Table 13. Column A shows the projected trend in GDP inflation rates between 2016-2045 on a calendar year basis and in column B by BPA fiscal year. Column C provides the cumulative price index projections. The forecast expresses fiscal year dollar values as mid-year dollar values.

If you have questions, or suggestions concerning the FY 2016 Interest Rate and Inflation Forecasts, please contact Bill Hendricks at (503) 230-5389.

Bill Hendricks
Financial Analyst, Debt and Investment Management
Attachment

cc:
See Front List
Official File –
http://internal.bpa.gov/finance/FT/FTC/Common%20Agency%20Assumptions/Forms/AllItems.aspx

Table 1

30 Year Treasury Yields and BPA Borrowing Rates

FY 2016 Forecast of BPA Borrowing Rates

Calendar/Fiscal Years 2016-2045

Year	A Bond Rate 1/ Calendar Year	B Bond Rate 2/ Fiscal Year	C BPA Rate 3/ No Premium Fiscal Year	D BPA Rate 4/ Coupon Scale-Down Fiscal Year	E BPA Rate 5/ Callable at Par Fiscal Year
2015	4.21				
2016	3.45	3.00	4.38	5.60	5.82
2017	3.76	3.68	4.41	5.63	5.86
2018	3.98	3.93	4.63	5.87	6.11
2019	3.98	3.98	4.67	5.91	6.16
2020	3.98	3.98	4.67	5.92	6.17
2021	3.98	3.98	4.67	5.92	6.17
2022	3.98	3.98	4.67	5.92	6.17
2023	3.98	3.98	4.67	5.92	6.17
2024	3.98	3.98	4.67	5.92	6.17
2025	3.98	3.98	4.67	5.92	6.17
2026	3.98	3.98	4.67	5.92	6.17
2027	3.98	3.98	4.67	5.92	6.17
2028	3.98	3.98	4.67	5.92	6.17
2029	3.98	3.98	4.67	5.92	6.17
2030	3.98	3.98	4.67	5.92	6.17
2031	3.98	3.98	4.67	5.92	6.17
2032	3.98	3.98	4.67	5.92	6.17
2033	3.98	3.98	4.67	5.92	6.17
2034	3.98	3.98	4.67	5.92	6.17
2035	3.98	3.98	4.67	5.92	6.17
2036	3.98	3.98	4.67	5.92	6.17
2037	3.98	3.98	4.67	5.92	6.17
2038	3.98	3.98	4.67	5.92	6.17
2039	3.98	3.98	4.67	5.92	6.17
2040	3.98	3.98	4.67	5.92	6.17
2041	3.98	3.98	4.67	5.92	6.17
2042	3.98	3.98	4.67	5.92	6.17
2043	3.98	3.98	4.67	5.92	6.17
2044	3.98	3.98	4.67	5.92	6.17
2045	3.98	3.98	4.67	5.92	6.17

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

2/ FY 2016 Appropriation rates are determined in accordance with BPA Appropriations Refinancing Act, 16 U.S.C. 8381 enacted on April 26, 1996, and are independent of the Global Insight Treasury Yield forecasts.

3/ Column C = Column B + U.S. Treasury borrowing markup, no premium

4/ Column D = Column B + U.S. Treasury borrowing markup + Coupon Scale-Down premium

5/ Column E = Column B + U.S. Treasury borrowing markup + Callable at Par premium

Table 2

Forecast Comparison - 30 Year BPA Borrowing Rates - Callable at Par

BPA FY 2016 vs. BPA FY 2015

Fiscal Years 2016-2045

Year	A FY 2016 Forecast BPA Rate 1/ Callable at Par	B FY 2015 Forecast BPA Rate 2/ Callable at Par	C Difference (A-B)
2016	5.82	6.38	-0.56
2017	5.86	6.60	-0.74
2018	6.11	6.69	-0.59
2019	6.16	6.75	-0.59
2020	6.17	6.76	-0.59
2021	6.17	6.76	-0.59
2022	6.17	6.76	-0.59
2023	6.17	6.76	-0.59
2024	6.17	6.76	-0.59
2025	6.17	6.76	-0.59
2026	6.17	6.76	-0.59
2027	6.17	6.76	-0.59
2028	6.17	6.76	-0.59
2029	6.17	6.76	-0.59
2030	6.17	6.76	-0.59
2031	6.17	6.76	-0.59
2032	6.17	6.76	-0.59
2033	6.17	6.76	-0.59
2034	6.17	6.76	-0.59
2035	6.17	6.76	-0.59
2036	6.17	6.76	-0.59
2037	6.17	6.76	-0.59
2038	6.17	6.76	-0.59
2039	6.17	6.76	-0.59
2040	6.17	6.76	-0.59
2041	6.17	6.76	-0.59
2042	6.17	6.76	-0.59
2043	6.17	6.76	-0.59
2044	6.17	6.76	-0.59
2045	6.17		

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

2/ Global Insight: The U.S. Economy: 30-year Focus, September 2014 Forecast, Base Case.

Table 3

20 Year Treasury Yields and BPA Borrowing Rates

FY 2016 Forecast of BPA Borrowing Rates

Fiscal Years 2016-2045

Year	A Bond Rate 1/ Calendar Year	B Bond Rate 2/ Fiscal Year	C BPA Rate 3/ No Premium Fiscal Year	D BPA Rate 4/ Coupon Scale-Down Fiscal Year	E BPA Rate 5/ Callable at Par Fiscal Year
2015	3.74				
2016	3.12	2.63	3.86	4.91	5.12
2017	3.51	3.41	4.01	5.07	5.29
2018	3.77	3.71	4.32	5.38	5.61
2019	3.77	3.77	4.39	5.47	5.70
2020	3.77	3.77	4.39	5.48	5.72
2021	3.77	3.77	4.39	5.48	5.72
2022	3.77	3.77	4.39	5.48	5.72
2023	3.77	3.77	4.39	5.48	5.72
2024	3.77	3.77	4.39	5.48	5.72
2025	3.77	3.77	4.39	5.48	5.72
2026	3.77	3.77	4.39	5.48	5.72
2027	3.77	3.77	4.39	5.48	5.72
2028	3.77	3.77	4.39	5.48	5.72
2029	3.77	3.77	4.39	5.48	5.72
2030	3.77	3.77	4.39	5.48	5.72
2031	3.77	3.77	4.39	5.48	5.72
2032	3.77	3.77	4.39	5.48	5.72
2033	3.77	3.77	4.39	5.48	5.72
2034	3.77	3.77	4.39	5.48	5.72
2035	3.77	3.77	4.39	5.48	5.72
2036	3.77	3.77	4.39	5.48	5.72
2037	3.77	3.77	4.39	5.48	5.72
2038	3.77	3.77	4.39	5.48	5.72
2039	3.77	3.77	4.39	5.48	5.72
2040	3.77	3.77	4.39	5.48	5.72
2041	3.77	3.77	4.39	5.48	5.72
2042	3.77	3.77	4.39	5.48	5.72
2043	3.77	3.77	4.39	5.48	5.72
2044	3.77	3.77	4.39	5.48	5.72
2045	3.77	3.77	4.39	5.48	5.72

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

2/ FY 2016 Appropriation rates are determined in accordance with BPA Appropriations Refinancing Act, 16 U.S.C. 8381 enacted on April 26, 1996, and are independent of the Global Insight Treasury Yield forecasts.

3/ Column C = Column B + U.S. Treasury borrowing markup, no premium

4/ Column D = Column B + U.S. Treasury borrowing markup + Coupon Scale-Down premium

5/ Column E = Column B + U.S. Treasury borrowing markup + Callable at Par premium

Table 4

15 Year Treasury Yields and BPA Borrowing Rates

FY 2016 Forecast of BPA Borrowing Rates

Fiscal Years 2016-2045

Year	A Bond Rate 1/ Calendar Year	B Bond Rate 2/ Fiscal Year	C BPA Rate 3/ No Premium Fiscal Year	D BPA Rate 4/ Coupon Scale-Down Fiscal Year	E BPA Rate 5/ Callable at Par Fiscal Year
2015	3.50				
2016	2.95	2.50	3.61	4.57	4.77
2017	3.38	3.28	3.81	4.79	5.00
2018	3.67	3.60	4.16	5.14	5.36
2019	3.67	3.67	4.25	5.25	5.47
2020	3.67	3.67	4.25	5.26	5.49
2021	3.67	3.67	4.25	5.26	5.49
2022	3.67	3.67	4.25	5.26	5.49
2023	3.67	3.67	4.25	5.26	5.49
2024	3.67	3.67	4.25	5.26	5.49
2025	3.67	3.67	4.25	5.26	5.49
2026	3.67	3.67	4.25	5.26	5.49
2027	3.67	3.67	4.25	5.26	5.49
2028	3.67	3.67	4.25	5.26	5.49
2029	3.67	3.67	4.25	5.26	5.49
2030	3.67	3.67	4.25	5.26	5.49
2031	3.67	3.67	4.25	5.26	5.49
2032	3.67	3.67	4.25	5.26	5.49
2033	3.67	3.67	4.25	5.26	5.49
2034	3.67	3.67	4.25	5.26	5.49
2035	3.67	3.67	4.25	5.26	5.49
2036	3.67	3.67	4.25	5.26	5.49
2037	3.67	3.67	4.25	5.26	5.49
2038	3.67	3.67	4.25	5.26	5.49
2039	3.67	3.67	4.25	5.26	5.49
2040	3.67	3.67	4.25	5.26	5.49
2041	3.67	3.67	4.25	5.26	5.49
2042	3.67	3.67	4.25	5.26	5.49
2043	3.67	3.67	4.25	5.26	5.49
2044	3.67	3.67	4.25	5.26	5.49
2045	3.67	3.67	4.25	5.26	5.49

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

2/ FY 2016 Appropriation rates are determined in accordance with BPA Appropriations Refinancing Act, 16 U.S.C. 8381 enacted on April 26, 1996, and are independent of the Global Insight Treasury Yield forecasts.

3/ Column C = Column B + U.S. Treasury borrowing markup, no premium

4/ Column D = Column B + U.S. Treasury borrowing markup + Coupon Scale-Down premium

5/ Column E = Column B + U.S. Treasury borrowing markup + Callable at Par premium

Table 5

BPA FY 2016 Appropriation Borrowing Rates 1/

Fiscal Years 2016-2045

(continued on next page)

Maturity

Year	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year	11 Year	12 Year	13 Year	14 Year	15 Year
2016	0.53	0.86	1.15	1.39	1.61	1.81	1.96	2.07	2.13	2.25	2.27	2.38	2.38	2.48	2.50
2017	2.18	2.33	2.47	2.60	2.74	2.82	2.90	2.98	3.06	3.14	3.17	3.20	3.22	3.25	3.28
2018	3.06	3.10	3.17	3.23	3.29	3.33	3.37	3.41	3.45	3.49	3.51	3.53	3.55	3.57	3.60
2019	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2020	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2021	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2022	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2023	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2024	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2025	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2026	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2027	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2028	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2029	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2030	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2031	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2032	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2033	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2034	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2035	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2036	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2037	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2038	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2039	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2040	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2041	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2042	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2043	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2044	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67
2045	3.25	3.27	3.31	3.36	3.40	3.44	3.47	3.50	3.53	3.56	3.58	3.60	3.62	3.65	3.67

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

2/ FY 2016 Appropriation rates are determined in accordance with BPA Appropriations Refinancing Act, 16 U.S.C. 8381 enacted on April 26, 1996, and are independent of the Global Insight Treasury Yield forecasts.

Table 5

BPA FY 2016 Appropriation Borrowing Rates 1/

Fiscal Years 2016-2045

Maturity

16 Year	17 Year	18 Year	19 Year	20 Year	21 Year	22 Year	23 Year	24 Year	25 Year	26 Year	27 Year	28 Year	29 Year	30 Year	50 Year	Year
2.50	2.52	2.63	2.63	2.63	2.70	2.75	2.75	2.85	2.88	2.88	2.88	2.98	3.00	3.00	3.00	**2016**
3.30	3.33	3.36	3.38	3.41	3.44	3.47	3.49	3.52	3.55	3.57	3.60	3.63	3.66	3.68	3.68	**2017**
3.62	3.64	3.66	3.68	3.71	3.73	3.75	3.77	3.79	3.82	3.84	3.86	3.88	3.90	3.93	3.93	**2018**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2019**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2020**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2021**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2022**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2023**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2024**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2025**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2026**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2027**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2028**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2029**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2030**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2031**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2032**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2033**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2034**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2035**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2036**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2037**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2038**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2039**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2040**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2041**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2042**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2043**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2044**
3.69	3.71	3.73	3.75	3.77	3.79	3.81	3.84	3.86	3.88	3.90	3.92	3.94	3.96	3.98	3.98	**2045**

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

2/ FY 2016 Appropriation rates are determined in accordance with BPA Appropriations Refinancing Act, 16 U.S.C. 8381 enacted on April 26, 1996, and are independent of the Global Insight Treasury Yield forecasts.

Table 6

BPA FY 2016 BPA Borrowing Rates - No Premium 1/

Fiscal Years 2016-2045

(continued on next page)

Maturity

Year	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year	11 Year	12 Year	13 Year	14 Year	15 Year
2016	1.20	1.44	1.72	1.99	2.27	2.48	2.70	2.91	3.13	3.35	3.40	3.45	3.50	3.55	3.61
2017	2.35	2.50	2.67	2.83	3.00	3.12	3.24	3.37	3.49	3.62	3.66	3.70	3.73	3.77	3.81
2018	3.26	3.33	3.43	3.53	3.63	3.70	3.78	3.85	3.92	4.00	4.03	4.06	4.09	4.12	4.16
2019	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2020	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2021	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2022	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2023	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2024	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2025	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2026	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2027	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2028	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2029	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2030	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2031	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2032	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2033	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2034	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2035	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2036	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2037	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2038	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2039	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2040	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2041	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2042	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2043	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2044	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25
2045	3.48	3.55	3.65	3.74	3.83	3.89	3.94	4.00	4.05	4.11	4.14	4.16	4.19	4.22	4.25

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 6

BPA FY 2016 BPA Borrowing Rates - No Premium 1/

Fiscal Years 2016-2045

Maturity

16 Year	17 Year	18 Year	19 Year	20 Year	21 Year	22 Year	23 Year	24 Year	25 Year	26 Year	27 Year	28 Year	29 Year	30 Year	50 Year	Year
3.66	3.71	3.76	3.81	3.86	3.91	3.97	4.02	4.07	4.12	4.17	4.22	4.28	4.33	4.38	4.38	**2016**
3.85	3.89	3.93	3.97	4.01	4.05	4.09	4.13	4.17	4.21	4.25	4.29	4.33	4.37	4.41	4.41	**2017**
4.19	4.22	4.25	4.28	4.32	4.35	4.38	4.41	4.44	4.47	4.51	4.54	4.57	4.60	4.63	4.63	**2018**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2019**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2020**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2021**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2022**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2023**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2024**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2025**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2026**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2027**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2028**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2029**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2030**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2031**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2032**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2033**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2034**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2035**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2036**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2037**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2038**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2039**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2040**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2041**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2042**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2043**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2044**
4.28	4.31	4.33	4.36	4.39	4.42	4.45	4.48	4.50	4.53	4.56	4.59	4.62	4.65	4.67	4.67	**2045**

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 7

BPA FY 2016 BPA Borrowing Rates - Coupon Scale-Down 1/

Fiscal Years 2016-2045

(continued on next page)

Maturity

Year	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year	11 Year	12 Year	13 Year	14 Year	15 Year
2016	1.28	1.62	1.98	2.34	2.70	3.01	3.31	3.62	3.92	4.22	4.29	4.36	4.43	4.50	4.57
2017	2.44	2.68	2.93	3.19	3.44	3.65	3.87	4.08	4.29	4.51	4.56	4.62	4.67	4.73	4.79
2018	3.35	3.52	3.70	3.89	4.08	4.24	4.41	4.57	4.73	4.90	4.95	5.00	5.04	5.09	5.14
2019	3.57	3.74	3.92	4.10	4.29	4.44	4.58	4.73	4.88	5.02	5.07	5.11	5.16	5.20	5.25
2020	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2021	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2022	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2023	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2024	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2025	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2026	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2027	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2028	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2029	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2030	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2031	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2032	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2033	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2034	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2035	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2036	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2037	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2038	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2039	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2040	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2041	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2042	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2043	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2044	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26
2045	3.58	3.74	3.92	4.11	4.30	4.44	4.59	4.74	4.89	5.04	5.08	5.13	5.17	5.21	5.26

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 7

BPA FY 2016 BPA Borrowing Rates - Coupon Scale-Down 1/

Fiscal Years 2016-2045

Maturity

16 Year	17 Year	18 Year	19 Year	20 Year	21 Year	22 Year	23 Year	24 Year	25 Year	26 Year	27 Year	28 Year	29 Year	30 Year	50 Year	Year
4.63	4.70	4.77	4.84	4.91	4.98	5.05	5.12	5.18	5.25	5.32	5.39	5.46	5.53	5.60	5.60	**2016**
4.84	4.90	4.96	5.01	5.07	5.12	5.18	5.24	5.29	5.35	5.40	5.46	5.52	5.57	5.63	5.63	**2017**
5.19	5.24	5.29	5.33	5.38	5.43	5.48	5.53	5.58	5.62	5.67	5.72	5.77	5.82	5.87	5.87	**2018**
5.29	5.33	5.38	5.42	5.47	5.51	5.56	5.60	5.65	5.69	5.74	5.78	5.82	5.87	5.91	5.91	**2019**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2020**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2021**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2022**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2023**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2024**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2025**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2026**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2027**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2028**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2029**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2030**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2031**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2032**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2033**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2034**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2035**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2036**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2037**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2038**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2039**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2040**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2041**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2042**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2043**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2044**
5.30	5.35	5.39	5.43	5.48	5.52	5.57	5.61	5.66	5.70	5.74	5.79	5.83	5.88	5.92	5.92	**2045**

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 8

BPA FY 2016 BPA Borrowing Rates - Callable at Par 1/

Fiscal Years 2016-2045

(continued on next page)

Maturity

Year	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year	11 Year	12 Year	13 Year	14 Year	15 Year
2016	1.30	1.66	2.04	2.42	2.80	3.12	3.45	3.77	4.09	4.42	4.49	4.56	4.63	4.70	4.77
2017	2.46	2.72	2.99	3.27	3.54	3.77	4.01	4.24	4.47	4.71	4.76	4.82	4.88	4.94	5.00
2018	3.37	3.56	3.77	3.98	4.18	4.37	4.55	4.74	4.92	5.11	5.16	5.21	5.26	5.31	5.36
2019	3.60	3.78	3.99	4.19	4.40	4.57	4.74	4.90	5.07	5.24	5.29	5.33	5.38	5.43	5.47
2020	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2021	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2022	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2023	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2024	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2025	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2026	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2027	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2028	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2029	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2030	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2031	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2032	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2033	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2034	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2035	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2036	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2037	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2038	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2039	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2040	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2041	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2042	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2043	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2044	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49
2045	3.60	3.78	3.99	4.20	4.41	4.58	4.75	4.92	5.09	5.26	5.31	5.35	5.40	5.45	5.49

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 8

BPA FY 2016 BPA Borrowing Rates - Callable at Par 1/

Fiscal Years 2016-2045

Maturity

16 Year	17 Year	18 Year	19 Year	20 Year	21 Year	22 Year	23 Year	24 Year	25 Year	26 Year	27 Year	28 Year	29 Year	30 Year	50 Year	Year
4.84	4.91	4.98	5.05	5.12	5.19	5.26	5.33	5.40	5.47	5.54	5.61	5.68	5.75	5.82	5.82	**2016**
5.05	5.11	5.17	5.23	5.29	5.34	5.40	5.46	5.52	5.58	5.63	5.69	5.75	5.81	5.86	5.86	**2017**
5.41	5.46	5.51	5.56	5.61	5.66	5.71	5.76	5.81	5.86	5.91	5.96	6.01	6.06	6.11	6.11	**2018**
5.52	5.56	5.61	5.65	5.70	5.75	5.79	5.84	5.88	5.93	5.98	6.02	6.07	6.11	6.16	6.16	**2019**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2020**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2021**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2022**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2023**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2024**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2025**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2026**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2027**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2028**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2029**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2030**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2031**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2032**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2033**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2034**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2035**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2036**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2037**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2038**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2039**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2040**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2041**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2042**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2043**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2044**
5.54	5.58	5.63	5.67	5.72	5.76	5.81	5.85	5.90	5.95	5.99	6.04	6.08	6.13	6.17	6.17	**2045**

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 9

BPA FY 2016 Third-Party Taxable Borrowing Rates 1/

Fiscal Years 2016-2045

(continued on next page)

Maturity

Year	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year	11 Year	12 Year	13 Year	14 Year	15 Year
2016	1.54	1.79	2.12	2.44	2.77	2.98	3.20	3.42	3.63	3.85	3.91	3.97	4.03	4.09	4.15
2017	2.95	3.15	3.31	3.46	3.62	3.72	3.83	3.94	4.05	4.16	4.21	4.26	4.31	4.36	4.41
2018	4.14	4.20	4.25	4.29	4.33	4.39	4.45	4.51	4.56	4.62	4.66	4.71	4.75	4.79	4.84
2019	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2020	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2021	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2022	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2023	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2024	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2025	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2026	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2027	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2028	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2029	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2030	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2031	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2032	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2033	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2034	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2035	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2036	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2037	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2038	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2039	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2040	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2041	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2042	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2043	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2044	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93
2045	4.39	4.42	4.44	4.46	4.49	4.53	4.58	4.63	4.67	4.72	4.76	4.80	4.85	4.89	4.93

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 9

BPA FY 2016 Third-Party Taxable Borrowing Rates 1/

Fiscal Years 2016-2045

Maturity

16 Year	17 Year	18 Year	19 Year	20 Year	21 Year	22 Year	23 Year	24 Year	25 Year	26 Year	27 Year	28 Year	29 Year	30 Year	50 Year	Year
4.21	4.28	4.34	4.40	4.46	4.52	4.58	4.64	4.71	4.77	4.83	4.89	4.95	5.01	5.07	5.07	**2016**
4.46	4.51	4.55	4.60	4.65	4.70	4.75	4.80	4.85	4.90	4.95	4.99	5.04	5.09	5.14	5.14	**2017**
4.88	4.92	4.96	5.01	5.05	5.09	5.14	5.18	5.22	5.27	5.31	5.35	5.40	5.44	5.48	5.48	**2018**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2019**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2020**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2021**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2022**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2023**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2024**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2025**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2026**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2027**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2028**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2029**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2030**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2031**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2032**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2033**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2034**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2035**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2036**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2037**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2038**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2039**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2040**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2041**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2042**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2043**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2044**
4.97	5.01	5.06	5.10	5.14	5.18	5.22	5.27	5.31	5.35	5.39	5.43	5.48	5.52	5.56	5.56	**2045**

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 10

BPA FY 2016 Third-Party Tax-Exempt Borrowing Rates 1/

Fiscal Years 2016-2045

(continued on next page)

Maturity

Year	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year	11 Year	12 Year	13 Year	14 Year	15 Year
2016	0.98	1.14	1.38	1.61	1.85	2.04	2.23	2.42	2.61	2.81	2.86	2.92	2.98	3.04	3.09
2017	1.88	2.01	2.14	2.28	2.41	2.54	2.66	2.79	2.91	3.04	3.09	3.14	3.19	3.23	3.28
2018	2.64	2.68	2.75	2.82	2.89	2.99	3.08	3.18	3.27	3.37	3.42	3.46	3.51	3.55	3.60
2019	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2020	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2021	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2022	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2023	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2024	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2025	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2026	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2027	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2028	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2029	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2030	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2031	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2032	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2033	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2034	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2035	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2036	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2037	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2038	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2039	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2040	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2041	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2042	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2043	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2044	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67
2045	2.80	2.81	2.87	2.93	2.99	3.08	3.17	3.26	3.35	3.44	3.49	3.53	3.58	3.63	3.67

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 10

BPA FY 2016 Third-Party Tax-Exempt Borrowing Rates 1/

Fiscal Years 2016-2045

Maturity

16 Year	17 Year	18 Year	19 Year	20 Year	21 Year	22 Year	23 Year	24 Year	25 Year	26 Year	27 Year	28 Year	29 Year	30 Year	50 Year	Year
3.15	3.21	3.26	3.32	3.38	3.44	3.49	3.55	3.61	3.66	3.72	3.78	3.84	3.89	3.95	3.95	**2016**
3.33	3.38	3.43	3.48	3.53	3.58	3.63	3.68	3.73	3.78	3.83	3.87	3.92	3.97	4.02	4.02	**2017**
3.65	3.69	3.74	3.78	3.83	3.88	3.92	3.97	4.01	4.06	4.11	4.15	4.20	4.24	4.29	4.29	**2018**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2019**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2020**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2021**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2022**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2023**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2024**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2025**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2026**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2027**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2028**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2029**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2030**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2031**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2032**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2033**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2034**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2035**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2036**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2037**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2038**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2039**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2040**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2041**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2042**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2043**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2044**
3.72	3.76	3.81	3.85	3.90	3.94	3.99	4.03	4.08	4.12	4.17	4.21	4.26	4.30	4.35	4.35	**2045**

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 11

BPA FY 2016 FERC Borrowing Rates (Bank Prime) 1/

Calendar/Fiscal Years 2016-2045

Year	A FERC Rate Calendar Year	B FERC Rate Fiscal Year
2016	4.16	3.96
2017	5.47	5.14
2018	6.25	6.05
2019	6.25	6.25
2020	6.25	6.25
2021	6.25	6.25
2022	6.25	6.25
2023	6.25	6.25
2024	6.25	6.25
2025	6.25	6.25
2026	6.25	6.25
2027	6.25	6.25
2028	6.25	6.25
2029	6.25	6.25
2030	6.25	6.25
2031	6.25	6.25
2032	6.25	6.25
2033	6.25	6.25
2034	6.25	6.25
2035	6.25	6.25
2036	6.25	6.25
2037	6.25	6.25
2038	6.25	6.25
2039	6.25	6.25
2040	6.25	6.25
2041	6.25	6.25
2042	6.25	6.25
2043	6.25	6.25
2044	6.25	6.25
2045	6.25	6.25

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 12

BPA FY 2016 May 3-Month LIBOR Rates 1/

Calendar/Fiscal Years 2016-2045

Year	A 3-Mo LIBOR Calendar Year	B 3-Mo LIBOR Fiscal Year
2016	1.40	1.19
2017	2.78	2.44
2018	3.54	3.35
2019	3.54	3.54
2020	3.54	3.54
2021	3.54	3.54
2022	3.54	3.54
2023	3.54	3.54
2024	3.54	3.54
2025	3.54	3.54
2026	3.55	3.55
2027	3.55	3.55
2028	3.55	3.55
2029	3.55	3.55
2030	3.55	3.55
2031	3.55	3.55
2032	3.55	3.55
2033	3.55	3.55
2034	3.55	3.55
2035	3.55	3.55
2036	3.55	3.55
2037	3.54	3.54
2038	3.55	3.55
2039	3.55	3.55
2040	3.54	3.55
2041	3.54	3.54
2042	3.54	3.54
2043	3.54	3.54
2044	3.55	3.54
2045	3.55	3.55

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

Table 13

Comparison of FY 2016 Inflation Forecast Components

Calendar/Fiscal Year Forecasts 2016 vs. 2015

Calendar/Fiscal Years 2016-2045

YEAR	A CY 2016 1/ Calendar Year GDP Price Deflator (%)	B FY 2016 1/ Fiscal Year GDP Price Deflator (%)	C FY 2016 2/ Fiscal Year Cumulative Price Deflator (Base Year 2015)	D FY 2015 3/ Fiscal Year GDP Price Deflator (%)	E FY 2015 3/ Fiscal Year Cumulative Price Deflator (Base Year 2014)	F Change in the GDP Price Deflator (B-D)	G Change in the Cumulative Price Deflator (C-E)
2016	1.73%	1.56%	1.008	1.84%	1.028	-0.28%	-0.020
2017	1.84%	1.81%	1.026	1.87%	1.047	-0.06%	-0.021
2018	1.83%	1.84%	1.045	1.87%	1.066	-0.03%	-0.022
2019	1.92%	1.90%	1.065	1.83%	1.086	0.07%	-0.021
2020	1.98%	1.97%	1.086	1.86%	1.106	0.10%	-0.020
2021	2.06%	2.04%	1.108	1.88%	1.127	0.16%	-0.019
2022	2.12%	2.11%	1.131	1.90%	1.148	0.21%	-0.017
2023	2.12%	2.12%	1.155	1.92%	1.171	0.20%	-0.015
2024	2.09%	2.10%	1.179	1.98%	1.194	0.12%	-0.014
2025	2.10%	2.10%	1.204	2.01%	1.218	0.09%	-0.013
2026	2.13%	2.12%	1.230	1.95%	1.241	0.17%	-0.012
2027	2.14%	2.14%	1.256	1.93%	1.265	0.21%	-0.009
2028	2.14%	2.14%	1.283	1.89%	1.289	0.24%	-0.006
2029	2.15%	2.15%	1.310	1.87%	1.313	0.27%	-0.003
2030	2.17%	2.16%	1.339	1.87%	1.338	0.30%	0.001
2031	2.23%	2.22%	1.368	1.92%	1.363	0.30%	0.005
2032	2.22%	2.23%	1.399	1.92%	1.390	0.31%	0.009
2033	2.24%	2.23%	1.430	1.92%	1.416	0.32%	0.014
2034	2.25%	2.25%	1.462	1.90%	1.443	0.35%	0.019
2035	2.22%	2.23%	1.495	1.94%	1.471	0.29%	0.024
2036	2.22%	2.22%	1.528	1.96%	1.500	0.26%	0.028
2037	2.23%	2.23%	1.562	1.96%	1.529	0.27%	0.033
2038	2.25%	2.25%	1.597	1.99%	1.560	0.26%	0.037
2039	2.27%	2.27%	1.633	2.02%	1.591	0.25%	0.042
2040	2.28%	2.28%	1.671	2.00%	1.623	0.27%	0.047
2041	2.30%	2.30%	1.709	1.98%	1.655	0.31%	0.054
2042	2.32%	2.32%	1.749	2.02%	1.689	0.30%	0.060
2043	2.34%	2.34%	1.789	2.04%	1.723	0.29%	0.066
2044	2.36%	2.36%	1.832	2.08%	1.759	0.28%	0.072
2045	2.37%	2.37%	1.875				

1/ Global Insight: The U.S. Economy: 30-Year Focus, August 2015 Forecast, Base Case.

2/ Fiscal Year Cumulative Price Deflator escalates to midyear dollars. The first year, 2016, is determined as follows: 1.008={(1.56/100)*.5}+1. An example of subsequent year cumulative growth, such as in 2017, is found as: 1.026={1+(1.81/100)}*1.008

3/ Global Insight: The U.S. Economy: 30-year Focus, September 2014 Forecast, Base Case.

7. PROJECTED BONDS ISSUED TO TREASURY

7.1 Introduction

This chapter documents all the bonds that BPA has issued and those it projects it will issue to the U.S. Treasury to finance BPA capital investments and Reclamation/Corps investments that will be direct-funded by BPA.

7.2 Issuing Bonds

BPA primarily funds capital outlays by issuing new long-term debt in the form of bonds issued to the U.S. Treasury. BPA issues four types of bonds for Power Services: Construction, Conservation Fish and Wildlife/Environment, and Reclamation/Corps direct-funded. Construction bonds included in the generation study are the portions of bonds that fund furniture, information technology (IT) hardware and software for PS. (Construction bonds are also issued to fund capital expenditures of the transmission function including IT hardware and software and furniture.) Conservation bonds, which will no longer be issued after the conclusion of FY 2015, are used to fund investments in energy efficiency projects. Fish and Wildlife bonds are issued to fund the capital portion of BPA's Fish and Wildlife program. Environment bonds are issued to fund work done by the Transmission Business Line and are not included in the generation repayment study. BPA also issues bonds to fund Reclamation/Corps generation efficiency and reliability improvements. All bonds projected for issuance have been entered into the generation repayment study.

BPA no longer issues conservation bonds to fund the capital portion of BPA's conservation program. Instead, the program is treated as a current year expense.

Reclamation/Corps direct funding bonds have a maximum maturity of 30 years although they may be issued for shorter durations or refinanced up to a maximum maturity of45 years. Construction bonds are given a maximum repayment period of 6 years. Conservation bonds, issued through FY 2015, have a maximum maturity of 12 years. Fish and Wildlife bondshave a maximum maturity of 15 years.

New bonds are based on projected BPA and Reclamation/Corps capital program outlays. Maturities reflect decisions about debt placement. The assignment practices for interest rates are discussed in Chapter 2 of the Study. The interest rates used are in Chapter 6 of this document.

Table 7A

BPA Projected Generation Federal Borrowing
FY 2017 - 2019
($000s)

	FY	A Description	B Interest Rate	C Term	D Total Borrowing
1	**2017**	Bureau of Reclamation	3.81%	15	16,000
2		Bureau of Reclamation	3.89%	17	16,000
3		Bureau of Reclamation	3.97%	19	16,000
4		Corps of Engineers	3.85%	16	55,000
5		Corps of Engineers	3.93%	18	55,000
6		Corps of Engineers	4.01%	20	55,000
7		Fish and Wildlife	3.81%	15	45,000
8		Power Agency Services	3.12%	6	5,250
9		Technology	3.00%	5	5,000
10		**TOTAL**			**268,250**
11					
12	**2018**	Bureau of Reclamation	4.32%	20	28,000
13		Bureau of Reclamation	4.38%	22	28,000
14		Bureau of Reclamation	4.44%	24	28,000
15		Power Agency Services	3.70%	6	5,950
16		Corps of Engineers	4.35%	21	53,000
17		Corps of Engineers	4.41%	23	53,000
18		Corps of Engineers	4.47%	25	52,000
19		Fish and Wildlife	4.16%	15	51,000
20		Technology	3.63%	5	5,000
21		**TOTAL**			**303,950**
22					
23	**2019**	Bureau of Reclamation	4.53%	25	47,000
24		Bureau of Reclamation	4.59%	27	47,000
25		Bureau of Reclamation	4.65%	29	47,000
26		Power Agency Services	3.89%	6	5,950
27		Corps of Engineers	4.56%	26	41,000
28		Corps of Engineers	4.62%	28	41,000
29		Corps of Engineers	4.67%	30	41,000
30		Fish and Wildlife	4.25%	15	44,000
31		Technology	3.83%	5	5,000
32		**TOTAL**			**318,950**

8. CAPITALIZED CONTRACTS AND OTHER LONG TERM RESOURCE ACQUISITION OBLIGATIONS

8.1 Introduction

This chapter documents the data on third-party debt service or payment costs associated with capitalized contracts and other long-term, fixed contractual obligations. This chapter does not include replacements for the Columbia Generating Station (CGS). This information is included in Chapter 10 of this document.

8.2 Methodology

To determine debt service streams for EN Nuclear Projects WNP-1, CGS, and WNP-3, BPA uses a commercial municipal bond debt management model, DBC Debt Manager. All base debt service streams shown in Tables 8A are based on the amount of non-Federal debt outstanding. The debt service streams reflect all EN refinancings to date and projected CGS capital investments. CGS debt service is displayed net of anticipated revenues expected from the Tennessee Valley Authority for the purchase of nuclear fuel from EN. Debt service streams are derived from such sources as Official Statements, Agency agreements, Agency contracts, and budgetary data.

Table 8A
Capitalized Contracts
($000s)

		A	B	C	D	E	F	G	H	I	J	K	L	M
		2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
1	WNP-1	65,552	194,931	222,665	36,700	37,335	36,359	36,359	36,359	36,359	105,719	274,821	154,121	186,704
2	CGS	127,205	143,363	477,983	413,823	532,743	463,086	451,180	425,422	373,166	299,871	72,280	73,059	80,516
3	CGS Adjustments	**(15,876)**	**(4,387)**	**(4,387)**	**(4,387)**	**(4,387)**	**(4,331)**	**(4,102)**	**(3,859)**	**(3,484)**	**(2,201)**	**-**	**-**	**-**
4	CGS Expenses	(454)	(413)	(11,832)	(2,813)	179	176	175	173	172	128	-	-	-
5	TVA Revenue Offset	(17,510)	(58,618)	(58,881)	(178,250)	(189,500)	(72,500)	(81,000)	(49,500)	-	-	-	-	-
6	CGS Total	93,365	79,944	402,882	228,372	339,035	386,431	366,252	372,237	369,853	297,797	72,280	73,059	80,516
7	WNP-3	99,934	170,427	276,900	372,051	24,789	23,760	23,760	23,760	23,760	32,856	102,224	218,769	174,650
8	Wasco	**1,931**	**1,929**	**1,935**	**1,934**	**1,932**	**1,937**	**1,948**	**1,950**	**1,947**	**1,947**	**331**	**-**	**-**
9	Cowlitz	7,288	7,300	7,303	7,302	7,304	7,301	7,300	7,299	7,303	7,301	7,302	7,300	7,304
10	Total	646,360	410,394	455,789	435,619	441,605	439,222	445,621	456,957	453,248	449,174	462,940	202,884	340,637

9. IRRIGATION ASSISTANCE

9.1 Introduction

This chapter documents the irrigation construction costs for Federal reclamation projects in the Pacific Northwest that the FCRPS has an obligation to repay. These payments, known as irrigation assistance, have been included in the repayment study.

9.2 Background

In an effort to encourage settlement of the arid and semiarid lands of the Western United States, the 1902 Reclamation Act created the Reclamation to develop water resources for irrigation. The 1902 Reclamation Act provided that irrigators using the reclamation projects had 10 years to repay the construction costs of such projects. Title to the reclamation projects, however, remained with the Federal government even after all construction costs were repaid.

By the 1920s, a 10-year repayment period for irrigators was determined to be economically unrealistic. After several leniency acts and extensions, Congress passed the 1939 Reclamation Act, which changed the repayment period on reclamation projects to 40 years after a 10-year development period. Later revisions and project-specific legislation extended repayment periods for most reclamation projects to 50 years after a 10-year development period. However, the Kennewick project has a 66-year repayment period.

Originally, irrigators were responsible for repaying all project construction costs without interest. However, hydropower is a by-product of many reclamation projects and not all of the power generated is needed for irrigation works. As early as the Town Sites and Power Development Act (April 16, 1906, ch. 1631, 34 Stat. 116) Congress authorized Reclamation to lease surplus power and use the proceeds to repay part of the costs of the reclamation projects.

The concept of power revenues contributing to the repayment of Reclamation's multipurpose projects evolved to the current policy, in which power revenues are used to repay that portion of the project construction costs allocated to irrigation use that are beyond the irrigators' "ability to repay." Moreover, the costs to be repaid by power revenues, known as irrigation assistance, are to be repaid without interest. Reclamation has the responsibility to make the determination of the amount that is beyond the irrigators' "ability to repay" through a farm budget analysis. The results of this analysis are used to establish the irrigators' repayment responsibility. The irrigators, as an irrigation district, and Reclamation formalize this repayment responsibility in irrigation contracts.

9.3 Irrigation Repayment

In the Pacific Northwest, the Third Powerplant, Grand Coulee Dam legislation, P.L. 89-448, authorized repayment of the irrigation assistance costs from net revenues of the entire FCRPS. There are, however, limitations on the FCRPS's repayment responsibility. These limitations were added in amendment to the Third Powerplant, Grand Coulee Dam legislation, P.L. 89-561, and apply to reclamation projects, including projects not previously receiving similar assistance, which are authorized to receive such assistance, for which construction was authorized after September 7, 1966.

The irrigation assistance for such projects is to be paid only from net revenues of the power system. Net revenues are defined as those revenues over and above the amount needed to recover all costs allocated to power, including the cost of acquiring power by purchase or exchange, and previously authorized irrigation assistance. The construction of such projects shall be scheduled so that the repayment of the irrigation assistance associated with such projects from power revenues will not require an increase in BPA's power rates.

The total of all irrigation assistance to be repaid from power revenues shall not average more than $30 million per year in any period of 20 consecutive years.

Reclamation provides BPA with the irrigation assistance to be repaid from each reclamation project. The current generation repayment study includes information provided in July 2008. Because irrigation assistance costs are repaid without interest and BPA repays highest interest-bearing investment first, irrigation assistance is generally scheduled to be repaid in the last year of the repayment period for each reclamation project.

Table 9A
Irrigation Assistance by Project
($000s)

		A	B	C
	Fiscal Year Due	**Project**	**Amount**	**Total**
1	**2017**	Columbia Basin	48,617	
2		Greater Wenatchee	1,073	
3		Yakima, Roza	1,078	
4	**2017 Total:**			**50,769**
5	**2018**	Columbia Basin	25,782	
6		Foster Creek	683	
7		Yakima, Roza	770	
8	**2018 Total:**			**27,234**
9	**2019**	Columbia Basin	50,733	
10		Foster Creek	1,114	
11		Michaud Flats	2,081	
12		Michaud-Fort Hall	2,081	
13		Yakima, Roza	564	
14	**2019 Total:**			**56,573**
15	**2020**	Columbia Basin	21,938	
16		Crooked River	2,380	
17	**2020 Total:**			**24,317**
18	**2021**	Columbia Basin	12,660	
19		Yakima, Roza	2,087	
20	**2021 Total:**			**14,747**
21	**2022**	Columbia Basin	15,437	
22		Yakima, Roza	623	
23	**2022 Total:**			**16,060**
24	**2023**	Columbia Basin	9,755	
25		Rogue River	3,091	
26	**2023 Total:**			**12,846**
27	**2024**	Columbia Basin	7,777	
28		Greater Wenatchee	1,961	
29		Yakima, Kennewick	5,379	
30	**2024 Total:**			**15,117**
31	**2025**	Columbia Basin	12,421	
32		Crooked River Ext	1,122	
33	**2025 Total:**			**13,543**
34	**2026**	Columbia Basin	12,883	
35		Greater Wenatchee	930	
36		Whitestone Coulee Unit	3,810	
37		Yakima, Roza	3,133	
38	**2026 Total:**			**20,755**
39	**2027**	Columbia Basin	3,924	
40		Rogue River	2,194	
41	**2027 Total:**			**6,118**
42	**2028**	Columbia Basin	6,983	
43		The Dalles	4,204	
44	**2028 Total:**			**11,186**
45	**2029**	Baker	4,065	

Table 9A
Irrigation Assistance by Project
($000s)

		A	B	C
	Fiscal Year Due	**Project**	**Amount**	**Total**
46	**2029 Total:**			**4,065**
47	**2030**	East Greenacres-Rathdrum	1,996	
48	**2030 Total:**			**1,996**
49	**2031**	Columbia Basin	10,524	
50	**2031 Total:**			**10,524**
51	**2033**	Rogue River	4,347	
52	**2033 Total:**			**4,347**
53	**2035**	Columbia Basin	7,761	
54	**2035 Total:**			**7,761**
55	**2036**	Manson Unit	16,163	
56		Tualatin	9,098	
57		Whitestone Coulee Unit	3,660	
58	**2036 Total:**			**28,920**
59	**2037**	Columbia Basin	12,067	
60		East Greenacres-Rathdrum	3,711	
61	**2037 Total:**			**15,778**
62	**2039**	Tualatin	14,181	
63	**2039 Total:**			**14,181**
64	**2042**	Oroville Tonasket	73,659	
65	**2042 Total:**			**73,659**
66	**2045**	Columbia Basin	11,579	
67	**2045 Total:**			**11,579**
68				
69	**Grand Total:**			**442,075**

Note: Assistance for Lower Teton, $40,273, is not included in this list, as it was never completed. Therefore the Administrator has no obligation to recover the cost.

10. REPLACEMENTS PROJECTED AFTER THE COST EVALUATION PERIOD

10.1 Introduction

This chapter documents the process used to develop the capital investments necessary to maintain the existing Federal generating projects at their current operating level during the repayment period. This chapter also includes replacement costs for CGS. Replacement forecasts are included in repayment studies as required by RA 6120.2.

10.2 Methodology

The repayment study incorporates a schedule of Federal investment with the replacements that are expected to occur over the repayment period for existing generation projects. This schedule, expressed in mid-year dollars for each repayment study, FY 2014 and 2015, is based on the amount of investment in the generating projects for the Corps and Reclamation through the end of the cost evaluation period.

Replacements are based on data provided by BPA's Federal Hydro Projects group, the organization responsible for managing the capital program that funds Corps and Reclamation powerhouse replacements. They prepare a project-by-project analysis of future funding requirements extending far into the future. The data are adjusted for several factors. First, adjustments are made to remove the effect of gaining efficiencies from replacing old equipment. The BPA Federal Hydro Projects group estimates that 12.5 percent of total costs reflect upgrades for efficiencies. Second, , replacements exclude the portion of the budget for "small capital," those investments outside of the powerhouses.

A schedule of replacement investments for CGS is based on the original investment adjusted by the use of the Handy-Whitman indices for a nuclear power plant. The Handy-Whitman Index is widely used in industry for estimating replacement costs for plant. The result of this calculation was converted into a mortgage-style investment with payments sufficient to retire the replacement cost in 35 years.

Table 10A
Corps/Reclamation Replacments (FY 2016)
($000s)

	A	B	C	D
	In Service Date	Principal	Interest Rate	Due Date
1	2019	219,724	4.630%	2064
2	2020	219,724	4.630%	2065
3	2021	219,724	4.630%	2066
4	2022	219,724	4.630%	2067
5	2023	219,724	4.630%	2068
6	2024	219,724	4.630%	2069
7	2025	219,724	4.630%	2070
8	2026	219,724	4.630%	2071
9	2027	219,724	4.630%	2072
10	2028	219,724	4.630%	2073
11	2029	219,724	4.630%	2074
12	2030	219,724	4.630%	2075
13	2031	219,724	4.630%	2076
14	2032	219,724	4.630%	2077
15	2033	219,724	4.630%	2078
16	2034	219,724	4.630%	2079
17	2035	219,724	4.630%	2080
18	2036	219,724	4.630%	2081
19	2037	219,724	4.630%	2082
20	2038	219,724	4.630%	2083
21	2039	219,724	4.630%	2084
22	2040	219,724	4.630%	2085
23	2041	219,724	4.630%	2086
24	2042	219,724	4.630%	2087
25	2043	219,724	4.630%	2088
26	2044	219,724	4.630%	2089
27	2045	219,724	4.630%	2090
28	2046	219,724	4.630%	2091
29	2047	219,724	4.630%	2092
30	2048	219,724	4.630%	2093
31	2049	219,724	4.630%	2094
32	2050	219,724	4.630%	2095
33	2051	219,724	4.630%	2096
34	2052	219,724	4.630%	2097
35	2053	219,724	4.630%	2098
36	2054	219,724	4.630%	2099
37	2055	219,724	4.630%	2100
38	2056	219,724	4.630%	2101
39	2057	219,724	4.630%	2102
40	2058	219,724	4.630%	2103
41	2059	219,724	4.630%	2104
42	2060	219,724	4.630%	2105
43	2061	219,724	4.630%	2106
44	2062	219,724	4.630%	2107
45	2063	219,724	4.630%	2108
46	2064	219,724	4.630%	2109
47	2065	219,724	4.630%	2110
48	2066	219,724	4.630%	2111
49	2067	219,724	4.630%	2112
50	2068	219,724	4.630%	2113

Table 10B
Corps/Reclamation Replacements (FY 2017)
($000s)

	A	B	C	D
	In Service Date	Principal	Interest Rate	Due Date
1	2020	218,435	4.670%	2065
2	2021	218,435	4.670%	2066
3	2022	218,435	4.670%	2067
4	2023	218,435	4.670%	2068
5	2024	218,435	4.670%	2069
6	2025	218,435	4.670%	2070
7	2026	218,435	4.670%	2071
8	2027	218,435	4.670%	2072
9	2028	218,435	4.670%	2073
10	2029	218,435	4.670%	2074
11	2030	218,435	4.670%	2075
12	2031	218,435	4.670%	2076
13	2032	218,435	4.670%	2077
14	2033	218,435	4.670%	2078
15	2034	218,435	4.670%	2079
16	2035	218,435	4.670%	2080
17	2036	218,435	4.670%	2081
18	2037	218,435	4.670%	2082
19	2038	218,435	4.670%	2083
20	2039	218,435	4.670%	2084
21	2040	218,435	4.670%	2085
22	2041	218,435	4.670%	2086
23	2042	218,435	4.670%	2087
24	2043	218,435	4.670%	2088
25	2044	218,435	4.670%	2089
26	2045	218,435	4.670%	2090
27	2046	218,435	4.670%	2091
28	2047	218,435	4.670%	2092
29	2048	218,435	4.670%	2093
30	2049	218,435	4.670%	2094
31	2050	218,435	4.670%	2095
32	2051	218,435	4.670%	2096
33	2052	218,435	4.670%	2097
34	2053	218,435	4.670%	2098
35	2054	218,435	4.670%	2099
36	2055	218,435	4.670%	2100
37	2056	218,435	4.670%	2101
38	2057	218,435	4.670%	2102
39	2058	218,435	4.670%	2103
40	2059	218,435	4.670%	2104
41	2060	218,435	4.670%	2105
42	2061	218,435	4.670%	2106
43	2062	218,435	4.670%	2107
44	2063	218,435	4.670%	2108
45	2064	218,435	4.670%	2109
46	2065	218,435	4.670%	2110
47	2066	218,435	4.670%	2111
48	2067	218,435	4.670%	2112
49	2068	218,435	4.670%	2113
50	2069	218,435	4.670%	2114

Table 10C
Columbia Generating Station Replacements
($000s)

	A	B
	Fiscal Year	Total Debt Service
1	2045	489,037
2	2046	489,034
3	2047	489,038
4	2048	489,035
5	2049	489,036
6	2050	489,036
7	2051	489,035
8	2052	489,035
9	2053	489,035
10	2054	489,036
11	2055	489,037
12	2056	489,034
13	2057	489,034
14	2058	489,033
15	2059	489,039
16	2060	489,037
17	2061	489,038
18	2062	489,035
19	2063	489,035
20	2064	489,038
21	2065	489,035
22	2066	489,034
23	2067	489,038
24	2068	489,034
25	2069	489,035
26	2070	489,034
27	2071	489,034
28	2072	489,038
29	2073	489,036
30	2074	489,036
31	2075	489,038
32	2076	489,036
33	2077	489,034
34	2078	489,033
35	2079	489,034
36	2080	462,225
37	2081	462,225
38	2082	462,225
39	2083	462,225
40	2084	462,225
41	2085	462,225
42	2086	462,225
43	2087	462,225
44	2088	462,225
45	2089	462,225
46	2090	462,225
47	2091	462,225
48	2092	462,225
49	2093	462,225
50	2094	462,225

11. REPAYMENT STUDY DATA, FY 2018 STUDY

TABLE 11A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2018 Cost Evaluation period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1	Albeni Falls	09/1955	09/2005	6.910%	25,494	0		
2	Albeni Falls	09/1956	09/2005	6.910%	11	0		
3	Albeni Falls	09/1957	09/2005	6.910%	10	0		
4	Albeni Falls	09/1958	09/2005	6.910%	11	0		
5	Albeni Falls	09/1959	09/2005	6.910%	11	0		
6	Albeni Falls	09/1960	09/2005	6.910%	10	0		
7	Albeni Falls	09/1961	09/2005	6.910%	11	0		
8	Albeni Falls	09/1962	09/2005	6.910%	11	0		
9	Albeni Falls	09/1963	09/2005	6.910%	10	0		
10	Albeni Falls	09/1964	09/2005	6.910%	11	0		
11	Albeni Falls	09/1965	09/2005	6.910%	11	0		
12	Albeni Falls	09/1966	09/2005	6.910%	10	0		
13	Albeni Falls	09/1967	09/2005	6.910%	11	0		
14	Albeni Falls	09/1968	09/2005	6.910%	11	0		
15	Albeni Falls	09/1969	09/2005	6.910%	10	0		
16	Albeni Falls	09/1970	09/2005	6.910%	11	0		
17	Albeni Falls	09/1971	09/2005	6.910%	11	0		
18	Albeni Falls	09/1972	09/2005	6.910%	10	0		
19	Albeni Falls	09/1973	09/2005	6.910%	11	0		
20	Albeni Falls	09/1974	09/2005	6.910%	11	0		
21	Albeni Falls	09/1975	09/2005	6.910%	10	0		
22	Albeni Falls	09/1976	09/2005	6.910%	11	0		
23	Albeni Falls	09/1977	09/2005	6.910%	11	0		
24	Albeni Falls	09/1978	09/2005	6.910%	10	0		
25	Albeni Falls	09/1979	09/2005	6.910%	11	0		
26	Albeni Falls	09/1980	09/2005	6.910%	11	0		
27	Albeni Falls	09/1981	09/2005	6.910%	10	0		
28	Albeni Falls	09/1982	09/2005	6.910%	11	0		
29	Albeni Falls	09/1983	09/2005	6.910%	11	0		
30	Albeni Falls	09/1985	09/2005	6.910%	7	0		
31	Albeni Falls	09/1986	09/2005	6.910%	293	0		
32	Albeni Falls	09/1987	09/2005	6.910%	12	0		
33	Albeni Falls	09/1987	09/2005	8.888%	15	0		
34	Albeni Falls	09/1988	09/2005	8.500%	328	0		
35	Albeni Falls	09/1989	09/2005	9.250%	221	0		
36	Albeni Falls	09/1990	09/2005	8.875%	1,287	0		
37	Albeni Falls	09/1991	09/2005	8.750%	43	0		
38	Albeni Falls	09/1991	09/2005	8.750%	111	0		
39	Albeni Falls	09/1992	09/2005	8.500%	7	0		
40	Albeni Falls	09/1992	09/2005	8.500%	106	0		
41	Albeni Falls	09/1993	09/2005	7.875%	295	0		
42	Albeni Falls	09/1993	09/2005	7.875%	714	0		
43	Albeni Falls	09/1994	09/2019	7.125%	61	0		
44	Albeni Falls	09/1994	09/2019	7.125%	173	0		
45	Albeni Falls	09/1995	09/2010	7.090%	17	0		
46	Albeni Falls	09/1995	09/2010	7.890%	51	0		
47	Albeni Falls	09/1995	09/2045	7.150%	443	443		
48	Albeni Falls	09/1995	09/2045	7.150%	531	531		
49	Albeni Falls	09/1995	09/2045	7.150%	1,105	1,105		
50	Albeni Falls	09/1996	09/2016	7.290%	130	0		
51	Albeni Falls	09/1997	09/2047	7.150%	431	431		
52	Albeni Falls	09/2005	09/2055	5.125%	481	481		
53	Albeni Falls	09/2009	09/2059	4.375%	57	57		
54	Albeni Falls	09/2010	09/2060	4.250%	42	42		
55	Boise	09/1912	09/1962	3.000%	1,249	0		
56	Boise	09/1912	09/1962	3.000%	285	0		
57	Boise	09/1926	09/1976	3.000%	190	0		
58	Boise	09/1926	09/1976	3.000%	832	0		
59	Boise	09/1950	09/2000	3.000%	416	0		
60	Boise	09/1950	09/2000	3.000%	95	0		
61	Boise	09/1951	09/2001	3.000%	1,873	0		
62	Boise	09/1951	09/2001	3.000%	428	0		
63	Boise	09/1952	09/2001	3.000%	11	0		
64	Boise	09/1952	09/2001	3.000%	3	0		
65	Boise	09/1953	09/2001	3.000%	11	0		
66	Boise	09/1953	09/2001	3.000%	3	0		
67	Boise	09/1954	09/2001	3.000%	11	0		
68	Boise	09/1954	09/2001	3.000%	3	0		
69	Boise	09/1955	09/2001	3.000%	11	0		
70	Boise	09/1955	09/2001	3.000%	3	0		
71	Boise	09/1956	09/2001	3.000%	11	0		
72	Boise	09/1956	09/2001	3.000%	3	0		
73	Boise	09/1957	09/2001	3.000%	11	0		
74	Boise	09/1957	09/2001	3.000%	3	0		
75	Boise	09/1958	09/2001	3.000%	11	0		
76	Boise	09/1958	09/2001	3.000%	3	0		
77	Boise	09/1959	09/2001	3.000%	11	0		
78	Boise	09/1959	09/2001	3.000%	3	0		
79	Boise	09/1960	09/2001	3.000%	11	0		
80	Boise	09/1960	09/2001	3.000%	3	0		
81	Boise	09/1961	09/2001	3.000%	11	0		
82	Boise	09/1961	09/2001	3.000%	3	0		

TABLE 11A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2018 Cost Evaluation period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
83	Boise	09/1962	09/2001	3.000%	11	0		
84	Boise	09/1962	09/2001	3.000%	3	0		
85	Boise	09/1963	09/2001	3.000%	11	0		
86	Boise	09/1963	09/2001	3.000%	3	0		
87	Boise	09/1964	09/2001	3.000%	11	0		
88	Boise	09/1964	09/2001	3.000%	3	0		
89	Boise	09/1965	09/2001	3.000%	11	0		
90	Boise	09/1965	09/2001	3.000%	3	0		
91	Boise	09/1966	09/2001	3.000%	11	0		
92	Boise	09/1966	09/2001	3.000%	3	0		
93	Boise	09/1967	09/2001	3.000%	11	0		
94	Boise	09/1967	09/2001	3.000%	3	0		
95	Boise	09/1968	09/2001	3.000%	11	0		
96	Boise	09/1968	09/2001	3.000%	3	0		
97	Boise	09/1969	09/2001	3.000%	11	0		
98	Boise	09/1969	09/2001	3.000%	3	0		
99	Boise	09/1970	09/2001	3.000%	11	0		
100	Boise	09/1970	09/2001	3.000%	3	0		
101	Boise	09/1971	09/2001	3.000%	11	0		
102	Boise	09/1971	09/2001	3.000%	3	0		
103	Boise	09/1972	09/2001	3.000%	11	0		
104	Boise	09/1972	09/2001	3.000%	3	0		
105	Boise	09/1973	09/2001	3.000%	11	0		
106	Boise	09/1973	09/2001	3.000%	3	0		
107	Boise	09/1974	09/2001	3.000%	11	0		
108	Boise	09/1974	09/2001	3.000%	3	0		
109	Boise	09/1975	09/2001	3.000%	11	0		
110	Boise	09/1975	09/2001	3.000%	3	0		
111	Boise	09/1976	09/2001	3.000%	11	0		
112	Boise	09/1976	09/2001	3.000%	3	0		
113	Boise	09/1977	09/2001	3.000%	11	0		
114	Boise	09/1977	09/2001	3.000%	3	0		
115	Boise	09/1978	09/2001	3.000%	11	0		
116	Boise	09/1978	09/2001	3.000%	3	0		
117	Boise	09/1979	09/2001	3.000%	11	0		
118	Boise	09/1979	09/2001	3.000%	3	0		
119	Boise	09/1980	09/2001	3.000%	18	0		
120	Boise	09/1980	09/2001	3.000%	4	0		
121	Boise	09/1981	09/2001	3.000%	8	0		
122	Boise	09/1981	09/2001	3.000%	2	0		
123	Boise	09/1982	09/2001	3.000%	1	0		
124	Boise	09/1982	09/2001	3.000%	1	0		
125	Boise	09/1983	09/2001	3.000%	1	0		
126	Boise	09/1984	09/2001	10.750%	1,325	0		
127	Boise	09/1984	09/2001	10.750%	303	0		
128	Boise	09/1986	09/2001	6.710%	94	0		
129	Boise	09/1988	09/2001	8.500%	3	0		
130	Boise	09/1989	09/2001	9.250%	3,264	0		
131	Boise	09/1990	09/2001	8.875%	38	0		
132	Boise	09/1991	09/2001	8.750%	50	0		
133	Boise	09/1993	09/2001	7.875%	418	0		
134	Boise	09/1994	09/1999	7.125%	7	0		
135	Boise	09/1996	09/2046	6.950%	7	0		
136	Boise	09/1996	09/2046	7.150%	442	442		
137	Boise	09/1996	09/2046	7.150%	656	656		
138	Boise	09/1997	09/2047	6.950%	9	0		
139	Boise	09/1997	09/2047	7.150%	2,266	2,266		
140	Boise	09/2005	09/2055	5.125%	903	903		
141	Boise	09/2006	09/2056	4.500%	15	15		
142	Boise	09/2007	09/2057	5.000%	76	76		
143	Boise	09/2008	09/2058	4.875%	64	64		
144	Boise	09/2009	09/2059	4.375%	2	2		
145	Boise	09/2015	09/2065	3.250%	5	5		
146	Bonneville 2nd Powerhouse	09/1981	09/2031	7.150%	40,964	40,964		
147	Bonneville 2nd Powerhouse	09/1981	09/2031	7.150%	455	455		
148	Bonneville 2nd Powerhouse	09/1982	09/2032	7.150%	203,535	203,535		
149	Bonneville 2nd Powerhouse	09/1982	09/2032	7.150%	2,264	2,264		
150	Bonneville 2nd Powerhouse	09/1983	09/2033	7.150%	62,409	62,409		
151	Bonneville 2nd Powerhouse	09/1983	09/2033	7.150%	694	694		
152	Bonneville 2nd Powerhouse	09/1985	09/2033	7.150%	9,138	9,138		
153	Bonneville 2nd Powerhouse	09/1986	09/2033	7.150%	30,578	30,578		
154	Bonneville 2nd Powerhouse	09/1987	09/2033	7.150%	2,801	2,801		
155	Bonneville 2nd Powerhouse	09/1988	09/2033	7.150%	1,271	1,271		
156	Bonneville 2nd Powerhouse	09/1989	09/2033	7.150%	1,232	1,232		
157	Bonneville 2nd Powerhouse	09/1990	09/2033	7.150%	1,588	1,588		
158	Bonneville 2nd Powerhouse	09/1991	09/2033	8.750%	3,998	0		
159	Bonneville 2nd Powerhouse	09/1991	09/2033	8.750%	26	0		
160	Bonneville 2nd Powerhouse	09/1992	09/2033	8.500%	2,446	0		
161	Bonneville 2nd Powerhouse	09/1993	09/2033	7.875%	3,668	0		
162	Bonneville 2nd Powerhouse	09/1994	09/2044	7.150%	5,700	5,700		
163	Bonneville 2nd Powerhouse	09/1995	09/2045	7.150%	3,791	3,791		
164	Bonneville 2nd Powerhouse	09/1996	09/2046	7.150%	376	376		

TABLE 11A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2018 Cost Evaluation period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
165	Bonneville Dam	09/1938	09/1988	2.500%	11,726	0		
166	Bonneville Dam	09/1938	09/1988	2.500%	130	0		
167	Bonneville Dam	09/1941	09/1991	2.500%	17,589	0		
168	Bonneville Dam	09/1941	09/1991	2.500%	196	0		
169	Bonneville Dam	09/1942	09/1992	2.500%	5,863	0		
170	Bonneville Dam	09/1942	09/1992	2.500%	65	0		
171	Bonneville Dam	09/1943	09/1993	2.500%	17,589	0		
172	Bonneville Dam	09/1943	09/1993	2.500%	196	0		
173	Bonneville Dam	09/1944	09/1994	2.500%	5,860	0		
174	Bonneville Dam	09/1944	09/1994	2.500%	65	0		
175	Bonneville Dam	09/1945	09/1994	2.500%	82	0		
176	Bonneville Dam	09/1945	09/1994	2.500%	1	0		
177	Bonneville Dam	09/1946	09/1994	2.500%	81	0		
178	Bonneville Dam	09/1946	09/1994	2.500%	1	0		
179	Bonneville Dam	09/1947	09/1994	2.500%	82	0		
180	Bonneville Dam	09/1947	09/1994	2.500%	1	0		
181	Bonneville Dam	09/1948	09/1994	2.500%	81	0		
182	Bonneville Dam	09/1948	09/1994	2.500%	1	0		
183	Bonneville Dam	09/1949	09/1994	2.500%	82	0		
184	Bonneville Dam	09/1949	09/1994	2.500%	1	0		
185	Bonneville Dam	09/1950	09/1994	2.500%	81	0		
186	Bonneville Dam	09/1950	09/1994	2.500%	11	0		
187	Bonneville Dam	09/1951	09/1994	2.500%	81	0		
188	Bonneville Dam	09/1951	09/1994	2.500%	11	0		
189	Bonneville Dam	09/1952	09/1994	2.500%	82	0		
190	Bonneville Dam	09/1952	09/1994	2.500%	1	0		
191	Bonneville Dam	09/1953	09/1994	2.500%	81	0		
192	Bonneville Dam	09/1953	09/1994	2.500%	1	0		
193	Bonneville Dam	09/1954	09/1994	2.500%	82	0		
194	Bonneville Dam	09/1954	09/1994	2.500%	1	0		
195	Bonneville Dam	09/1955	09/1994	2.500%	81	0		
196	Bonneville Dam	09/1955	09/1994	2.500%	1	0		
197	Bonneville Dam	09/1956	09/1994	2.500%	81	0		
198	Bonneville Dam	09/1956	09/1994	2.500%	1	0		
199	Bonneville Dam	09/1957	09/1994	2.500%	82	0		
200	Bonneville Dam	09/1957	09/1994	2.500%	1	0		
201	Bonneville Dam	09/1958	09/1994	2.500%	81	0		
202	Bonneville Dam	09/1958	09/1994	2.500%	1	0		
203	Bonneville Dam	09/1959	09/1994	2.500%	82	0		
204	Bonneville Dam	09/1959	09/1994	2.500%	1	0		
205	Bonneville Dam	09/1960	09/1994	2.500%	81	0		
206	Bonneville Dam	09/1960	09/1994	2.500%	1	0		
207	Bonneville Dam	09/1961	09/1994	2.500%	81	0		
208	Bonneville Dam	09/1961	09/1994	2.500%	1	0		
209	Bonneville Dam	09/1962	09/1994	2.500%	82	0		
210	Bonneville Dam	09/1962	09/1994	2.500%	1	0		
211	Bonneville Dam	09/1963	09/1994	2.500%	81	0		
212	Bonneville Dam	09/1963	09/1994	2.500%	1	0		
213	Bonneville Dam	09/1964	09/1994	2.500%	82	0		
214	Bonneville Dam	09/1964	09/1994	2.500%	1	0		
215	Bonneville Dam	09/1965	09/1994	2.500%	81	0		
216	Bonneville Dam	09/1965	09/1994	2.500%	1	0		
217	Bonneville Dam	09/1966	09/1994	2.500%	81	0		
218	Bonneville Dam	09/1966	09/1994	2.500%	1	0		
219	Bonneville Dam	09/1967	09/1994	2.500%	82	0		
220	Bonneville Dam	09/1967	09/1994	2.500%	1	0		
221	Bonneville Dam	09/1968	09/1994	2.500%	81	0		
222	Bonneville Dam	09/1968	09/1994	2.500%	1	0		
223	Bonneville Dam	09/1969	09/1994	2.500%	82	0		
224	Bonneville Dam	09/1969	09/1994	2.500%	1	0		
225	Bonneville Dam	09/1970	09/1994	2.500%	81	0		
226	Bonneville Dam	09/1970	09/1994	2.500%	1	0		
227	Bonneville Dam	09/1971	09/1994	2.500%	81	0		
228	Bonneville Dam	09/1971	09/1994	2.500%	1	0		
229	Bonneville Dam	09/1972	09/1994	2.500%	82	0		
230	Bonneville Dam	09/1972	09/1994	2.500%	1	0		
231	Bonneville Dam	09/1973	09/1994	2.500%	81	0		
232	Bonneville Dam	09/1973	09/1994	2.500%	1	0		
233	Bonneville Dam	09/1974	09/1994	2.500%	82	0		
234	Bonneville Dam	09/1974	09/1994	2.500%	1	0		
235	Bonneville Dam	09/1975	09/1994	2.500%	81	0		
236	Bonneville Dam	09/1975	09/1994	2.500%	1	0		
237	Bonneville Dam	09/1976	09/1994	2.500%	81	0		
238	Bonneville Dam	09/1976	09/1994	2.500%	1	0		
239	Bonneville Dam	09/1977	09/1994	2.500%	82	0		
240	Bonneville Dam	09/1977	09/1994	2.500%	1	0		
241	Bonneville Dam	09/1977	09/2027	7.150%	15,670	15,670		
242	Bonneville Dam	09/1978	09/1994	2.500%	81	0		
243	Bonneville Dam	09/1978	09/1994	2.500%	1	0		
244	Bonneville Dam	09/1979	09/1994	2.500%	82	0		
245	Bonneville Dam	09/1979	09/1994	2.500%	1	0		
246	Bonneville Dam	09/1980	09/1994	2.500%	81	0		

TABLE 11A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2018 Cost Evaluation period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
247	Bonneville Dam	09/1980	09/1994	2.500%	1	0		
248	Bonneville Dam	09/1981	09/1994	2.500%	81	0		
249	Bonneville Dam	09/1981	09/1994	2.500%	1	0		
250	Bonneville Dam	09/1982	09/1994	2.500%	82	0		
251	Bonneville Dam	09/1982	09/1994	2.500%	2	0		
252	Bonneville Dam	09/1983	09/1994	2.500%	81	0		
253	Bonneville Dam	09/1983	09/1994	2.500%	1	0		
254	Bonneville Dam	09/1984	09/1994	10.750%	873	0		
255	Bonneville Dam	09/1984	09/1994	10.750%	10	0		
256	Bonneville Dam	09/1985	09/1994	2.500%	119	0		
257	Bonneville Dam	09/1986	09/1994	2.500%	555	0		
258	Bonneville Dam	09/1986	09/1994	11.375%	454	0		
259	Bonneville Dam	09/1987	09/1994	2.500%	260	0		
260	Bonneville Dam	09/1987	09/1994	8.875%	26	0		
261	Bonneville Dam	09/1988	09/1994	8.500%	4,199	0		
262	Bonneville Dam	09/1988	09/1994	8.500%	10	0		
263	Bonneville Dam	09/1989	09/1994	9.250%	877	0		
264	Bonneville Dam	09/1990	09/1994	8.875%	519	0		
265	Bonneville Dam	09/1990	09/1994	8.875%	651	0		
266	Bonneville Dam	09/1991	09/1994	8.750%	35	0		
267	Bonneville Dam	09/1991	09/1994	8.750%	3,193	0		
268	Bonneville Dam	09/1992	09/1994	8.500%	99	0		
269	Bonneville Dam	09/1992	09/1994	8.500%	25	0		
270	Bonneville Dam	09/1993	09/2018	7.880%	5,011	0		
271	Bonneville Dam	09/1994	09/2029	7.125%	536	0		
272	Bonneville Dam	09/1995	09/2000	7.330%	8	0		
273	Bonneville Dam	09/1995	09/2010	7.090%	25	0		
274	Bonneville Dam	09/1995	09/2020	7.250%	20	0		
275	Bonneville Dam	09/1995	09/2020	7.250%	22	0		
276	Bonneville Dam	09/1995	09/2030	7.860%	53	0		
277	Bonneville Dam	09/1995	09/2035	7.860%	98	0		
278	Bonneville Dam	09/1995	09/2045	7.150%	243	243		
279	Bonneville Dam	09/1995	09/2045	7.150%	410	410		
280	Bonneville Dam	09/1995	09/2045	7.150%	440	440		
281	Bonneville Dam	09/1995	09/2045	7.860%	374	0		
282	Bonneville Dam	09/1996	09/2016	7.290%	834	0		
283	Bonneville Dam	09/1996	09/2031	7.150%	22	22		
284	Bonneville Dam	09/1996	09/2046	7.150%	18	18		
285	Bonneville Dam	09/1996	09/2046	7.150%	18	18		
286	Bonneville Dam	09/1996	09/2046	7.150%	80	80		
287	Bonneville Dam	09/1996	09/2046	7.150%	109	109		
288	Bonneville Dam	09/1996	09/2046	7.150%	142	142		
289	Bonneville Dam	09/1996	09/2046	7.150%	223	223		
290	Bonneville Dam	09/1996	09/2046	7.150%	751	751		
291	Bonneville Dam	09/1996	09/2046	7.150%	1,322	1,322		
292	Bonneville Dam	09/1997	09/2022	7.230%	122	0		
293	Bonneville Dam	09/1997	09/2032	7.150%	518	518		
294	Bonneville Dam	09/1997	09/2047	7.150%	161	161		
295	Bonneville Dam	09/1999	09/2049	5.375%	19,368	19,368		
296	Bonneville Dam	09/2000	09/2050	6.125%	24,446	24,446		
297	Bonneville Dam	09/2001	09/2051	5.875%	2,530	2,530		
298	Bonneville Dam	09/2002	09/2052	5.500%	448	448		
299	Bonneville Dam	09/2003	09/2053	5.125%	4,581	4,581		
300	Bonneville Dam	09/2004	09/2054	5.375%	26,741	26,741		
301	Bonneville Dam	09/2005	09/2055	5.125%	19,725	19,725		
302	Bonneville Dam	09/2006	09/2056	4.500%	2,628	2,628		
303	Bonneville Dam	09/2007	09/2057	5.000%	1,124	1,124		
304	Bonneville Dam	09/2008	09/2058	4.875%	14,609	14,609		
305	Bonneville Dam	09/2009	09/2059	4.375%	2,744	2,744		
306	Bonneville Dam	09/2010	09/2060	4.250%	1,425	1,425		
307	Bonneville Dam	09/2011	09/2061	3.750%	10,962	10,962		
308	Bonneville Dam	09/2013	09/2063	2.875%	268	268		
309	Bonneville Dam	09/2014	09/2064	3.875%				
310	Bonneville Dam	09/2015	09/2065	3.250%	102	102		
311	Chief Joseph	09/1955	09/2005	6.910%	29,164	0		
312	Chief Joseph	09/1956	09/2006	6.950%	13,643	0		
313	Chief Joseph	09/1957	09/2007	6.980%	39,586	0		
314	Chief Joseph	09/1958	09/2008	7.020%	31,901	0		
315	Chief Joseph	09/1959	09/2008	7.020%	223	0		
316	Chief Joseph	09/1960	09/2008	7.020%	223	0		
317	Chief Joseph	09/1961	09/2008	7.020%	223	0		
318	Chief Joseph	09/1962	09/2008	7.020%	223	0		
319	Chief Joseph	09/1963	09/2008	7.020%	224	0		
320	Chief Joseph	09/1964	09/2008	7.020%	223	0		
321	Chief Joseph	09/1965	09/2008	7.020%	223	0		
322	Chief Joseph	09/1966	09/2008	7.020%	223	0		
323	Chief Joseph	09/1967	09/2008	7.020%	223	0		
324	Chief Joseph	09/1968	09/2008	7.020%	224	0		
325	Chief Joseph	09/1969	09/2008	7.020%	223	0		
326	Chief Joseph	09/1970	09/2008	7.020%	223	0		
327	Chief Joseph	09/1971	09/2008	7.020%	223	0		
328	Chief Joseph	09/1972	09/2008	7.020%	223	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
329	Chief Joseph	09/1973	09/2008	7.020%	224	0		
330	Chief Joseph	09/1974	09/2008	7.020%	223	0		
331	Chief Joseph	09/1975	09/2008	7.020%	223	0		
332	Chief Joseph	09/1976	09/2008	7.020%	223	0		
333	Chief Joseph	09/1977	09/2008	7.020%	223	0		
334	Chief Joseph	09/1977	09/2027	7.150%	30,512	30,512		
335	Chief Joseph	09/1978	09/2008	7.020%	224	0		
336	Chief Joseph	09/1978	09/2028	7.150%	75,669	75,669		
337	Chief Joseph	09/1979	09/2008	7.020%	223	0		
338	Chief Joseph	09/1979	09/2029	7.150%	60,079	60,079		
339	Chief Joseph	09/1980	09/2008	7.020%	223	0		
340	Chief Joseph	09/1981	09/2008	7.020%	223	0		
341	Chief Joseph	09/1982	09/2008	7.020%	223	0		
342	Chief Joseph	09/1983	09/2008	7.020%	224	0		
343	Chief Joseph	09/1984	09/2008	10.750%	909	0		
344	Chief Joseph	09/1985	09/2008	7.020%	46	0		
345	Chief Joseph	09/1985	09/2029	7.150%	16,372	16,372		
346	Chief Joseph	09/1986	09/2029	7.150%	5,363	5,363		
347	Chief Joseph	09/1987	09/2008	8.875%	104	0		
348	Chief Joseph	09/1987	09/2029	7.150%	3,036	3,036		
349	Chief Joseph	09/1988	09/2029	7.150%	2,722	2,722		
350	Chief Joseph	09/1989	09/2008	9.250%	327	0		
351	Chief Joseph	09/1989	09/2029	7.150%	2,227	2,227		
352	Chief Joseph	09/1990	09/2008	8.875%	1,024	0		
353	Chief Joseph	09/1990	09/2029	7.150%	4,505	4,505		
354	Chief Joseph	09/1991	09/2008	8.750%	34	0		
355	Chief Joseph	09/1991	09/2008	8.750%	293	0		
356	Chief Joseph	09/1991	09/2029	8.750%	3,840	0		
357	Chief Joseph	09/1992	09/2008	8.500%	142	0		
358	Chief Joseph	09/1992	09/2008	8.500%	717	0		
359	Chief Joseph	09/1992	09/2029	8.500%	2,032	0		
360	Chief Joseph	09/1993	09/2008	7.875%	42	0		
361	Chief Joseph	09/1993	09/2008	7.875%	794	0		
362	Chief Joseph	09/1993	09/2029	7.875%	1,360	0		
363	Chief Joseph	09/1994	09/2029	7.125%	129	0		
364	Chief Joseph	09/1994	09/2029	7.125%	65	0		
365	Chief Joseph	09/1994	09/2044	7.150%	4,280	4,017		
366	Chief Joseph	09/1995	09/2010	7.090%	15	0		
367	Chief Joseph	09/1995	09/2045	7.150%	147	147		
368	Chief Joseph	09/1995	09/2045	7.150%	562	562		
369	Chief Joseph	09/1995	09/2045	7.150%	712	712		
370	Chief Joseph	09/1995	09/2045	7.150%	784	784		
371	Chief Joseph	09/1996	09/2031	7.150%	27	27		
372	Chief Joseph	09/1996	09/2046	7.150%	3	3		
373	Chief Joseph	09/1996	09/2046	7.150%	4	4		
374	Chief Joseph	09/1996	09/2046	7.150%	355	355		
375	Chief Joseph	09/1996	09/2046	7.150%	729	729		
376	Chief Joseph	09/1997	09/2032	7.150%	166	166		
377	Chief Joseph	09/1997	09/2047	7.150%	657	657		
378	Chief Joseph	09/2001	09/2051	5.875%	345	345		
379	Chief Joseph	09/2002	09/2052	5.500%	2	2		
380	Chief Joseph	09/2003	09/2053	5.125%	992	992		
381	Chief Joseph	09/2008	09/2058	4.875%	3,500	3,500		
382	Chief Joseph	09/2009	09/2059	4.375%	24,727	24,727		
383	Chief Joseph	09/2011	09/2061	3.750%	4	4		
384	Chief Joseph	09/2012	09/2062	3.375%	28	28		
385	Chief Joseph	09/2013	09/2063	2.875%	10	10		
386	Columbia Basin	09/1941	09/1991	3.000%	10,919	0		
387	Columbia Basin	09/1941	09/1991	3.000%	1,505	0		
388	Columbia Basin	09/1942	09/1992	3.000%	16,165	0		
389	Columbia Basin	09/1942	09/1992	3.000%	3,011	0		
390	Columbia Basin	09/1943	09/1993	3.000%	8,083	0		
391	Columbia Basin	09/1943	09/1993	3.000%	1,505	0		
392	Columbia Basin	09/1944	09/1994	3.000%	16,165	0		
393	Columbia Basin	09/1944	09/1994	3.000%	3,011	0		
394	Columbia Basin	09/1948	09/1998	3.000%	24,247	0		
395	Columbia Basin	09/1948	09/1998	3.000%	4,516	0		
396	Columbia Basin	09/1949	09/1999	3.000%	24,247	0		
397	Columbia Basin	09/1949	09/1999	3.000%	4,516	0		
398	Columbia Basin	09/1950	09/2000	3.000%	16,165	0		
399	Columbia Basin	09/1950	09/2000	3.000%	3,011	0		
400	Columbia Basin	09/1951	09/2001	6.710%	28,255	0		
401	Columbia Basin	09/1951	09/2001	6.710%	5,790	0		
402	Columbia Basin	09/1952	09/2001	6.710%	258	0		
403	Columbia Basin	09/1952	09/2001	6.710%	48	0		
404	Columbia Basin	09/1953	09/2001	6.710%	258	0		
405	Columbia Basin	09/1953	09/2001	6.710%	48	0		
406	Columbia Basin	09/1954	09/2001	6.710%	258	0		
407	Columbia Basin	09/1954	09/2001	6.710%	48	0		
408	Columbia Basin	09/1955	09/2001	6.710%	258	0		
409	Columbia Basin	09/1955	09/2001	6.710%	48	0		
410	Columbia Basin	09/1956	09/2001	6.710%	259	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
411	Columbia Basin	09/1956	09/2001	6.710%	48	0		
412	Columbia Basin	09/1957	09/2001	6.710%	258	0		
413	Columbia Basin	09/1957	09/2001	6.710%	48	0		
414	Columbia Basin	09/1958	09/2001	6.710%	258	0		
415	Columbia Basin	09/1958	09/2001	6.710%	48	0		
416	Columbia Basin	09/1959	09/2001	6.710%	258	0		
417	Columbia Basin	09/1959	09/2001	6.710%	48	0		
418	Columbia Basin	09/1960	09/2001	6.710%	258	0		
419	Columbia Basin	09/1960	09/2001	6.710%	48	0		
420	Columbia Basin	09/1961	09/2001	6.710%	259	0		
421	Columbia Basin	09/1961	09/2001	6.710%	48	0		
422	Columbia Basin	09/1962	09/2001	6.710%	258	0		
423	Columbia Basin	09/1962	09/2001	6.710%	48	0		
424	Columbia Basin	09/1963	09/2001	6.710%	258	0		
425	Columbia Basin	09/1963	09/2001	6.710%	48	0		
426	Columbia Basin	09/1964	09/2001	6.710%	258	0		
427	Columbia Basin	09/1964	09/2001	6.710%	48	0		
428	Columbia Basin	09/1965	09/2001	6.710%	258	0		
429	Columbia Basin	09/1965	09/2001	6.710%	48	0		
430	Columbia Basin	09/1966	09/2001	6.710%	259	0		
431	Columbia Basin	09/1966	09/2001	6.710%	48	0		
432	Columbia Basin	09/1967	09/2001	6.710%	258	0		
433	Columbia Basin	09/1967	09/2001	6.710%	48	0		
434	Columbia Basin	09/1967	09/2017	7.290%	758	0		
435	Columbia Basin	09/1968	09/2001	6.710%	258	0		
436	Columbia Basin	09/1968	09/2001	6.710%	48	0		
437	Columbia Basin	09/1969	09/2001	6.710%	258	0		
438	Columbia Basin	09/1969	09/2001	6.710%	48	0		
439	Columbia Basin	09/1970	09/2001	6.710%	258	0		
440	Columbia Basin	09/1970	09/2001	6.710%	48	0		
441	Columbia Basin	09/1971	09/2001	6.710%	259	0		
442	Columbia Basin	09/1971	09/2001	6.710%	48	0		
443	Columbia Basin	09/1972	09/2001	6.710%	258	0		
444	Columbia Basin	09/1972	09/2001	6.710%	48	0		
445	Columbia Basin	09/1973	09/2001	6.710%	258	0		
446	Columbia Basin	09/1973	09/2001	6.710%	48	0		
447	Columbia Basin	09/1974	09/2001	6.710%	258	0		
448	Columbia Basin	09/1974	09/2001	6.710%	48	0		
449	Columbia Basin	09/1975	09/2001	6.710%	258	0		
450	Columbia Basin	09/1975	09/2001	6.710%	48	0		
451	Columbia Basin	09/1976	09/2001	6.710%	259	0		
452	Columbia Basin	09/1976	09/2001	6.710%	48	0		
453	Columbia Basin	09/1977	09/2001	6.710%	258	0		
454	Columbia Basin	09/1977	09/2001	6.710%	48	0		
455	Columbia Basin	09/1978	09/2001	6.710%	258	0		
456	Columbia Basin	09/1978	09/2001	6.710%	48	0		
457	Columbia Basin	09/1979	09/2001	6.710%	258	0		
458	Columbia Basin	09/1979	09/2001	6.710%	48	0		
459	Columbia Basin	09/1980	09/2001	6.710%	258	0		
460	Columbia Basin	09/1980	09/2001	6.710%	48	0		
461	Columbia Basin	09/1981	09/2001	6.710%	259	0		
462	Columbia Basin	09/1981	09/2001	6.710%	48	0		
463	Columbia Basin	09/1982	09/2001	6.710%	258	0		
464	Columbia Basin	09/1982	09/2001	6.710%	48	0		
465	Columbia Basin	09/1983	09/2001	6.710%	258	0		
466	Columbia Basin	09/1983	09/2001	6.710%	48	0		
467	Columbia Basin	09/1984	09/2001	10.750%	7,815	0		
468	Columbia Basin	09/1984	09/2001	10.750%	1,455	0		
469	Columbia Basin	09/1985	09/2001	6.710%	236	0		
470	Columbia Basin	09/1985	09/2001	6.710%	11	0		
471	Columbia Basin	09/1985	09/2001	12.375%	7,338	0		
472	Columbia Basin	09/1985	09/2001	12.375%	362	0		
473	Columbia Basin	09/1986	09/2001	6.710%	127	0		
474	Columbia Basin	09/1987	09/2001	6.710%	13	0		
475	Columbia Basin	09/1988	09/2001	8.500%	184	0		
476	Columbia Basin	09/1988	09/2001	8.500%	2	0		
477	Columbia Basin	09/1989	09/2001	9.250%	1,166	0		
478	Columbia Basin	09/1990	09/2001	8.875%	928	0		
479	Columbia Basin	09/1991	09/2001	8.750%	177	0		
480	Columbia Basin	09/1991	09/2001	8.750%	1,661	0		
481	Columbia Basin	09/1992	09/2001	8.500%	445	0		
482	Columbia Basin	09/1992	09/2001	8.500%	652	0		
483	Columbia Basin	09/1993	09/2001	6.710%	792	0		
484	Columbia Basin	09/1995	09/2000	6.620%	25	0		
485	Columbia Basin	09/1995	09/2020	7.250%	206	0		
486	Columbia Basin	09/1995	09/2030	7.150%	25	0		
487	Columbia Basin	09/1995	09/2030	7.860%	270	0		
488	Columbia Basin	09/1995	09/2030	7.860%	321	0		
489	Columbia Basin	09/1995	09/2030	7.860%	323	0		
490	Columbia Basin	09/1995	09/2030	7.860%	20	0		
491	Columbia Basin	09/1995	09/2045	7.150%	287	287		
492	Columbia Basin	09/1995	09/2045	7.150%	2,511	2,453		

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	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
493	Columbia Basin	09/1995	09/2045	7.860%	450	0		
494	Columbia Basin	09/1995	09/2045	7.860%	450	0		
495	Columbia Basin	09/1996	09/2026	7.150%	72	0		
496	Columbia Basin	09/1996	09/2031	7.150%	109	109		
497	Columbia Basin	09/1996	09/2031	7.150%	251	251		
498	Columbia Basin	09/1996	09/2046	7.150%	426	426		
499	Columbia Basin	09/1996	09/2046	7.150%	368	368		
500	Columbia Basin	09/1997	09/2047	7.150%	3,393	3,393		
501	Columbia Basin	09/2001	09/2051	5.875%	69,226	69,226		
502	Columbia Basin	09/2005	09/2055	5.125%	10,963	10,963		
503	Columbia Basin	09/2006	09/2056	4.500%	1,987	1,987		
504	Columbia Basin	09/2007	09/2057	5.000%	929	929		
505	Columbia Basin	09/2008	09/2058	4.875%	835	835		
506	Columbia Basin	09/2009	09/2059	4.375%	1,338	1,338		
507	Columbia Basin	09/2010	09/2060	4.250%	877	877		
508	Columbia Basin	09/2011	09/2061	3.750%	1,723	1,723		
509	Columbia Basin	09/2012	09/2062	3.375%	11	11		
510	Columbia Basin	09/2013	09/2063	2.875%	3,083	3,083		
511	Columbia Basin	09/2014	09/2064	3.875%	19	19		
512	Columbia Basin	09/2015	09/2065	3.250%				
513	Columbia Basin 3rd Powerhouse	09/1975	09/2025	7.160%	47,328	0		
514	Columbia Basin 3rd Powerhouse	09/1975	09/2025	7.160%	8,702	0		
515	Columbia Basin 3rd Powerhouse	09/1976	09/2026	7.150%	41,330	0		
516	Columbia Basin 3rd Powerhouse	09/1976	09/2026	7.150%	8,037	0		
517	Columbia Basin 3rd Powerhouse	09/1977	09/2027	7.150%	42,764	42,764		
518	Columbia Basin 3rd Powerhouse	09/1977	09/2027	7.150%	7,964	7,964		
519	Columbia Basin 3rd Powerhouse	09/1978	09/2028	7.150%	42,399	42,399		
520	Columbia Basin 3rd Powerhouse	09/1978	09/2028	7.150%	7,896	7,896		
521	Columbia Basin 3rd Powerhouse	09/1979	09/2029	7.150%	84,118	84,118		
522	Columbia Basin 3rd Powerhouse	09/1979	09/2029	7.150%	15,666	15,666		
523	Columbia Basin 3rd Powerhouse	09/1983	09/2033	7.150%	712	712		
524	Columbia Basin 3rd Powerhouse	09/1983	09/2033	7.150%	13,003	13,003		
525	Columbia Basin 3rd Powerhouse	09/1984	09/2033	7.150%	16,965	16,965		
526	Columbia Basin 3rd Powerhouse	09/1984	09/2033	7.150%	13,192	13,192		
527	Columbia Basin 3rd Powerhouse	09/1984	09/2033	7.150%	3,160	3,160		
528	Columbia Basin 3rd Powerhouse	09/1985	09/2033	7.150%	2,060	2,060		
529	Columbia Basin 3rd Powerhouse	09/1985	09/2033	7.150%	41,772	41,772		
530	Columbia Basin 3rd Powerhouse	09/1985	09/2033	7.150%	107	107		
531	Columbia Basin 3rd Powerhouse	09/1986	09/2033	7.150%	1,851	1,851		
532	Columbia Basin 3rd Powerhouse	09/1986	09/2033	7.150%	15,538	15,538		
533	Columbia Basin 3rd Powerhouse	09/1987	09/2033	7.150%	1,730	1,730		
534	Columbia Basin 3rd Powerhouse	09/1987	09/2033	7.150%	14,439	14,439		
535	Columbia Basin 3rd Powerhouse	09/1988	09/2033	7.150%	2,294	2,294		
536	Columbia Basin 3rd Powerhouse	09/1988	09/2033	7.150%	4,351	4,351		
537	Columbia Basin 3rd Powerhouse	09/1989	09/2033	7.150%	10,902	10,902		
538	Columbia Basin 3rd Powerhouse	09/1990	09/2033	7.150%	6,383	6,383		
539	Columbia Basin 3rd Powerhouse	09/1994	09/2044	7.150%	12,631	12,631		
540	Columbia River Fish Mitigation	09/1991	09/2041	8.500%	3,969	0		
541	Columbia River Fish Mitigation	09/1992	09/2042	8.500%	874	0		
542	Columbia River Fish Mitigation	09/1993	09/2043	8.500%	85,846	0		
543	Columbia River Fish Mitigation	09/1994	09/2044	8.500%	39,454	0		
544	Columbia River Fish Mitigation	09/1995	09/2045	7.150%	43,343	39,282		
545	Columbia River Fish Mitigation	09/1996	09/2046	7.150%	2,431	2,431		
546	Columbia River Fish Mitigation	09/1999	09/2049	5.375%	14,115	14,115		
547	Columbia River Fish Mitigation	09/2000	09/2050	6.125%	47,006	47,006		
548	Columbia River Fish Mitigation	09/2001	09/2051	5.875%	6,168	6,168		
549	Columbia River Fish Mitigation	09/2002	09/2052	5.500%	8,797	8,797		
550	Columbia River Fish Mitigation	09/2003	09/2053	5.125%	68,440	68,440		
551	Columbia River Fish Mitigation	09/2004	09/2054	5.375%	60,581	60,581		
552	Columbia River Fish Mitigation	09/2005	09/2055	5.125%	52,039	52,039		
553	Columbia River Fish Mitigation	09/2006	09/2056	4.500%	366,395	366,395		
554	Columbia River Fish Mitigation	09/2007	09/2057	5.000%	53,525	53,525		
555	Columbia River Fish Mitigation	09/2008	09/2058	4.875%	36,554	36,554		
556	Columbia River Fish Mitigation	09/2009	09/2059	4.375%	103,203	103,203		
557	Columbia River Fish Mitigation	09/2010	09/2060	4.250%	56,832	56,832		
558	Columbia River Fish Mitigation	09/2011	09/2061	3.750%	106,014	106,014		
559	Columbia River Fish Mitigation	09/2012	09/2062	3.375%	101,616	101,616		
560	Columbia River Fish Mitigation	09/2013	09/2063	2.875%	95,274	95,274		
561	Columbia River Fish Mitigation	09/2014	09/2064	3.875%	110,071	110,071		
562	Columbia River Fish Mitigation	09/2015	09/2065	3.250%	64,288	64,288		
563	Cougar	09/1964	09/2014	7.230%	10,414	0		
564	Cougar	09/1965	09/2014	7.230%	20	0		
565	Cougar	09/1966	09/2014	7.230%	20	0		
566	Cougar	09/1967	09/2014	7.230%	20	0		
567	Cougar	09/1968	09/2014	7.230%	20	0		
568	Cougar	09/1969	09/2014	7.230%	20	0		
569	Cougar	09/1970	09/2014	7.230%	20	0		
570	Cougar	09/1971	09/2014	7.230%	20	0		
571	Cougar	09/1972	09/2014	7.230%	20	0		
572	Cougar	09/1973	09/2014	7.230%	20	0		
573	Cougar	09/1974	09/2014	7.230%	19	0		
574	Cougar	09/1975	09/2014	7.230%	20	0		

TABLE 11A:
HISTORICAL INVESTMENTS
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
575	Cougar	09/1976	09/2014	7.230%	20	0		
576	Cougar	09/1977	09/2014	7.230%	20	0		
577	Cougar	09/1978	09/2014	7.230%	20	0		
578	Cougar	09/1979	09/2014	7.230%	20	0		
579	Cougar	09/1980	09/2014	7.230%	20	0		
580	Cougar	09/1981	09/2014	7.230%	20	0		
581	Cougar	09/1982	09/2014	7.230%	20	0		
582	Cougar	09/1983	09/2014	7.230%	20	0		
583	Cougar	09/1984	09/2014	10.750%	1	0		
584	Cougar	09/1985	09/2014	7.230%	1	0		
585	Cougar	09/1986	09/2014	7.230%	104	0		
586	Cougar	09/1986	09/2014	11.375%	55	0		
587	Cougar	09/1987	09/2014	7.230%	45	0		
588	Cougar	09/1988	09/2014	8.500%	2	0		
589	Cougar	09/1989	09/2014	9.250%	6	0		
590	Cougar	09/1990	09/2014	8.875%	10	0		
591	Cougar	09/1991	09/2014	8.750%	1,015	0		
592	Cougar	09/1991	09/2014	8.750%	1	0		
593	Cougar	09/1992	09/2014	8.500%	2	0		
594	Cougar	09/1993	09/2014	7.875%	539	0		
595	Cougar	09/1994	09/2019	7.125%	31	0		
596	Cougar	09/1995	09/2000	7.330%	3	0		
597	Cougar	09/1997	09/2047	7.150%	26	26		
598	Cougar	09/2004	09/2054	5.375%	3,622	3,622		
599	Cougar	09/2005	09/2055	5.125%	8,130	8,130		
600	Cougar	09/2006	09/2056	4.500%	109	109		
601	Cougar	09/2007	09/2057	5.000%	120	120		
602	Cougar	09/2009	09/2059	4.375%	121	121		
603	Cougar	09/2010	09/2060	4.250%	59	59		
604	Cougar	09/2011	09/2061	3.750%	282	282		
605	Cougar	09/2012	09/2062	3.375%	139	139		
606	Cougar	09/2013	09/2063	2.875%	4,088	4,088		
607	Cougar	09/2014	09/2064	3.875%	12	12		
608	Detroit Lake/Big Cliff	09/1953	09/2003	6.840%	12,533	0		
609	Detroit Lake/Big Cliff	09/1954	09/2004	6.880%	20,162	0		
610	Detroit Lake/Big Cliff	09/1955	09/2004	6.880%	18	0		
611	Detroit Lake/Big Cliff	09/1956	09/2004	6.880%	19	0		
612	Detroit Lake/Big Cliff	09/1957	09/2004	6.880%	18	0		
613	Detroit Lake/Big Cliff	09/1958	09/2004	6.880%	19	0		
614	Detroit Lake/Big Cliff	09/1959	09/2004	6.880%	18	0		
615	Detroit Lake/Big Cliff	09/1960	09/2004	6.880%	19	0		
616	Detroit Lake/Big Cliff	09/1961	09/2004	6.880%	18	0		
617	Detroit Lake/Big Cliff	09/1962	09/2004	6.880%	19	0		
618	Detroit Lake/Big Cliff	09/1963	09/2004	6.880%	18	0		
619	Detroit Lake/Big Cliff	09/1964	09/2004	6.880%	19	0		
620	Detroit Lake/Big Cliff	09/1965	09/2004	6.880%	18	0		
621	Detroit Lake/Big Cliff	09/1966	09/2004	6.880%	19	0		
622	Detroit Lake/Big Cliff	09/1967	09/2004	6.880%	18	0		
623	Detroit Lake/Big Cliff	09/1968	09/2004	6.880%	19	0		
624	Detroit Lake/Big Cliff	09/1969	09/2004	6.880%	18	0		
625	Detroit Lake/Big Cliff	09/1970	09/2004	6.880%	19	0		
626	Detroit Lake/Big Cliff	09/1971	09/2004	6.880%	18	0		
627	Detroit Lake/Big Cliff	09/1972	09/2004	6.880%	19	0		
628	Detroit Lake/Big Cliff	09/1973	09/2004	6.880%	18	0		
629	Detroit Lake/Big Cliff	09/1974	09/2004	6.880%	19	0		
630	Detroit Lake/Big Cliff	09/1975	09/2004	6.880%	18	0		
631	Detroit Lake/Big Cliff	09/1976	09/2004	6.880%	19	0		
632	Detroit Lake/Big Cliff	09/1977	09/2004	6.880%	18	0		
633	Detroit Lake/Big Cliff	09/1978	09/2004	6.880%	19	0		
634	Detroit Lake/Big Cliff	09/1979	09/2004	6.880%	18	0		
635	Detroit Lake/Big Cliff	09/1980	09/2004	6.880%	19	0		
636	Detroit Lake/Big Cliff	09/1981	09/2004	6.880%	18	0		
637	Detroit Lake/Big Cliff	09/1982	09/2004	6.880%	19	0		
638	Detroit Lake/Big Cliff	09/1983	09/2004	6.880%	18	0		
639	Detroit Lake/Big Cliff	09/1984	09/2004	10.750%	21	0		
640	Detroit Lake/Big Cliff	09/1985	09/2004	6.880%	6	0		
641	Detroit Lake/Big Cliff	09/1986	09/2004	11.375%	38	0		
642	Detroit Lake/Big Cliff	09/1987	09/2004	6.880%	3	0		
643	Detroit Lake/Big Cliff	09/1987	09/2004	8.875%	233	0		
644	Detroit Lake/Big Cliff	09/1988	09/2004	8.500%	68	0		
645	Detroit Lake/Big Cliff	09/1989	09/2004	9.250%	26	0		
646	Detroit Lake/Big Cliff	09/1990	09/2004	8.875%	115	0		
647	Detroit Lake/Big Cliff	09/1991	09/2004	8.750%	9	0		
648	Detroit Lake/Big Cliff	09/1991	09/2004	8.750%	20	0		
649	Detroit Lake/Big Cliff	09/1992	09/2004	8.500%	8	0		
650	Detroit Lake/Big Cliff	09/1993	09/2004	7.875%	211	0		
651	Detroit Lake/Big Cliff	09/1994	09/1999	7.125%	7	0		
652	Detroit Lake/Big Cliff	09/1995	09/2000	7.330%	13	0		
653	Detroit Lake/Big Cliff	09/1995	09/2045	7.150%	38	38		
654	Detroit Lake/Big Cliff	09/1996	09/2006	6.950%	24	0		
655	Detroit Lake/Big Cliff	09/2001	09/2051	5.875%	282	282		
656	Detroit Lake/Big Cliff	09/2002	09/2052	5.500%	18	18		

TABLE 11A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
657	Detroit Lake/Big Cliff	09/2003	09/2053	5.125%	223	223		
658	Detroit Lake/Big Cliff	09/2005	09/2055	5.125%	1,031	1,031		
659	Detroit Lake/Big Cliff	09/2013	09/2063	2.875%	528	528		
660	Detroit Lake/Big Cliff	09/2014	09/2064	3.875%	18	18		
661	Dworshak	09/1973	09/2023	7.190%	138,443	0		
662	Dworshak	09/1973	09/2023	7.190%	836	0		
663	Dworshak	09/1974	09/2023	7.190%	515	0		
664	Dworshak	09/1974	09/2023	7.190%	3	0		
665	Dworshak	09/1975	09/2023	7.190%	518	0		
666	Dworshak	09/1975	09/2023	7.190%	3	0		
667	Dworshak	09/1976	09/2023	7.190%	518	0		
668	Dworshak	09/1976	09/2023	7.190%	3	0		
669	Dworshak	09/1977	09/2023	7.190%	518	0		
670	Dworshak	09/1977	09/2023	7.190%	3	0		
671	Dworshak	09/1978	09/2023	7.190%	518	0		
672	Dworshak	09/1978	09/2023	7.190%	3	0		
673	Dworshak	09/1979	09/2023	7.190%	518	0		
674	Dworshak	09/1979	09/2023	7.190%	3	0		
675	Dworshak	09/1980	09/2023	7.190%	518	0		
676	Dworshak	09/1980	09/2023	7.190%	3	0		
677	Dworshak	09/1981	09/2023	7.190%	518	0		
678	Dworshak	09/1981	09/2023	7.190%	3	0		
679	Dworshak	09/1982	09/2023	7.190%	518	0		
680	Dworshak	09/1982	09/2023	7.190%	3	0		
681	Dworshak	09/1983	09/2023	7.190%	523	0		
682	Dworshak	09/1983	09/2023	7.190%	3	0		
683	Dworshak	09/1984	09/2023	10.750%	2,499	0		
684	Dworshak	09/1984	09/2023	10.750%	15	0		
685	Dworshak	09/1985	09/2023	7.190%	1,141	0		
686	Dworshak	09/1986	09/2023	7.190%	197	0		
687	Dworshak	09/1987	09/2023	7.190%	36	0		
688	Dworshak	09/1987	09/2023	8.875%	65	0		
689	Dworshak	09/1988	09/2023	8.500%	61	0		
690	Dworshak	09/1989	09/2023	9.250%	63	0		
691	Dworshak	09/1990	09/2023	8.875%	245	0		
692	Dworshak	09/1990	09/2023	8.875%	24	0		
693	Dworshak	09/1991	09/2023	8.750%	224	0		
694	Dworshak	09/1992	09/2023	2.625%	4	0		
695	Dworshak	09/1992	09/2023	8.500%	28	0		
696	Dworshak	09/1992	09/2023	8.500%	24	0		
697	Dworshak	09/1993	09/2023	7.875%	41	0		
698	Dworshak	09/1993	09/2023	7.875%	1,872	0		
699	Dworshak	09/1994	09/2029	7.125%	1,351	0		
700	Dworshak	09/1994	09/2029	7.125%	964	0		
701	Dworshak	09/1995	09/2020	7.930%	55	0		
702	Dworshak	09/1995	09/2030	7.150%	218	218		
703	Dworshak	09/1995	09/2045	7.150%	1,162	1,162		
704	Dworshak	09/1996	09/2011	7.130%	107	0		
705	Dworshak	09/1996	09/2021	7.230%	26	0		
706	Dworshak	09/1996	09/2021	7.230%	184	0		
707	Dworshak	09/1996	09/2031	7.150%	6	6		
708	Dworshak	09/1996	09/2031	7.150%	203	203		
709	Dworshak	09/1996	09/2046	7.150%	3	3		
710	Dworshak	09/1996	09/2046	7.150%	4	4		
711	Dworshak	09/1996	09/2046	7.150%	46	46		
712	Dworshak	09/1997	09/2047	7.150%	7,588	7,588		
713	Dworshak	09/1999	09/2049	5.375%	630	630		
714	Dworshak	09/2002	09/2052	5.500%	199	199		
715	Dworshak	09/2003	09/2053	5.125%	761	761		
716	Dworshak	09/2005	09/2055	5.125%	713	713		
717	Dworshak	09/2006	09/2056	4.500%	73	73		
718	Dworshak	09/2008	09/2058	4.875%	10	10		
719	Dworshak	09/2009	09/2059	4.375%	2,425	2,425		
720	Dworshak	09/2014	09/2064	3.875%	50	0		
721	Green Peter/Foster	09/1967	09/2017	7.290%	24,445	0		
722	Green Peter/Foster	09/1968	09/2018	7.280%	12,180	0		
723	Green Peter/Foster	09/1969	09/2018	7.280%	39	0		
724	Green Peter/Foster	09/1970	09/2018	7.280%	40	0		
725	Green Peter/Foster	09/1971	09/2018	7.280%	39	0		
726	Green Peter/Foster	09/1972	09/2018	7.280%	39	0		
727	Green Peter/Foster	09/1973	09/2018	7.280%	39	0		
728	Green Peter/Foster	09/1974	09/2018	7.280%	39	0		
729	Green Peter/Foster	09/1975	09/2018	7.280%	39	0		
730	Green Peter/Foster	09/1976	09/2018	7.280%	39	0		
731	Green Peter/Foster	09/1977	09/2018	7.280%	39	0		
732	Green Peter/Foster	09/1978	09/2018	7.280%	39	0		
733	Green Peter/Foster	09/1979	09/2018	7.280%	39	0		
734	Green Peter/Foster	09/1980	09/2018	7.280%	40	0		
735	Green Peter/Foster	09/1981	09/2018	7.280%	39	0		
736	Green Peter/Foster	09/1982	09/2018	7.280%	39	0		
737	Green Peter/Foster	09/1983	09/2018	7.280%	39	0		
738	Green Peter/Foster	09/1984	09/2018	10.750%	15	0		

TABLE 11A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
739	Green Peter/Foster	09/1985	09/2018	7.280%	16	0		
740	Green Peter/Foster	09/1986	09/2018	7.280%	3	0		
741	Green Peter/Foster	09/1986	09/2018	11.375%	3	0		
742	Green Peter/Foster	09/1987	09/2018	7.280%	1	0		
743	Green Peter/Foster	09/1987	09/2018	8.875%	2	0		
744	Green Peter/Foster	09/1988	09/2018	8.500%	13	0		
745	Green Peter/Foster	09/1989	09/2018	9.250%	24	0		
746	Green Peter/Foster	09/1990	09/2018	8.875%	5	0		
747	Green Peter/Foster	09/1991	09/2018	8.750%	48	0		
748	Green Peter/Foster	09/1992	09/2018	8.500%	2	0		
749	Green Peter/Foster	09/1993	09/2018	7.875%	41	0		
750	Green Peter/Foster	09/1994	09/1999	7.125%	6	0		
751	Green Peter/Foster	09/1995	09/2000	7.330%	4	0		
752	Green Peter/Foster	09/1995	09/2020	7.250%	11	0		
753	Green Peter/Foster	09/1995	09/2020	7.250%	24	0		
754	Green Peter/Foster	09/1996	09/2046	7.150%	26	26		
755	Green Peter/Foster	09/2001	09/2051	5.875%	200	200		
756	Green Peter/Foster	09/2011	09/2061	3.750%	87	87		
757	Green Peter/Foster	09/2012	09/2062	3.375%	28	28		
758	Green Peter/Foster	09/2014	09/2064	3.875%	385	385		
759	Green Peter/Foster	09/2015	09/2065	3.250%	19	19		
760	Hills Creek	09/1962	09/2012	7.160%	10,353	0		
761	Hills Creek	09/1963	09/2012	7.160%	12	0		
762	Hills Creek	09/1964	09/2012	7.160%	13	0		
763	Hills Creek	09/1965	09/2012	7.160%	13	0		
764	Hills Creek	09/1966	09/2012	7.160%	13	0		
765	Hills Creek	09/1967	09/2012	7.160%	13	0		
766	Hills Creek	09/1968	09/2012	7.160%	13	0		
767	Hills Creek	09/1969	09/2012	7.160%	13	0		
768	Hills Creek	09/1970	09/2012	7.160%	13	0		
769	Hills Creek	09/1971	09/2012	7.160%	13	0		
770	Hills Creek	09/1972	09/2012	7.160%	13	0		
771	Hills Creek	09/1973	09/2012	7.160%	13	0		
772	Hills Creek	09/1974	09/2012	7.160%	13	0		
773	Hills Creek	09/1975	09/2012	7.160%	13	0		
774	Hills Creek	09/1976	09/2012	7.160%	13	0		
775	Hills Creek	09/1977	09/2012	7.160%	13	0		
776	Hills Creek	09/1978	09/2012	7.160%	13	0		
777	Hills Creek	09/1979	09/2012	7.160%	13	0		
778	Hills Creek	09/1980	09/2012	7.160%	13	0		
779	Hills Creek	09/1981	09/2012	7.160%	13	0		
780	Hills Creek	09/1982	09/2012	7.160%	13	0		
781	Hills Creek	09/1983	09/2012	7.160%	13	0		
782	Hills Creek	09/1984	09/2012	10.750%	52	0		
783	Hills Creek	09/1985	09/2012	7.160%	6	0		
784	Hills Creek	09/1987	09/2012	8.875%	3	0		
785	Hills Creek	09/1988	09/2012	8.500%	3	0		
786	Hills Creek	09/1990	09/2012	8.875%	3	0		
787	Hills Creek	09/1991	09/2012	8.750%	17	0		
788	Hills Creek	09/1992	09/2012	8.500%	1	0		
789	Hills Creek	09/1993	09/2012	7.875%	13	0		
790	Hills Creek	09/1996	09/2046	7.150%	28	28		
791	Hills Creek	09/2000	09/2050	6.125%	2,630	2,630		
792	Hills Creek	09/2001	09/2051	5.875%	8	8		
793	Hills Creek	09/2002	09/2052	5.500%	2	2		
794	Hills Creek	09/2005	09/2055	5.125%	46	46		
795	Hills Creek	09/2011	09/2061	3.750%	12	12		
796	Hills Creek	09/2012	09/2062	3.375%	142	142		
797	Hungry Horse Dam	09/1953	09/2003	6.840%	75,076	0		
798	Hungry Horse Dam	09/1953	09/2003	6.840%	2,126	0		
799	Hungry Horse Dam	09/1954	09/2003	6.840%	17	0		
800	Hungry Horse Dam	09/1954	09/2003	6.840%	1	0		
801	Hungry Horse Dam	09/1955	09/2003	6.840%	17	0		
802	Hungry Horse Dam	09/1955	09/2003	6.840%	1	0		
803	Hungry Horse Dam	09/1956	09/2003	6.840%	17	0		
804	Hungry Horse Dam	09/1956	09/2003	6.840%	1	0		
805	Hungry Horse Dam	09/1957	09/2003	6.840%	18	0		
806	Hungry Horse Dam	09/1957	09/2003	6.840%	1	0		
807	Hungry Horse Dam	09/1958	09/2003	6.840%	18	0		
808	Hungry Horse Dam	09/1958	09/2003	6.840%	1	0		
809	Hungry Horse Dam	09/1959	09/2003	6.840%	18	0		
810	Hungry Horse Dam	09/1959	09/2003	6.840%	1	0		
811	Hungry Horse Dam	09/1960	09/2003	6.840%	18	0		
812	Hungry Horse Dam	09/1960	09/2003	6.840%	1	0		
813	Hungry Horse Dam	09/1961	09/2003	6.840%	18	0		
814	Hungry Horse Dam	09/1961	09/2003	6.840%	1	0		
815	Hungry Horse Dam	09/1962	09/2003	6.840%	18	0		
816	Hungry Horse Dam	09/1962	09/2003	6.840%	1	0		
817	Hungry Horse Dam	09/1963	09/2003	6.840%	18	0		
818	Hungry Horse Dam	09/1963	09/2003	6.840%	1	0		
819	Hungry Horse Dam	09/1964	09/2003	6.840%	17	0		
820	Hungry Horse Dam	09/1964	09/2003	6.840%	1	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
821	Hungry Horse Dam	09/1965	09/2003	6.840%	17	0		
822	Hungry Horse Dam	09/1965	09/2003	6.840%	1	0		
823	Hungry Horse Dam	09/1966	09/2003	6.840%	17	0		
824	Hungry Horse Dam	09/1966	09/2003	6.840%	1	0		
825	Hungry Horse Dam	09/1967	09/2003	6.840%	18	0		
826	Hungry Horse Dam	09/1967	09/2003	6.840%	1	0		
827	Hungry Horse Dam	09/1968	09/2003	6.840%	18	0		
828	Hungry Horse Dam	09/1968	09/2003	6.840%	1	0		
829	Hungry Horse Dam	09/1969	09/2003	6.840%	18	0		
830	Hungry Horse Dam	09/1969	09/2003	6.840%	1	0		
831	Hungry Horse Dam	09/1970	09/2003	6.840%	18	0		
832	Hungry Horse Dam	09/1970	09/2003	6.840%	1	0		
833	Hungry Horse Dam	09/1971	09/2003	6.840%	18	0		
834	Hungry Horse Dam	09/1971	09/2003	6.840%	1	0		
835	Hungry Horse Dam	09/1972	09/2003	6.840%	18	0		
836	Hungry Horse Dam	09/1972	09/2003	6.840%	1	0		
837	Hungry Horse Dam	09/1973	09/2003	6.840%	18	0		
838	Hungry Horse Dam	09/1973	09/2003	6.840%	1	0		
839	Hungry Horse Dam	09/1974	09/2003	6.840%	17	0		
840	Hungry Horse Dam	09/1974	09/2003	6.840%	1	0		
841	Hungry Horse Dam	09/1975	09/2003	6.840%	17	0		
842	Hungry Horse Dam	09/1975	09/2003	6.840%	1	0		
843	Hungry Horse Dam	09/1976	09/2003	6.840%	10	0		
844	Hungry Horse Dam	09/1976	09/2003	6.840%	1	0		
845	Hungry Horse Dam	09/1977	09/2003	6.840%	18	0		
846	Hungry Horse Dam	09/1977	09/2003	6.840%	1	0		
847	Hungry Horse Dam	09/1978	09/2003	6.840%	18	0		
848	Hungry Horse Dam	09/1978	09/2003	6.840%	1	0		
849	Hungry Horse Dam	09/1979	09/2003	6.840%	18	0		
850	Hungry Horse Dam	09/1979	09/2003	6.840%	1	0		
851	Hungry Horse Dam	09/1980	09/2003	6.840%	18	0		
852	Hungry Horse Dam	09/1980	09/2003	6.840%	1	0		
853	Hungry Horse Dam	09/1981	09/2003	6.840%	22	0		
854	Hungry Horse Dam	09/1981	09/2003	6.840%	1	0		
855	Hungry Horse Dam	09/1982	09/2003	6.840%	1	0		
856	Hungry Horse Dam	09/1983	09/2003	6.840%	12	0		
857	Hungry Horse Dam	09/1983	09/2003	6.840%	1	0		
858	Hungry Horse Dam	09/1984	09/2003	10.750%	32	0		
859	Hungry Horse Dam	09/1984	09/2003	10.750%	1	0		
860	Hungry Horse Dam	09/1985	09/2003	12.375%	36	0		
861	Hungry Horse Dam	09/1985	09/2003	12.375%	37	0		
862	Hungry Horse Dam	09/1989	09/2003	9.250%	101	0		
863	Hungry Horse Dam	09/1990	09/2003	8.875%	58	0		
864	Hungry Horse Dam	09/1991	09/2003	8.750%	19	0		
865	Hungry Horse Dam	09/1992	09/2003	8.500%	9	0		
866	Hungry Horse Dam	09/1993	09/2003	7.875%	4,136	0		
867	Hungry Horse Dam	09/1993	09/2003	7.875%	2	0		
868	Hungry Horse Dam	09/1994	09/2019	7.125%	56	0		
869	Hungry Horse Dam	09/1995	09/2000	6.620%	156	0		
870	Hungry Horse Dam	09/1995	09/2000	6.620%	84	0		
871	Hungry Horse Dam	09/1995	09/2020	7.930%	450	0		
872	Hungry Horse Dam	09/1995	09/2030	7.150%	536	536		
873	Hungry Horse Dam	09/1995	09/2030	7.150%	1,198	1,195		
874	Hungry Horse Dam	09/1995	09/2045	7.150%	6,190	6,190		
875	Hungry Horse Dam	09/1995	09/2045	7.860%	14,354	0		
876	Hungry Horse Dam	09/1996	09/2046	7.150%	15	15		
877	Hungry Horse Dam	09/1996	09/2046	7.150%	2	2		
878	Hungry Horse Dam	09/1997	09/2007	6.950%	154	0		
879	Hungry Horse Dam	09/1997	09/2047	7.150%	111	111		
880	Hungry Horse Dam	09/2001	09/2051	5.875%	552	552		
881	Hungry Horse Dam	09/2005	09/2055	5.125%	2,951	2,951		
882	Hungry Horse Dam	09/2007	09/2057	5.000%	294	294		
883	Hungry Horse Dam	09/2008	09/2058	4.875%	76	76		
884	Hungry Horse Dam	09/2009	09/2059	4.375%	60	60		
885	Hungry Horse Dam	09/2010	09/2060	4.250%	779	779		
886	Hungry Horse Dam	09/2011	09/2061	3.750%	503	503		
887	Hungry Horse Dam	09/2012	09/2062	3.375%	3	3		
888	Hungry Horse Dam	09/2014	09/2064	3.875%	12	12		
889	Hungry Horse Dam	09/2015	09/2065	3.250%	32	32		
890	Ice Harbor	09/1962	09/2012	7.160%	59,699	0		
891	Ice Harbor	09/1962	09/2012	7.160%	664	0		
892	Ice Harbor	09/1963	09/2012	7.160%	46	0		
893	Ice Harbor	09/1963	09/2012	7.160%	1	0		
894	Ice Harbor	09/1964	09/2012	7.160%	46	0		
895	Ice Harbor	09/1964	09/2012	7.160%	1	0		
896	Ice Harbor	09/1965	09/2012	7.160%	46	0		
897	Ice Harbor	09/1965	09/2012	7.160%	1	0		
898	Ice Harbor	09/1966	09/2012	7.160%	46	0		
899	Ice Harbor	09/1966	09/2012	7.160%	1	0		
900	Ice Harbor	09/1967	09/2012	7.160%	46	0		
901	Ice Harbor	09/1967	09/2012	7.160%	1	0		
902	Ice Harbor	09/1968	09/2012	7.160%	46	0		

TABLE 11A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
903	Ice Harbor	09/1968	09/2012	7.160%	1	0		
904	Ice Harbor	09/1969	09/2012	7.160%	46	0		
905	Ice Harbor	09/1969	09/2012	7.160%	1	0		
906	Ice Harbor	09/1970	09/2012	7.160%	46	0		
907	Ice Harbor	09/1970	09/2012	7.160%	1	0		
908	Ice Harbor	09/1971	09/2012	7.160%	46	0		
909	Ice Harbor	09/1971	09/2012	7.160%	1	0		
910	Ice Harbor	09/1972	09/2012	7.160%	46	0		
911	Ice Harbor	09/1972	09/2012	7.160%	1	0		
912	Ice Harbor	09/1973	09/2012	7.160%	46	0		
913	Ice Harbor	09/1973	09/2012	7.160%	1	0		
914	Ice Harbor	09/1974	09/2012	7.160%	46	0		
915	Ice Harbor	09/1974	09/2012	7.160%	1	0		
916	Ice Harbor	09/1975	09/2012	7.160%	46	0		
917	Ice Harbor	09/1975	09/2012	7.160%	1	0		
918	Ice Harbor	09/1976	09/2012	7.160%	46	0		
919	Ice Harbor	09/1976	09/2012	7.160%	1	0		
920	Ice Harbor	09/1976	09/2026	7.150%	20,472	0		
921	Ice Harbor	09/1976	09/2026	7.150%	228	0		
922	Ice Harbor	09/1977	09/2012	7.160%	46	0		
923	Ice Harbor	09/1977	09/2012	7.160%	1	0		
924	Ice Harbor	09/1978	09/2012	7.160%	46	0		
925	Ice Harbor	09/1978	09/2012	7.160%	1	0		
926	Ice Harbor	09/1979	09/2012	7.160%	46	0		
927	Ice Harbor	09/1979	09/2012	7.160%	1	0		
928	Ice Harbor	09/1980	09/2012	7.160%	46	0		
929	Ice Harbor	09/1980	09/2012	7.160%	1	0		
930	Ice Harbor	09/1981	09/2012	7.160%	46	0		
931	Ice Harbor	09/1981	09/2012	7.160%	1	0		
932	Ice Harbor	09/1982	09/2012	7.160%	46	0		
933	Ice Harbor	09/1982	09/2012	7.160%	1	0		
934	Ice Harbor	09/1983	09/2012	7.160%	46	0		
935	Ice Harbor	09/1983	09/2012	7.160%	1	0		
936	Ice Harbor	09/1985	09/2012	7.160%	41	0		
937	Ice Harbor	09/1985	09/2026	7.150%	21	0		
938	Ice Harbor	09/1986	09/2012	7.160%	137	0		
939	Ice Harbor	09/1987	09/2012	7.160%	3	0		
940	Ice Harbor	09/1987	09/2012	8.875%	71	0		
941	Ice Harbor	09/1987	09/2012	8.875%	1	0		
942	Ice Harbor	09/1988	09/2012	8.500%	8	0		
943	Ice Harbor	09/1988	09/2012	8.500%	57	0		
944	Ice Harbor	09/1989	09/2012	9.250%	51	0		
945	Ice Harbor	09/1990	09/2012	8.875%	427	0		
946	Ice Harbor	09/1991	09/2012	8.750%	348	0		
947	Ice Harbor	09/1992	09/2012	8.500%	177	0		
948	Ice Harbor	09/1993	09/2012	7.875%	3,192	0		
949	Ice Harbor	09/1993	09/2012	7.875%	1,645	0		
950	Ice Harbor	09/1994	09/2029	7.125%	328	0		
951	Ice Harbor	09/1994	09/2029	7.125%	520	0		
952	Ice Harbor	09/1995	09/2000	7.330%	2	0		
953	Ice Harbor	09/1995	09/2019	7.270%	84	0		
954	Ice Harbor	09/1995	09/2019	7.270%	171	0		
955	Ice Harbor	09/1995	09/2019	7.270%	849	0		
956	Ice Harbor	09/1996	09/2031	7.150%	78	78		
957	Ice Harbor	09/1996	09/2041	7.150%	371	371		
958	Ice Harbor	09/1997	09/2022	7.230%	66	0		
959	Ice Harbor	09/1997	09/2047	7.150%	67	67		
960	Ice Harbor	09/1999	09/2049	5.375%	5,516	5,516		
961	Ice Harbor	09/2000	09/2050	6.125%	548	548		
962	Ice Harbor	09/2001	09/2051	5.875%	764	764		
963	Ice Harbor	09/2002	09/2052	5.500%	1,014	1,014		
964	Ice Harbor	09/2003	09/2053	5.125%	50	50		
965	Ice Harbor	09/2004	09/2054	5.375%	3,321	3,321		
966	Ice Harbor	09/2008	09/2058	4.875%	14	14		
967	Ice Harbor	09/2009	09/2059	4.375%	2,615	2,615		
968	Ice Harbor	09/2010	09/2060	4.250%	207	207		
969	Ice Harbor	09/2011	09/2061	3.750%	819	819		
970	Ice Harbor	09/2012	09/2062	3.375%	115	115		
971	Ice Harbor	09/2015	09/2065	3.250%	3,175	3,175		
972	John Day	09/1968	09/2018	7.280%	27,254	0		
973	John Day	09/1969	09/2019	7.270%	96,104	0		
974	John Day	09/1970	09/2020	7.250%	23,656	0		
975	John Day	09/1971	09/2021	7.230%	34,974	0		
976	John Day	09/1972	09/2022	7.210%	11,502	0		
977	John Day	09/1984	09/2022	10.750%	3,677	0		
978	John Day	09/1985	09/2022	7.210%	6,490	0		
979	John Day	09/1985	09/2022	12.375%	1,209	0		
980	John Day	09/1986	09/2022	7.210%	3,227	0		
981	John Day	09/1986	09/2022	11.375%	713	0		
982	John Day	09/1987	09/2022	7.210%	706	0		
983	John Day	09/1987	09/2022	8.875%	4,353	0		
984	John Day	09/1988	09/2022	8.500%	332	0		

TABLE 11A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
985	John Day	09/1988	09/2022	8.500%	199	0		
986	John Day	09/1989	09/2022	7.210%	30	0		
987	John Day	09/1989	09/2022	9.250%	377	0		
988	John Day	09/1990	09/2022	7.210%	37	0		
989	John Day	09/1990	09/2022	8.875%	543	0		
990	John Day	09/1991	09/2022	8.750%	13,218	0		
991	John Day	09/1991	09/2022	8.750%	144	0		
992	John Day	09/1992	09/2022	7.210%	19	0		
993	John Day	09/1992	09/2022	8.500%	95	0		
994	John Day	09/1993	09/2022	7.875%	7,810	0		
995	John Day	09/1993	09/2022	7.875%	9,585	0		
996	John Day	09/1994	09/2019	7.125%	14	0		
997	John Day	09/1994	09/2029	7.125%	1,252	0		
998	John Day	09/1995	09/2000	7.330%	2	0		
999	John Day	09/1995	09/2000	7.330%	9	0		
1000	John Day	09/1995	09/2020	7.250%	79	0		
1001	John Day	09/1995	09/2035	7.150%	22	22		
1002	John Day	09/1995	09/2035	7.150%	52	52		
1003	John Day	09/1995	09/2035	7.150%	121	121		
1004	John Day	09/1995	09/2045	7.150%	37	37		
1005	John Day	09/1995	09/2045	7.150%	608	608		
1006	John Day	09/1995	09/2045	7.150%	7,653	7,653		
1007	John Day	09/1996	09/2011	7.130%	237	0		
1008	John Day	09/1996	09/2016	7.290%	1,072	0		
1009	John Day	09/1997	09/2022	7.230%	133	0		
1010	John Day	09/1997	09/2047	7.150%	179	179		
1011	John Day	09/1999	09/2049	5.375%	3,510	3,510		
1012	John Day	09/2000	09/2050	6.125%	2,761	2,761		
1013	John Day	09/2001	09/2051	5.875%	619	619		
1014	John Day	09/2004	09/2054	5.375%	2,830	2,830		
1015	John Day	09/2005	09/2055	5.125%	2,827	2,827		
1016	John Day	09/2006	09/2056	4.500%	601	601		
1017	John Day	09/2007	09/2057	5.000%	233	233		
1018	John Day	09/2009	09/2059	4.375%	1,548	1,548		
1019	John Day	09/2010	09/2060	4.250%	356	356		
1020	John Day	09/2011	09/2061	3.750%	175	175		
1021	John Day	09/2012	09/2062	3.375%	6,161	6,161		
1022	John Day	09/2013	09/2063	2.875%	17	17		
1023	John Day	09/2015	09/2065	3.250%	163	163		
1024	Libby	09/1975	09/2025	7.160%	54,644	0		
1025	Libby	09/1976	09/2026	7.150%	153,432	0		
1026	Libby	09/1977	09/2026	7.150%	1,465	0		
1027	Libby	09/1978	09/2026	7.150%	1,465	0		
1028	Libby	09/1979	09/2026	7.150%	1,465	0		
1029	Libby	09/1980	09/2026	7.150%	1,465	0		
1030	Libby	09/1981	09/2026	7.150%	1,465	0		
1031	Libby	09/1982	09/2026	7.150%	1,465	0		
1032	Libby	09/1983	09/2026	7.150%	1,465	0		
1033	Libby	09/1984	09/2026	10.750%	104	0		
1034	Libby	09/1985	09/2026	7.150%	518	0		
1035	Libby	09/1986	09/2026	7.150%	283	0		
1036	Libby	09/1987	09/2026	7.150%	2	0		
1037	Libby	09/1988	09/2026	8.505%	35	0		
1038	Libby	09/1988	09/2038	7.150%	18,043	14,781		
1039	Libby	09/1989	09/2026	7.150%	1	0		
1040	Libby	09/1989	09/2026	9.250%	131	0		
1041	Libby	09/1990	09/2026	8.875%	11	0		
1042	Libby	09/1991	09/2026	8.750%	134	0		
1043	Libby	09/1992	09/2026	8.500%	100	0		
1044	Libby	09/1992	09/2026	8.500%	70	0		
1045	Libby	09/1993	09/2026	7.875%	600	0		
1046	Libby	09/1994	09/2029	7.125%	215	0		
1047	Libby	09/1994	09/2029	7.150%	286	152		
1048	Libby	09/1995	09/2030	7.150%	15	15		
1049	Libby	09/1995	09/2030	7.150%	41	41		
1050	Libby	09/1995	09/2030	7.150%	94	94		
1051	Libby	09/1997	09/2022	7.230%	432	0		
1052	Libby	09/1997	09/2047	7.150%	660	660		
1053	Libby	09/2001	09/2051	5.875%	5,562	5,562		
1054	Libby	09/2008	09/2058	4.875%	1,567	1,567		
1055	Libby	09/2010	09/2060	4.250%	40	40		
1056	Libby	09/2011	09/2061	3.750%	152	152		
1057	Libby	09/2012	09/2062	3.375%	16	16		
1058	Little Goose	09/1970	09/2020	7.250%	22,326	0		
1059	Little Goose	09/1971	09/2021	7.230%	42,962	0		
1060	Little Goose	09/1972	09/2021	7.230%	28	0		
1061	Little Goose	09/1973	09/2021	7.230%	29	0		
1062	Little Goose	09/1974	09/2021	7.230%	28	0		
1063	Little Goose	09/1975	09/2021	7.230%	29	0		
1064	Little Goose	09/1976	09/2021	7.230%	28	0		
1065	Little Goose	09/1977	09/2021	7.230%	29	0		
1066	Little Goose	09/1978	09/2021	7.230%	28	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1067	Little Goose	09/1978	09/2028	7.150%	49,578	49,578		
1068	Little Goose	09/1979	09/2021	7.230%	29	0		
1069	Little Goose	09/1980	09/2021	7.230%	28	0		
1070	Little Goose	09/1981	09/2021	7.230%	29	0		
1071	Little Goose	09/1982	09/2021	7.230%	28	0		
1072	Little Goose	09/1983	09/2021	7.230%	29	0		
1073	Little Goose	09/1984	09/2021	10.750%	201	0		
1074	Little Goose	09/1985	09/2021	7.230%	174	0		
1075	Little Goose	09/1985	09/2028	7.150%	47	47		
1076	Little Goose	09/1986	09/2021	7.230%	239	0		
1077	Little Goose	09/1987	09/2021	7.230%	6	0		
1078	Little Goose	09/1987	09/2021	8.875%	72	0		
1079	Little Goose	09/1988	09/2021	8.500%	12	0		
1080	Little Goose	09/1988	09/2021	8.500%	68	0		
1081	Little Goose	09/1989	09/2021	9.250%	77	0		
1082	Little Goose	09/1990	09/2021	8.875%	408	0		
1083	Little Goose	09/1990	09/2021	8.875%	21	0		
1084	Little Goose	09/1991	09/2021	8.750%	266	0		
1085	Little Goose	09/1992	09/2021	8.500%	66	0		
1086	Little Goose	09/1992	09/2021	8.500%	27	0		
1087	Little Goose	09/1993	09/2021	7.875%	276	0		
1088	Little Goose	09/1993	09/2021	7.875%	3,359	0		
1089	Little Goose	09/1994	09/2019	7.125%	37	0		
1090	Little Goose	09/1994	09/2029	7.125%	2,044	0		
1091	Little Goose	09/1995	09/2040	7.150%	17	17		
1092	Little Goose	09/1995	09/2040	7.150%	450	450		
1093	Little Goose	09/1995	09/2040	7.150%	733	733		
1094	Little Goose	09/1996	09/2046	7.150%	10	10		
1095	Little Goose	09/1996	09/2046	7.150%	10	10		
1096	Little Goose	09/1996	09/2046	7.150%	211	211		
1097	Little Goose	09/1996	09/2046	7.150%	241	241		
1098	Little Goose	09/1996	09/2046	7.150%	520	520		
1099	Little Goose	09/1996	09/2046	7.150%	3,909	3,909		
1100	Little Goose	09/1997	09/2047	7.150%	1	1		
1101	Little Goose	09/2001	09/2051	5.875%	4,608	4,608		
1102	Little Goose	09/2002	09/2052	5.500%	27	27		
1103	Little Goose	09/2003	09/2053	5.125%	146	146		
1104	Little Goose	09/2004	09/2054	5.375%	67	67		
1105	Little Goose	09/2008	09/2058	4.875%	13	13		
1106	Little Goose	09/2009	09/2059	4.375%	3,171	3,171		
1107	Little Goose	09/2010	09/2060	4.250%	30	30		
1108	Little Goose	09/2013	09/2063	2.875%	66	66		
1109	Lookout Dam	09/1955	09/2005	6.910%	34,290	0		
1110	Lookout Dam	09/1956	09/2005	6.910%	52	0		
1111	Lookout Dam	09/1957	09/2005	6.910%	51	0		
1112	Lookout Dam	09/1958	09/2005	6.910%	51	0		
1113	Lookout Dam	09/1959	09/2005	6.910%	51	0		
1114	Lookout Dam	09/1960	09/2005	6.910%	51	0		
1115	Lookout Dam	09/1961	09/2005	6.910%	52	0		
1116	Lookout Dam	09/1962	09/2005	6.910%	51	0		
1117	Lookout Dam	09/1963	09/2005	6.910%	51	0		
1118	Lookout Dam	09/1964	09/2005	6.910%	51	0		
1119	Lookout Dam	09/1965	09/2005	6.910%	51	0		
1120	Lookout Dam	09/1966	09/2005	6.910%	51	0		
1121	Lookout Dam	09/1967	09/2005	6.910%	52	0		
1122	Lookout Dam	09/1968	09/2005	6.910%	51	0		
1123	Lookout Dam	09/1969	09/2005	6.910%	51	0		
1124	Lookout Dam	09/1970	09/2005	6.910%	51	0		
1125	Lookout Dam	09/1971	09/2005	6.910%	51	0		
1126	Lookout Dam	09/1972	09/2005	6.910%	51	0		
1127	Lookout Dam	09/1973	09/2005	6.910%	52	0		
1128	Lookout Dam	09/1974	09/2005	6.910%	51	0		
1129	Lookout Dam	09/1975	09/2005	6.910%	51	0		
1130	Lookout Dam	09/1976	09/2005	6.910%	51	0		
1131	Lookout Dam	09/1977	09/2005	6.910%	51	0		
1132	Lookout Dam	09/1978	09/2005	6.910%	51	0		
1133	Lookout Dam	09/1979	09/2005	6.910%	52	0		
1134	Lookout Dam	09/1980	09/2005	6.910%	51	0		
1135	Lookout Dam	09/1981	09/2005	6.910%	51	0		
1136	Lookout Dam	09/1982	09/2005	6.910%	51	0		
1137	Lookout Dam	09/1983	09/2005	6.910%	51	0		
1138	Lookout Dam	09/1984	09/2005	10.750%	185	0		
1139	Lookout Dam	09/1985	09/2005	6.910%	52	0		
1140	Lookout Dam	09/1986	09/2005	6.910%	42	0		
1141	Lookout Dam	09/1987	09/2005	6.910%	9	0		
1142	Lookout Dam	09/1987	09/2005	8.875%	12	0		
1143	Lookout Dam	09/1988	09/2005	8.500%	46	0		
1144	Lookout Dam	09/1988	09/2005	8.500%	17	0		
1145	Lookout Dam	09/1989	09/2005	9.250%	23	0		
1146	Lookout Dam	09/1990	09/2005	8.875%	147	0		
1147	Lookout Dam	09/1990	09/2005	8.875%	4	0		
1148	Lookout Dam	09/1991	09/2005	8.750%	6	0		

TABLE 11A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1149	Lookout Dam	09/1991	09/2005	8.750%	50	0		
1150	Lookout Dam	09/1992	09/2005	8.500%	181	0		
1151	Lookout Dam	09/1992	09/2005	8.500%	4	0		
1152	Lookout Dam	09/1993	09/2005	7.875%	18	0		
1153	Lookout Dam	09/1993	09/2005	7.875%	189	0		
1154	Lookout Dam	09/1994	09/2019	7.125%	73	0		
1155	Lookout Dam	09/1995	09/2045	7.150%	80	39		
1156	Lookout Dam	09/1995	09/2045	7.150%	33	33		
1157	Lookout Dam	09/1995	09/2045	7.860%	9	0		
1158	Lookout Dam	09/1995	09/2045	7.860%	15	0		
1159	Lookout Dam	09/1995	09/2045	7.860%	31	0		
1160	Lookout Dam	09/1995	09/2045	7.860%	157	0		
1161	Lookout Dam	09/2000	09/2050	6.125%	5,098	5,098		
1162	Lookout Dam	09/2003	09/2053	5.125%	135	135		
1163	Lookout Dam	09/2005	09/2055	5.125%	7,355	7,355		
1164	Lookout Dam	09/2007	09/2057	5.000%	572	572		
1165	Lookout Dam	09/2011	09/2061	3.750%	17	17		
1166	Lookout Dam	09/2012	09/2062	3.375%	294	294		
1167	Lost Creek	09/1977	09/2027	7.150%	14,293	11,934		
1168	Lost Creek	09/1978	09/2027	7.150%	58	58		
1169	Lost Creek	09/1979	09/2027	7.150%	60	60		
1170	Lost Creek	09/1980	09/2027	7.150%	60	60		
1171	Lost Creek	09/1981	09/2027	7.150%	60	60		
1172	Lost Creek	09/1982	09/2027	7.150%	60	60		
1173	Lost Creek	09/1983	09/2027	7.150%	60	60		
1174	Lost Creek	09/1984	09/2027	10.750%	243	0		
1175	Lost Creek	09/1985	09/2027	7.150%	12	12		
1176	Lost Creek	09/1986	09/2027	7.150%	6	6		
1177	Lost Creek	09/1986	09/2027	11.375%	5	0		
1178	Lost Creek	09/1987	09/2027	7.150%	4	4		
1179	Lost Creek	09/1987	09/2027	8.875%	3	0		
1180	Lost Creek	09/1988	09/2027	8.500%	7	0		
1181	Lost Creek	09/1989	09/2027	9.250%	9	0		
1182	Lost Creek	09/1990	09/2027	8.875%	1	0		
1183	Lost Creek	09/1991	09/2027	8.750%	31	0		
1184	Lost Creek	09/1992	09/2027	8.500%	1	0		
1185	Lost Creek	09/1992	09/2027	8.500%	1	0		
1186	Lost Creek	09/1993	09/2027	7.875%	1	0		
1187	Lost Creek	09/1993	09/2027	7.875%	14	0		
1188	Lost Creek	09/1995	09/2000	7.330%	4	0		
1189	Lost Creek	09/1995	09/2045	7.150%	94	94		
1190	Lost Creek	09/1996	09/2031	7.150%	31	31		
1191	Lost Creek	09/1996	09/2046	7.150%	24	24		
1192	Lost Creek	09/2001	09/2051	5.875%	147	147		
1193	Lost Creek	09/2011	09/2061	3.750%	7	7		
1194	Lower Granite	09/1975	09/2025	7.160%	119,237	0		
1195	Lower Granite	09/1976	09/2025	7.160%	510	0		
1196	Lower Granite	09/1977	09/2025	7.160%	510	0		
1197	Lower Granite	09/1978	09/2025	7.160%	510	0		
1198	Lower Granite	09/1978	09/2028	7.150%	40,611	40,611		
1199	Lower Granite	09/1979	09/2025	7.160%	510	0		
1200	Lower Granite	09/1980	09/2025	7.160%	510	0		
1201	Lower Granite	09/1981	09/2025	7.160%	510	0		
1202	Lower Granite	09/1982	09/2025	7.160%	510	0		
1203	Lower Granite	09/1983	09/2025	7.160%	510	0		
1204	Lower Granite	09/1984	09/2025	10.750%	311	0		
1205	Lower Granite	09/1985	09/2025	7.160%	328	0		
1206	Lower Granite	09/1986	09/2025	7.160%	215	0		
1207	Lower Granite	09/1986	09/2025	11.375%	4	0		
1208	Lower Granite	09/1987	09/2025	7.160%	8	0		
1209	Lower Granite	09/1987	09/2025	8.875%	60	0		
1210	Lower Granite	09/1988	09/2025	8.500%	22	0		
1211	Lower Granite	09/1988	09/2025	8.500%	95	0		
1212	Lower Granite	09/1989	09/2025	9.250%	112	0		
1213	Lower Granite	09/1990	09/2025	8.875%	392	0		
1214	Lower Granite	09/1991	09/2025	8.750%	281	0		
1215	Lower Granite	09/1991	09/2025	8.750%	6	0		
1216	Lower Granite	09/1992	09/2025	8.500%	83	0		
1217	Lower Granite	09/1992	09/2025	8.500%	121	0		
1218	Lower Granite	09/1993	09/2025	7.875%	26	0		
1219	Lower Granite	09/1993	09/2025	7.875%	3,272	0		
1220	Lower Granite	09/1994	09/2019	7.125%	38	0		
1221	Lower Granite	09/1994	09/2029	7.150%	3,543	1,551		
1222	Lower Granite	09/1995	09/2017	7.290%	77	0		
1223	Lower Granite	09/1995	09/2017	7.290%	388	0		
1224	Lower Granite	09/1995	09/2017	7.290%	458	0		
1225	Lower Granite	09/1995	09/2025	7.160%	96	0		
1226	Lower Granite	09/1996	09/2011	7.130%	255	0		
1227	Lower Granite	09/1996	09/2031	7.150%	206	206		
1228	Lower Granite	09/1996	09/2046	7.150%	9	9		
1229	Lower Granite	09/1996	09/2046	7.150%	625	625		
1230	Lower Granite	09/1997	09/2047	7.150%	677	677		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1231	Lower Granite	09/1999	09/2049	5.375%	856	856		
1232	Lower Granite	09/2001	09/2051	5.875%	2,025	2,025		
1233	Lower Granite	09/2002	09/2052	5.500%	1,275	1,275		
1234	Lower Granite	09/2003	09/2053	5.125%	42	42		
1235	Lower Granite	09/2005	09/2055	5.125%	393	393		
1236	Lower Granite	09/2008	09/2058	4.875%	24	24		
1237	Lower Granite	09/2009	09/2059	4.375%	5,669	5,669		
1238	Lower Granite	09/2010	09/2060	4.250%	1,156	1,156		
1239	Lower Granite	09/2011	09/2061	3.750%	8	8		
1240	Lower Granite	09/2014	09/2064	3.875%	2,644	2,644		
1241	Lower Granite	09/2015	09/2065	3.250%	1,599	1,599		
1242	Lower Monument	09/1969	09/2019	7.270%	26,974	0		
1243	Lower Monument	09/1970	09/2020	7.250%	51,218	0		
1244	Lower Monument	09/1971	09/2020	7.250%	214	0		
1245	Lower Monument	09/1972	09/2020	7.250%	214	0		
1246	Lower Monument	09/1973	09/2020	7.250%	214	0		
1247	Lower Monument	09/1974	09/2020	7.250%	214	0		
1248	Lower Monument	09/1975	09/2020	7.250%	214	0		
1249	Lower Monument	09/1976	09/2020	7.250%	214	0		
1250	Lower Monument	09/1977	09/2020	7.250%	214	0		
1251	Lower Monument	09/1978	09/2020	7.250%	214	0		
1252	Lower Monument	09/1979	09/2020	7.250%	214	0		
1253	Lower Monument	09/1979	09/2029	7.150%	40,669	40,669		
1254	Lower Monument	09/1980	09/2020	7.250%	214	0		
1255	Lower Monument	09/1981	09/2020	7.250%	214	0		
1256	Lower Monument	09/1982	09/2020	7.250%	214	0		
1257	Lower Monument	09/1983	09/2020	7.250%	214	0		
1258	Lower Monument	09/1985	09/2020	7.250%	8	0		
1259	Lower Monument	09/1985	09/2029	7.150%	256	256		
1260	Lower Monument	09/1986	09/2020	7.250%	132	0		
1261	Lower Monument	09/1987	09/2020	7.250%	3	0		
1262	Lower Monument	09/1987	09/2020	8.875%	50	0		
1263	Lower Monument	09/1988	09/2020	8.500%	1	0		
1264	Lower Monument	09/1988	09/2020	8.500%	58	0		
1265	Lower Monument	09/1989	09/2020	9.250%	93	0		
1266	Lower Monument	09/1990	09/2020	8.875%	358	0		
1267	Lower Monument	09/1991	09/2020	8.750%	594	0		
1268	Lower Monument	09/1992	09/2020	8.500%	4,484	0		
1269	Lower Monument	09/1993	09/2020	7.875%	24	0		
1270	Lower Monument	09/1993	09/2020	7.875%	2,175	0		
1271	Lower Monument	09/1994	09/2019	7.125%	107	0		
1272	Lower Monument	09/1994	09/2029	7.125%	2,167	0		
1273	Lower Monument	09/1995	09/2000	7.330%	6	0		
1274	Lower Monument	09/1995	09/2045	7.150%	41	41		
1275	Lower Monument	09/1995	09/2045	7.150%	99	99		
1276	Lower Monument	09/1995	09/2045	7.150%	624	624		
1277	Lower Monument	09/1995	09/2045	7.150%	1,122	1,122		
1278	Lower Monument	09/1996	09/2016	7.290%	668	0		
1279	Lower Monument	09/1996	09/2021	7.230%	37	0		
1280	Lower Monument	09/1996	09/2021	7.230%	51	0		
1281	Lower Monument	09/1996	09/2036	7.150%	264	264		
1282	Lower Monument	09/1996	09/2046	7.150%	10	10		
1283	Lower Monument	09/2001	09/2051	5.875%	3,301	3,301		
1284	Lower Monument	09/2002	09/2052	5.500%	29	29		
1285	Lower Monument	09/2003	09/2053	5.125%	22	22		
1286	Lower Monument	09/2004	09/2054	5.375%	3,423	3,423		
1287	Lower Monument	09/2005	09/2055	5.125%	527	527		
1288	Lower Monument	09/2006	09/2056	4.500%	285	285		
1289	Lower Monument	09/2008	09/2058	4.875%	9	9		
1290	Lower Monument	09/2009	09/2059	4.375%	2,332	2,332		
1291	Lower Monument	09/2012	09/2062	3.375%	89	89		
1292	Lower Monument	09/2014	09/2064	3.875%	1,430	1,430		
1293	Lower Snake Fish and Wildlife	09/1983	09/2033	7.150%	30,488	9,472		
1294	Lower Snake Fish and Wildlife	09/1985	09/2035	7.150%	47,921	47,921		
1295	Lower Snake Fish and Wildlife	09/1987	09/2037	7.150%	72,536	72,536		
1296	Lower Snake Fish and Wildlife	09/1988	09/2038	7.150%	805	805		
1297	Lower Snake Fish and Wildlife	09/1990	09/2040	7.150%	1,557	1,557		
1298	Lower Snake Fish and Wildlife	09/1991	09/2041	7.150%	4,411	4,411		
1299	Lower Snake Fish and Wildlife	09/1993	09/2043	7.150%	71,632	71,632		
1300	Lower Snake Fish and Wildlife	09/1994	09/2044	7.150%	4,722	4,722		
1301	Lower Snake Fish and Wildlife	09/1996	09/2046	7.150%	12,085	12,085		
1302	Lower Snake Fish and Wildlife	09/1997	09/2047	7.150%	2,173	2,173		
1303	Lower Snake Fish and Wildlife	09/1999	09/2049	5.375%	7	7		
1304	Lower Snake Fish and Wildlife	09/2000	09/2050	6.125%	1,529	1,529		
1305	Lower Snake Fish and Wildlife	09/2001	09/2051	5.875%	325	325		
1306	Lower Snake Fish and Wildlife	09/2002	09/2052	5.500%	890	890		
1307	Lower Snake Fish and Wildlife	09/2003	09/2053	5.125%	98	98		
1308	Lower Snake Fish and Wildlife	09/2004	09/2054	5.375%	230	230		
1309	Lower Snake Fish and Wildlife	09/2005	09/2055	5.125%	4	4		
1310	Lower Snake Fish and Wildlife	09/2006	09/2056	4.500%	379	379		
1311	Lower Snake Fish and Wildlife	09/2008	09/2058	4.875%	74	74		
1312	Lower Snake Fish and Wildlife	09/2009	09/2059	4.375%	1,540	1,540		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1313	Lower Snake Fish and Wildlife	09/2010	09/2060	4.250%	6	6		
1314	Lower Snake Fish and Wildlife	09/2011	09/2061	3.750%	122	122		
1315	Lower Snake Fish and Wildlife	09/2014	09/2064	3.875%	222	222		
1316	McNary	09/1954	09/2004	6.880%	80,256	0		
1317	McNary	09/1955	09/2005	6.910%	53,493	0		
1318	McNary	09/1956	09/2006	6.950%	38,748	0		
1319	McNary	09/1957	09/2007	6.980%	24,985	0		
1320	McNary	09/1958	09/2007	6.980%	468	0		
1321	McNary	09/1959	09/2007	6.980%	468	0		
1322	McNary	09/1960	09/2007	6.980%	468	0		
1323	McNary	09/1961	09/2007	6.980%	468	0		
1324	McNary	09/1962	09/2007	6.980%	467	0		
1325	McNary	09/1963	09/2007	6.980%	468	0		
1326	McNary	09/1964	09/2007	6.980%	468	0		
1327	McNary	09/1965	09/2007	6.980%	468	0		
1328	McNary	09/1966	09/2007	6.980%	468	0		
1329	McNary	09/1967	09/2007	6.980%	467	0		
1330	McNary	09/1968	09/2007	6.980%	468	0		
1331	McNary	09/1969	09/2007	6.980%	468	0		
1332	McNary	09/1970	09/2007	6.980%	468	0		
1333	McNary	09/1971	09/2007	6.980%	468	0		
1334	McNary	09/1972	09/2007	6.980%	468	0		
1335	McNary	09/1973	09/2007	6.980%	467	0		
1336	McNary	09/1974	09/2007	6.980%	468	0		
1337	McNary	09/1975	09/2007	6.980%	468	0		
1338	McNary	09/1976	09/2007	6.980%	468	0		
1339	McNary	09/1977	09/2007	6.980%	467	0		
1340	McNary	09/1978	09/2007	6.980%	468	0		
1341	McNary	09/1979	09/2007	6.980%	468	0		
1342	McNary	09/1980	09/2007	6.980%	468	0		
1343	McNary	09/1981	09/2007	6.980%	468	0		
1344	McNary	09/1982	09/2007	6.980%	467	0		
1345	McNary	09/1983	09/2007	6.980%	468	0		
1346	McNary	09/1985	09/2007	6.980%	557	0		
1347	McNary	09/1986	09/2007	6.980%	454	0		
1348	McNary	09/1987	09/2007	6.980%	24	0		
1349	McNary	09/1995	09/2010	7.090%	509	0		
1350	McNary	09/1995	09/2045	7.150%	16	16		
1351	McNary	09/1996	09/2006	6.950%	778	0		
1352	McNary	09/1996	09/2011	7.130%	3	0		
1353	McNary	09/1996	09/2026	7.150%	74	0		
1354	McNary	09/1996	09/2026	7.150%	277	0		
1355	McNary	09/1996	09/2046	7.150%	619	619		
1356	McNary	09/1997	09/2032	7.150%	30	30		
1357	McNary	09/2001	09/2051	5.875%	1,046	1,046		
1358	McNary	09/2003	09/2053	5.125%	97	97		
1359	McNary	09/2004	09/2054	5.375%	6,138	6,138		
1360	McNary	09/2005	09/2055	5.125%	550	550		
1361	McNary	09/2006	09/2056	4.500%	4,080	4,080		
1362	McNary	09/2008	09/2058	4.875%	215	215		
1363	McNary	09/2011	09/2061	3.750%	565	565		
1364	McNary	09/2012	09/2062	3.375%	11	11		
1365	McNary	09/2013	09/2063	2.875%	1,000	1,000		
1366	McNary	09/2014	09/2064	3.875%	759	759		
1367	Minidoka/Palisades	09/1909	09/1959	3.000%	854	0		
1368	Minidoka/Palisades	09/1909	09/1959	3.000%	226	0		
1369	Minidoka/Palisades	09/1910	09/1960	3.000%	1,709	0		
1370	Minidoka/Palisades	09/1910	09/1960	3.000%	451	0		
1371	Minidoka/Palisades	09/1911	09/1961	3.000%	1,709	0		
1372	Minidoka/Palisades	09/1911	09/1961	3.000%	451	0		
1373	Minidoka/Palisades	09/1927	09/1977	3.000%	854	0		
1374	Minidoka/Palisades	09/1927	09/1977	3.000%	226	0		
1375	Minidoka/Palisades	09/1942	09/1992	3.000%	854	0		
1376	Minidoka/Palisades	09/1942	09/1992	3.000%	226	0		
1377	Minidoka/Palisades	09/1957	09/2007	3.000%	2,561	0		
1378	Minidoka/Palisades	09/1957	09/2007	3.000%	677	0		
1379	Minidoka/Palisades	09/1958	09/2008	3.000%	854	0		
1380	Minidoka/Palisades	09/1958	09/2008	3.000%	226	0		
1381	Minidoka/Palisades	09/1959	09/2008	3.000%	108	0		
1382	Minidoka/Palisades	09/1959	09/2008	3.000%	28	0		
1383	Minidoka/Palisades	09/1960	09/2008	3.000%	108	0		
1384	Minidoka/Palisades	09/1960	09/2008	3.000%	29	0		
1385	Minidoka/Palisades	09/1961	09/2008	3.000%	108	0		
1386	Minidoka/Palisades	09/1961	09/2008	3.000%	29	0		
1387	Minidoka/Palisades	09/1962	09/2008	3.000%	108	0		
1388	Minidoka/Palisades	09/1962	09/2008	3.000%	28	0		
1389	Minidoka/Palisades	09/1963	09/2008	3.000%	108	0		
1390	Minidoka/Palisades	09/1963	09/2008	3.000%	29	0		
1391	Minidoka/Palisades	09/1964	09/2008	3.000%	108	0		
1392	Minidoka/Palisades	09/1964	09/2008	3.000%	28	0		
1393	Minidoka/Palisades	09/1965	09/2008	3.000%	108	0		
1394	Minidoka/Palisades	09/1965	09/2008	3.000%	29	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1395	Minidoka/Palisades	09/1966	09/2008	3.000%	108	0		
1396	Minidoka/Palisades	09/1966	09/2008	3.000%	29	0		
1397	Minidoka/Palisades	09/1967	09/2008	3.000%	108	0		
1398	Minidoka/Palisades	09/1967	09/2008	3.000%	28	0		
1399	Minidoka/Palisades	09/1968	09/2008	3.000%	108	0		
1400	Minidoka/Palisades	09/1968	09/2008	3.000%	29	0		
1401	Minidoka/Palisades	09/1969	09/2008	3.000%	3	0		
1402	Minidoka/Palisades	09/1969	09/2008	3.000%	28	0		
1403	Minidoka/Palisades	09/1970	09/2008	3.000%	108	0		
1404	Minidoka/Palisades	09/1970	09/2008	3.000%	29	0		
1405	Minidoka/Palisades	09/1971	09/2008	3.000%	108	0		
1406	Minidoka/Palisades	09/1971	09/2008	3.000%	29	0		
1407	Minidoka/Palisades	09/1972	09/2008	3.000%	108	0		
1408	Minidoka/Palisades	09/1972	09/2008	3.000%	28	0		
1409	Minidoka/Palisades	09/1973	09/2008	3.000%	108	0		
1410	Minidoka/Palisades	09/1973	09/2008	3.000%	29	0		
1411	Minidoka/Palisades	09/1974	09/2008	3.000%	108	0		
1412	Minidoka/Palisades	09/1974	09/2008	3.000%	28	0		
1413	Minidoka/Palisades	09/1975	09/2008	3.000%	108	0		
1414	Minidoka/Palisades	09/1975	09/2008	3.000%	29	0		
1415	Minidoka/Palisades	09/1976	09/2008	3.000%	108	0		
1416	Minidoka/Palisades	09/1976	09/2008	3.000%	29	0		
1417	Minidoka/Palisades	09/1977	09/2008	7.020%	83	0		
1418	Minidoka/Palisades	09/1977	09/2008	7.020%	28	0		
1419	Minidoka/Palisades	09/1978	09/2008	7.020%	75	0		
1420	Minidoka/Palisades	09/1978	09/2008	7.020%	20	0		
1421	Minidoka/Palisades	09/1979	09/2008	7.020%	75	0		
1422	Minidoka/Palisades	09/1979	09/2008	7.020%	19	0		
1423	Minidoka/Palisades	09/1980	09/2008	7.020%	75	0		
1424	Minidoka/Palisades	09/1980	09/2008	7.020%	20	0		
1425	Minidoka/Palisades	09/1981	09/2008	7.020%	75	0		
1426	Minidoka/Palisades	09/1981	09/2008	7.020%	20	0		
1427	Minidoka/Palisades	09/1982	09/2008	7.020%	75	0		
1428	Minidoka/Palisades	09/1982	09/2008	7.020%	19	0		
1429	Minidoka/Palisades	09/1983	09/2008	7.020%	65	0		
1430	Minidoka/Palisades	09/1983	09/2008	7.020%	20	0		
1431	Minidoka/Palisades	09/1984	09/2008	10.075%	44	0		
1432	Minidoka/Palisades	09/1984	09/2008	10.075%	11	0		
1433	Minidoka/Palisades	09/1985	09/2008	7.020%	21	0		
1434	Minidoka/Palisades	09/1986	09/2008	7.020%	21	0		
1435	Minidoka/Palisades	09/1986	09/2008	11.375%	48	0		
1436	Minidoka/Palisades	09/1987	09/2008	7.020%	16	0		
1437	Minidoka/Palisades	09/1988	09/2008	8.500%	31	0		
1438	Minidoka/Palisades	09/1989	09/2008	9.250%	20	0		
1439	Minidoka/Palisades	09/1990	09/2008	8.875%	33	0		
1440	Minidoka/Palisades	09/1991	09/2008	8.750%	62	0		
1441	Minidoka/Palisades	09/1991	09/2008	8.750%	11	0		
1442	Minidoka/Palisades	09/1991	09/2008	8.750%	32	0		
1443	Minidoka/Palisades	09/1992	09/2008	8.500%	6	0		
1444	Minidoka/Palisades	09/1994	09/2029	7.125%	351	0		
1445	Minidoka/Palisades	09/1995	09/2000	7.330%	6	0		
1446	Minidoka/Palisades	09/1995	09/2010	7.890%	40	0		
1447	Minidoka/Palisades	09/1996	09/2011	7.130%	54	0		
1448	Minidoka/Palisades	09/1997	09/2007	6.950%	66	0		
1449	Minidoka/Palisades	09/1997	09/2047	7.150%	50,911	50,911		
1450	Minidoka/Palisades	09/2001	09/2051	5.875%	42	42		
1451	Minidoka/Palisades	09/2012	09/2062	3.375%	7	7		
1452	Minidoka/Palisades	09/2015	09/2065	3.250%	19,237	19,237		
1453	RRP - Green Springs	09/2001	09/2051	5.875%	11,145	11,145		
1454	RRP - Green Springs	09/2012	09/2062	3.375%	2	2		
1455	RRP - Green Springs	09/2013	09/2063	2.875%	1	1		
1456	The Dalles	09/1957	09/2007	2.500%	15,908	0		
1457	The Dalles	09/1958	09/2008	7.020%	45,837	0		
1458	The Dalles	09/1959	09/2009	7.060%	40,415	0		
1459	The Dalles	09/1960	09/2010	7.090%	39,179	0		
1460	The Dalles	09/1961	09/2011	7.130%	9,492	0		
1461	The Dalles	09/1962	09/2011	7.130%	56	0		
1462	The Dalles	09/1963	09/2011	7.130%	57	0		
1463	The Dalles	09/1964	09/2011	7.130%	57	0		
1464	The Dalles	09/1965	09/2011	7.130%	56	0		
1465	The Dalles	09/1966	09/2011	7.130%	57	0		
1466	The Dalles	09/1967	09/2011	7.130%	57	0		
1467	The Dalles	09/1968	09/2011	7.130%	56	0		
1468	The Dalles	09/1969	09/2011	7.130%	57	0		
1469	The Dalles	09/1970	09/2011	7.130%	57	0		
1470	The Dalles	09/1971	09/2011	7.130%	56	0		
1471	The Dalles	09/1972	09/2011	7.130%	57	0		
1472	The Dalles	09/1973	09/2011	7.130%	57	0		
1473	The Dalles	09/1973	09/2023	7.190%	21,983	0		
1474	The Dalles	09/1974	09/2011	7.130%	56	0		
1475	The Dalles	09/1974	09/2024	7.170%	7,268	0		
1476	The Dalles	09/1975	09/2011	7.130%	57	0		

TABLE 11A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1477	The Dalles	09/1976	09/2011	7.130%	57	0		
1478	The Dalles	09/1977	09/2011	7.130%	56	0		
1479	The Dalles	09/1978	09/2011	7.130%	57	0		
1480	The Dalles	09/1979	09/2011	7.130%	57	0		
1481	The Dalles	09/1980	09/2011	7.130%	56	0		
1482	The Dalles	09/1981	09/2011	7.130%	57	0		
1483	The Dalles	09/1982	09/2011	7.130%	57	0		
1484	The Dalles	09/1983	09/2011	7.130%	56	0		
1485	The Dalles	09/1984	09/2011	10.750%	961	0		
1486	The Dalles	09/1985	09/2011	7.130%	95	0		
1487	The Dalles	09/1985	09/2011	12.375%	280	0		
1488	The Dalles	09/1986	09/2011	7.130%	95	0		
1489	The Dalles	09/1986	09/2011	11.375%	4	0		
1490	The Dalles	09/1987	09/2011	7.130%	1,417	0		
1491	The Dalles	09/1987	09/2011	8.875%	81	0		
1492	The Dalles	09/1988	09/2011	8.500%	685	0		
1493	The Dalles	09/1988	09/2011	8.500%	1	0		
1494	The Dalles	09/1989	09/2011	9.250%	898	0		
1495	The Dalles	09/1990	09/2011	8.875%	319	0		
1496	The Dalles	09/1990	09/2011	8.875%	745	0		
1497	The Dalles	09/1991	09/2011	8.750%	89	0		
1498	The Dalles	09/1991	09/2011	8.750%	2,452	0		
1499	The Dalles	09/1992	09/2011	8.500%	57	0		
1500	The Dalles	09/1992	09/2011	8.500%	130	0		
1501	The Dalles	09/1993	09/2011	7.875%	2,028	0		
1502	The Dalles	09/1993	09/2011	7.875%	2,929	0		
1503	The Dalles	09/1994	09/2029	7.125%	1,425	0		
1504	The Dalles	09/1996	09/2008	7.020%	196	0		
1505	The Dalles	09/1996	09/2011	7.130%	457	0		
1506	The Dalles	09/1996	09/2046	7.150%	1,991	1,991		
1507	The Dalles	09/2000	09/2050	6.125%	2,588	2,588		
1508	The Dalles	09/2002	09/2052	5.500%	1,226	1,226		
1509	The Dalles	09/2004	09/2054	5.375%	182	182		
1510	The Dalles	09/2005	09/2055	5.125%	36,019	36,019		
1511	The Dalles	09/2006	09/2056	4.500%	2,030	2,030		
1512	The Dalles	09/2007	09/2057	5.000%	140	140		
1513	The Dalles	09/2008	09/2058	4.875%	1,651	1,651		
1514	The Dalles	09/2015	09/2065	3.250%	456	456		
1515	Yakima Chandler/Kenniwick	09/1956	09/2022	7.210%	1,068	0		
1516	Yakima Chandler/Kenniwick	09/1956	09/2022	7.210%	481	0		
1517	Yakima Chandler/Kenniwick	09/1959	09/2022	7.210%	1	0		
1518	Yakima Chandler/Kenniwick	09/1960	09/2022	7.210%	1	0		
1519	Yakima Chandler/Kenniwick	09/1961	09/2022	7.210%	1	0		
1520	Yakima Chandler/Kenniwick	09/1984	09/2022	10.750%	35	0		
1521	Yakima Chandler/Kenniwick	09/1984	09/2022	10.750%	10	0		
1522	Yakima Chandler/Kenniwick	09/1985	09/2022	12.375%	357	0		
1523	Yakima Chandler/Kenniwick	09/1986	09/2022	7.210%	439	0		
1524	Yakima Chandler/Kenniwick	09/1986	09/2022	11.375%	7	0		
1525	Yakima Chandler/Kenniwick	09/1987	09/2022	8.875%	126	0		
1526	Yakima Chandler/Kenniwick	09/1989	09/2022	9.250%	18	0		
1527	Yakima Chandler/Kenniwick	09/1990	09/2022	8.875%	40	0		
1528	Yakima Chandler/Kenniwick	09/1991	09/2022	8.750%	109	0		
1529	Yakima Chandler/Kenniwick	09/2005	09/2055	5.125%	833	833		
1530	Yakima Chandler/Kenniwick	09/2009	09/2059	4.375%	15	15		
1531	Yakima Roza	09/1958	09/2008	7.020%	1,194	0		
1532	Yakima Roza	09/1958	09/2008	7.020%	383	0		
1533	Yakima Roza	09/1984	09/2008	10.750%	5	0		
1534	Yakima Roza	09/1984	09/2008	10.750%	17	0		
1535	Yakima Roza	09/1985	09/2008	7.020%	69	0		
1536	Yakima Roza	09/1985	09/2008	12.375%	5	0		
1537	Yakima Roza	09/1986	09/2008	7.020%	6	0		
1538	Yakima Roza	09/1987	09/2008	7.020%	2	0		
1539	Yakima Roza	09/1987	09/2008	8.875%	9	0		
1540	Yakima Roza	09/2001	09/2051	5.875%	15	14		
1541	Bureau Direct	05/1995	05/2015	7.500%	35,000	0		
1542	Bureau Direct	05/1997	05/2000	6.500%	50,000	0		
1543	Bureau Direct	04/1998	05/2008	6.000%	25,000	0		
1544	Bureau Direct	09/1999	09/2004	6.400%	20,000	0		
1545	Bureau Direct	04/2000	04/2003	6.850%	40,000	0		
1546	Bureau Direct	09/2000	09/2005	6.700%	20,000	0		
1547	Bureau Direct	06/2001	06/2004	4.750%	50,000	0		
1548	Bureau Direct	03/2002	03/2005	4.600%	30,000	0		
1549	Bureau Direct	09/2002	09/2006	3.050%	20,000	0		
1550	Bureau Direct	12/2002	12/2006	3.050%	40,000	0		
1551	Bureau Direct	04/2003	04/2006	2.400%	40,000	0		
1552	Bureau Direct	04/2003	04/2006	2.400%	25,000	0		
1553	Bureau Direct	07/2003	07/2006	2.300%	30,000	0		
1554	Bureau Direct	09/2003	09/2006	2.500%	25,000	0		
1555	Bureau Direct	01/2004	01/2007	2.500%	25,000	0		
1556	Bureau Direct	04/2004	04/2007	2.950%	35,000	0		
1557	Bureau Direct	07/2004	07/2007	3.450%	25,000	0		
1558	Bureau Direct	09/2004	09/2007	3.100%	30,000	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1559	Bureau Direct	11/2004	11/2007	3.500%	20,000	0		
1560	Bureau Direct	01/2005	01/2008	3.600%	20,000	0		
1561	Bureau Direct	06/2005	06/2008	3.950%	30,000	0		
1562	Bureau Direct	09/2005	09/2008	4.250%	25,000	0		
1563	Bureau Direct	03/2006	03/2009	5.050%	25,000	0		
1564	Bureau Direct	07/2006	07/2009	5.350%	45,000	0		
1565	Bureau Direct	09/2006	09/2009	4.950%	15,000	0		
1566	Bureau Direct	01/2007	01/2010	5.100%	35,000	0		
1567	Bureau Direct	03/2007	03/2010	4.800%	30,000	0		
1568	Bureau Direct	06/2007	06/2010	5.350%	30,000	0		
1569	Bureau Direct	01/2008	01/2011	2.850%	35,000	0		
1570	Bureau Direct	01/2008	01/2011	2.850%	20,000	0		
1571	Bureau Direct	05/2008	05/2011	3.358%	35,000	0		
1572	Bureau Direct	05/2008	05/2011	3.358%	25,000	0		
1573	Bureau Direct	06/2008	06/2012	3.974%	30,000	0		
1574	Bureau Direct	07/2008	07/2012	3.913%	35,000	0		
1575	Bureau Direct	09/2008	09/2012	3.444%	35,000	0		
1576	Bureau Direct	01/2009	01/2021	3.999%	25,000	25,000		
1577	Bureau Direct	04/2009	04/2023	4.391%	25,000	25,000	04/2032	4.052%
1578	Bureau Direct	06/2009	06/2039	5.192%	25,000	25,000		
1579	Bureau Direct	09/2009	09/2019	3.699%	25,000	25,000	09/2030	4.136%
1580	Bureau Direct	10/2009	10/2018	3.719%	24,000	24,000		
1581	Bureau Direct	10/2009	10/2019	3.842%	20,000	20,000		
1582	Bureau Direct	11/2009	11/2019	3.637%	7,000	7,000		
1583	Bureau Direct	12/2009	12/2019	4.194%	13,000	13,000		
1584	Bureau Direct	01/2010	01/2019	3.714%	10,000	10,000	01/2030	4.136%
1585	Bureau Direct	02/2010	02/2019	0.165%	10,000	0		
1586	Bureau Direct	03/2010	03/2020	4.083%	30,000	30,000		
1587	Bureau Direct	04/2010	04/2020	3.973%	18,000	18,000		
1588	Bureau Direct	05/2010	05/2020	3.574%	15,000	15,000		
1589	Bureau Direct	06/2010	06/2020	3.243%	10,000	10,000	06/2031	4.136%
1590	Bureau Direct	06/2010	06/2020	3.243%	30,000	30,000	06/2031	4.136%
1591	Bureau Direct	07/2010	07/2020	3.118%	17,000	17,000		
1592	Bureau Direct	08/2010	08/2020	0.165%	5,000	0		
1593	Bureau Direct	09/2010	09/2021	2.883%	22,000	22,000		
1594	Bureau Direct	10/2010	10/2034	4.211%	20,000	20,000		
1595	Bureau Direct	01/2011	09/2011	0.244%	20,000	0		
1596	Bureau Direct	01/2011	09/2011	0.244%	35,000	0		
1597	Bureau Direct	01/2011	01/2039	5.040%	35,000	35,000		
1598	Bureau Direct	02/2011	02/2040	4.995%	50,000	50,000		
1599	Bureau Direct	05/2011	09/2011	0.076%	35,000	0		
1600	Bureau Direct	05/2011	09/2011	0.076%	25,000	0		
1601	Bureau Direct	06/2011	06/2036	4.629%	30,000	30,000		
1602	Bureau Direct	06/2011	06/2038	4.700%	30,000	30,000		
1603	Bureau Direct	08/2011	08/2037	4.208%	30,000	30,000		
1604	Bureau Direct	09/2011	07/2041	3.825%	30,000	0		
1605	Bureau Direct	12/2011	12/2038	3.880%	35,000	0		
1606	Bureau Direct	01/2012	01/2038	3.893%	15,000	0		
1607	Bureau Direct	02/2012	02/2034	0.515%	55,000	55,000		
1608	Bureau Direct	06/2012	06/2041	3.666%	50,000	0		
1609	Bureau Direct	06/2012	09/2012	0.119%	30,000	0		
1610	Bureau Direct	08/2012	07/2042	3.834%	44,000	0		
1611	Bureau Direct	09/2012	09/2013	0.174%	35,000	0		
1612	Bureau Direct	09/2012	09/2042	3.668%	25,000	0		
1613	Bureau Direct	01/2013	01/2043	6.194%	70,000	0		
1614	Bureau Direct	02/2013	02/2043	5.993%	18,000	0		
1615	Bureau Direct	03/2013	03/2043	5.958%	15,000	0		
1616	Bureau Direct	04/2013	04/2043	5.633%	15,000	0		
1617	Bureau Direct	05/2013	05/2043	6.192%	18,000	0		
1618	Bureau Direct	06/2013	01/2039	0.505%	35,000	35,000		
1619	Bureau Direct	06/2013	06/2043	6.938%	21,000	0		
1620	Bureau Direct	07/2013	07/2034	7.164%	25,000	0		
1621	Bureau Direct	08/2013	08/2034	7.413%	15,000	0		
1622	Bureau Direct	11/2013	09/2014	0.140%	77,000	0		
1623	Bureau Direct	11/2013	09/2021	2.812%	50,000	50,000		
1624	Bureau Direct	11/2013	09/2022	3.125%	19,000	19,000		
1625	Bureau Direct	11/2013	09/2020	2.473%	51,000	51,000	09/2031	4.136%
1626	Bureau Direct	01/2014	12/2018	1.943%	43,000	43,000		
1627	Bureau Direct	01/2014	12/2018	1.943%	38,000	38,000		
1628	Bureau Direct	01/2014	12/2018	1.943%	21,000	21,000	12/2029	4.136%
1629	Bureau Direct	01/2014	12/2018	1.943%	26,000	26,000	12/2029	4.136%
1630	Bureau Direct	01/2014	12/2018	1.943%	14,000	14,000	12/2029	4.136%
1631	Bureau Direct	09/2014	05/2032	0.577%	16,000	16,000		
1632	Bureau Direct	09/2014	05/2032	0.577%	10,000	10,000		
1633	Bureau Direct	09/2014	06/2033	0.490%	11,000	11,000		
1634	Bureau Direct	09/2014	06/2033	0.490%	12,000	12,000		
1635	Bureau Direct	09/2014	07/2033	0.505%	15,000	15,000		
1636	Bureau Direct	09/2015	09/2033	3.134%	10,000	10,000		
1637	Bureau Direct	04/2016	04/2031	2.661%	17,000	17,000		
1638	Bureau Direct	07/2016	07/2030	2.145%	12,000	12,000		
1639	Bureau Direct	07/2016	07/2030	2.145%	25,000	25,000		
1640	Conservation	09/1983	09/2003	12.200%	140,000	0		

TABLE 11A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1641	Conservation	09/1984	09/2004	13.050%	150,000	0		
1642	Conservation	09/1985	09/1990	10.150%	50,000	0		
1643	Conservation	03/1986	03/1991	7.800%	50,000	0		
1644	Conservation	03/1986	03/1996	8.150%	50,000	0		
1645	Conservation	04/1987	04/2007	9.300%	75,000	0		
1646	Conservation	06/1987	06/1992	8.350%	50,000	0		
1647	Conservation	04/1988	04/2008	9.900%	90,000	0		
1648	Conservation	07/1989	07/2009	8.550%	40,000	0		
1649	Conservation	09/1989	09/1995	8.600%	66,000	0		
1650	Conservation	09/1989	09/2002	8.650%	66,000	0		
1651	Conservation	07/1992	07/1997	5.800%	80,200	0		
1652	Conservation	07/1992	07/2007	7.140%	100,000	0		
1653	Conservation	10/1992	10/2012	8.050%	50,000	0		
1654	Conservation	02/1993	02/2013	7.400%	50,000	0		
1655	Conservation	08/1993	08/2013	6.750%	40,000	0		
1656	Conservation	01/1994	01/2014	6.750%	50,000	0		
1657	Conservation	05/1994	05/1998	7.100%	50,000	0		
1658	Conservation	05/1995	05/2015	7.500%	85,000	0		
1659	Conservation	01/1996	01/2011	6.700%	30,000	0		
1660	Conservation	11/1996	11/2016	7.200%	40,000	0		
1661	Conservation	05/1998	05/2009	6.000%	37,700	0		
1662	Conservation	09/1998	09/2008	5.300%	104,300	0		
1663	Conservation	09/1998	09/2013	5.600%	52,800	0		
1664	Conservation	07/2000	07/2003	6.950%	32,000	0		
1665	Conservation	06/2002	06/2005	3.750%	40,000	0		
1666	Conservation	01/2004	01/2008	2.950%	30,000	0		
1667	Conservation	03/2006	03/2009	5.050%	20,000	0		
1668	Conservation	06/2007	06/2010	5.350%	20,000	0		
1669	Conservation	09/2008	09/2013	3.701%	10,000	0		
1670	Conservation	09/2009	09/2014	2.746%	15,000	0		
1671	Conservation	01/2010	01/2015	2.609%	15,000	0		
1672	Conservation	04/2010	04/2015	2.677%	20,000	0		
1673	Conservation	08/2010	08/2015	1.619%	15,000	0		
1674	Conservation	09/2010	09/2015	1.534%	10,000	0		
1675	Conservation	01/2011	01/2023	4.046%	40,000	40,000		
1676	Conservation	04/2011	04/2023	3.932%	35,000	35,000		
1677	Conservation	08/2011	08/2023	3.206%	40,000	40,000		
1678	Conservation	10/2011	08/2012	0.204%	55,000	0		
1679	Conservation	12/2011	12/2037	0.189%	55,000	0		
1680	Conservation	05/2012	09/2015	0.676%	30,000	0		
1681	Conservation	06/2012	09/2015	0.671%	15,000	0		
1682	Conservation	08/2012	08/2024	2.788%	15,000	0		
1683	Conservation	11/2012	11/2016	0.630%	20,000	20,000		
1684	Conservation	01/2013	01/2018	1.107%	9,000	9,000		
1685	Conservation	03/2013	03/2025	4.992%	10,000	0		
1686	Conservation	04/2013	04/2025	4.553%	12,000	0		
1687	Conservation	08/2013	08/2025	6.973%	5,000	0		
1688	Conservation	10/2013	10/2025	3.568%	34,000	34,000		
1689	Conservation	11/2013	09/2023	3.375%	27,000	27,000		
1690	Conservation	12/2013	12/2021	3.142%	6,000	6,000		
1691	Conservation	12/2013	12/2023	0.490%	55,000	55,000		
1692	Conservation	01/2014	01/2026	3.621%	5,000	5,000		
1693	Conservation	04/2014	06/2025	0.490%	30,000	30,000		
1694	Conservation	05/2014	04/2024	0.483%	15,000	15,000		
1695	Conservation	05/2014	04/2025	0.483%	3,000	3,000		
1696	Conservation	06/2014	10/2024	0.483%	5,000	5,000		
1697	Conservation	07/2014	07/2025	0.505%	12,000	12,000		
1698	Conservation	08/2014	09/2025	0.519%	4,000	4,000		
1699	Conservation	10/2014	12/2024	0.490%	10,000	10,000		
1700	Conservation	11/2014	03/2027	0.519%	6,000	6,000		
1701	Conservation	12/2014	12/2023	2.403%	7,000	7,000		
1702	Conservation	01/2015	09/2015	0.204%	15,000	0		
1703	Conservation	01/2015	01/2024	1.908%	7,000	7,000		
1704	Conservation	02/2015	02/2024	2.251%	8,000	8,000		
1705	Conservation	03/2015	03/2025	2.295%	5,000	5,000		
1706	Conservation	04/2015	04/2024	2.269%	5,000	5,000		
1707	Conservation	05/2015	05/2021	1.898%	5,000	5,000		
1708	Conservation	07/2015	07/2021	2.067%	14,000	14,000		
1709	Conservation	08/2015	08/2022	2.233%	6,000	6,000		
1710	Conservation	09/2015	09/2022	2.062%	4,000	4,000		
1711	Conservation	10/2015	10/2027	0.483%	25,000	25,000		
1712	Construction (AS)	10/1992	10/2032	8.350%	38	0		
1713	Construction (AS)	07/1995	07/2025	7.700%	67	0		
1714	Construction (AS)	01/1996	01/2003	5.900%	5,622	0		
1715	Construction (AS)	01/1997	01/2004	6.800%	7,400	0		
1716	Construction (AS)	08/1998	08/2008	5.750%	3,181	0		
1717	Construction (AS)	02/1999	02/2014	5.900%	950	0		
1718	Construction (AS)	07/2000	07/2004	7.000%	10,948	0		
1719	Construction (AS)	01/2001	01/2010	6.050%	68	0		
1720	Construction (AS)	03/2002	03/2005	4.600%	1,990	0		
1721	Construction (AS)	10/2002	10/2005	3.000%	45,062	0		
1722	Construction (AS)	01/2004	01/2007	2.500%	13,357	0		

TABLE 11A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2018 Cost Evaluation period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1723	Construction (AS)	11/2004	11/2008	3.750%	7,990	0		
1724	Construction (AS)	09/2006	09/2010	4.950%	9,681	0		
1725	Construction (AS)	01/2008	01/2012	3.200%	10,000	0		
1726	Construction (AS)	09/2008	09/2012	3.444%	10,000	0		
1727	Construction (AS)	09/2009	09/2014	2.746%	14,000	0		
1728	Construction (AS)	02/2010	02/2015	0.165%	7,500	0		
1729	Construction (AS)	08/2010	08/2015	1.619%	5,000	0		
1730	Construction (AS)	06/2011	06/2016	1.957%	7,000	0		
1731	Construction (AS)	08/2011	08/2016	1.423%	3,500	3,500		
1732	Construction (AS)	01/2012	09/2012	0.146%	10,000	0		
1733	Construction (AS)	06/2012	09/2015	0.671%	7,700	0		
1734	Construction (AS)	11/2012	11/2018	1.109%	5,250	5,250		
1735	Construction (AS)	04/2013	04/2017	0.622%	2,450	2,450		
1736	Construction (AS)	06/2013	06/2017	1.271%	3,000	3,000		
1737	Construction (AS)	08/2013	08/2017	1.494%	2,000	2,000		
1738	Construction (AS)	10/2013	10/2019	2.039%	4,200	4,200		
1739	Construction (AS)	10/2013	10/2019	2.039%	5,000	5,000		
1740	Construction (AS)	01/2014	01/2020	2.183%	1,750	1,750		
1741	Construction (AS)	01/2014	01/2020	2.183%	2,000	2,000		
1742	Construction (AS)	02/2014	09/2014	0.117%	950	0		
1743	Construction (AS)	04/2014	03/2020	0.519%	1,400	1,400		
1744	Construction (AS)	04/2014	03/2020	0.519%	2,000	2,000		
1745	Construction (AS)	05/2014	04/2020	0.483%	700	700		
1746	Construction (AS)	07/2014	07/2020	0.505%	1,050	1,050		
1747	Construction (AS)	11/2014	11/2020	1.809%	2,100	2,100		
1748	Construction (AS)	12/2014	12/2020	1.922%	1,050	1,050		
1749	Construction (AS)	02/2015	02/2021	1.761%	1,750	1,750		
1750	Construction (AS)	05/2015	05/2021	1.898%	2,100	2,100		
1751	Construction (AS)	09/2015	09/2017	0.744%	7,700	7,700		
1752	Construction (AS)	10/2015	10/2021	1.942%	2,800	2,800		
1753	Construction (AS)	02/2016	02/2022	0.515%	3,000	3,000		
1754	Construction (AS)	06/2016	09/2016	0.436%	7,000	7,000		
1755	Corps	09/2015	09/2033	3.134%	4,000	4,000		
1756	Corps	02/2016	02/2045	0.515%	3,000	3,000		
1757	Corps	04/2016	04/2031	2.661%	53,000	53,000		
1758	Corps	05/2016	05/2030	2.599%	15,000	15,000		
1759	Fish and Wildlife	05/1989	05/1999	8.950%	25,000	0		
1760	Fish and Wildlife	05/1991	05/1996	7.950%	50,000	0		
1761	Fish and Wildlife	02/1993	02/2008	6.950%	20,000	0		
1762	Fish and Wildlife	09/1994	09/1999	7.650%	20,000	0		
1763	Fish and Wildlife	08/1995	08/2010	7.200%	35,000	0		
1764	Fish and Wildlife	01/1998	01/2013	6.100%	60,000	0		
1765	Fish and Wildlife	09/1999	09/2003	6.300%	20,000	0		
1766	Fish and Wildlife	01/2001	01/2005	5.650%	25,000	0		
1767	Fish and Wildlife	09/2003	09/2007	3.100%	20,000	0		
1768	Fish and Wildlife	09/2005	09/2008	4.250%	20,000	0		
1769	Fish and Wildlife	09/2006	09/2010	4.950%	20,000	0		
1770	Fish and Wildlife	06/2007	06/2010	5.350%	30,000	0		
1771	Fish and Wildlife	09/2007	09/2011	4.700%	20,000	0		
1772	Fish and Wildlife	09/2008	09/2012	3.444%	20,000	0		
1773	Fish and Wildlife	06/2009	06/2024	4.556%	20,000	20,000		
1774	Fish and Wildlife	12/2009	12/2018	4.069%	26,000	26,000		
1775	Fish and Wildlife	08/2010	08/2019	2.646%	20,000	20,000		
1776	Fish and Wildlife	01/2011	01/2026	4.440%	50,000	50,000		
1777	Fish and Wildlife	02/2011	02/2026	4.398%	15,000	15,000		
1778	Fish and Wildlife	06/2011	06/2026	4.205%	15,000	15,000		
1779	Fish and Wildlife	01/2012	01/2038	3.893%	30,000	0		
1780	Fish and Wildlife	05/2012	05/2029	0.140%	5,000	0		
1781	Fish and Wildlife	06/2012	06/2041	3.666%	11,000	0		
1782	Fish and Wildlife	08/2012	08/2027	3.090%	11,000	0		
1783	Fish and Wildlife	11/2012	11/2027	5.046%	25,000	0		
1784	Fish and Wildlife	01/2013	09/2013	0.149%	60,000	0		
1785	Fish and Wildlife	03/2013	03/2028	5.445%	10,000	0		
1786	Fish and Wildlife	04/2013	04/2028	5.042%	6,000	0		
1787	Fish and Wildlife	06/2013	06/2028	6.607%	8,000	0		
1788	Fish and Wildlife	08/2013	08/2028	7.249%	5,000	0		
1789	Fish and Wildlife	10/2013	12/2026	3.717%	28,000	28,000		
1790	Fish and Wildlife	10/2013	05/2027	3.762%	11,000	11,000		
1791	Fish and Wildlife	10/2013	10/2028	3.880%	22,000	22,000		
1792	Fish and Wildlife	11/2013	09/2022	3.125%	31,000	31,000		
1793	Fish and Wildlife	11/2013	09/2023	3.375%	23,000	23,000	09/2028	3.831%
1794	Fish and Wildlife	11/2013	05/2027	0.577%	5,000	5,000		
1795	Fish and Wildlife	01/2014	01/2029	3.896%	7,000	7,000		
1796	Fish and Wildlife	04/2014	02/2029	0.515%	7,000	7,000		
1797	Fish and Wildlife	05/2014	04/2027	0.483%	11,000	11,000		
1798	Fish and Wildlife	08/2014	07/2029	0.505%	5,000	5,000		
1799	Fish and Wildlife	10/2014	01/2029	0.505%	15,000	15,000		
1800	Fish and Wildlife	11/2014	03/2030	0.519%	8,000	8,000		
1801	Fish and Wildlife	01/2015	01/2024	1.908%	5,000	5,000		
1802	Fish and Wildlife	03/2015	03/2028	2.511%	3,000	3,000		
1803	Fish and Wildlife	10/2015	02/2031	0.515%	4,000	4,000		
1804	Fish and Wildlife	10/2015	03/2031	0.519%	5,000	5,000		

TABLE 11A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2018 Cost Evaluation period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1805	Fish and Wildlife	02/2016	02/2031	0.515%	4,000	4,000		
1806	Technology (G)	01/2015	01/2021	1.469%	35,000	35,000		
1807	Technology (G)	10/2015	07/2022	0.505%	6,000	6,000		
1808	Totals:				12,171,772	5,270,310		

TABLE 11B:
PROJECTED INVESTMENTS
October 1, 2015 - September 30, 2018 Cost Evaluation period
($000s) (FY 2018)

	A	B	C	D	E	F	G
	Project	In Service Date	Due Date	Interest Rate	Current Principal	Roll Maturity Date	Rollover Rate
1	Bureau Direct	07/2017	07/2032	3.810%	16,000		
2	Bureau Direct	08/2017	08/2034	3.890%	16,000		
3	Bureau Direct	09/2017	09/2036	3.970%	16,000		
4	Bureau Direct	07/2018	07/2038	4.320%	28,000		
5	Bureau Direct	08/2018	08/2040	4.380%	28,000		
6	Bureau Direct	09/2018	09/2042	4.440%	28,000		
7	Columbia River Fish Mitigation	09/2016	09/2066	3.000%	45,326		
8	Columbia River Fish Mitigation	09/2017	09/2067	3.680%	151,772		
9	Columbia River Fish Mitigation	09/2018	09/2068	3.930%	81,269		
10	Construction (AS)	09/2017	09/2023	3.120%	5,250		
11	Construction (AS)	09/2018	09/2024	3.700%	5,950		
12	Corps	07/2017	07/2033	3.850%	55,000		
13	Corps	08/2017	08/2035	3.930%	55,000		
14	Corps	09/2017	09/2037	4.010%	55,000		
15	Corps	07/2018	07/2039	4.350%	53,000		
16	Corps	08/2018	08/2041	4.410%	53,000		
17	Corps	09/2018	09/2043	4.470%	52,000		
18	Fish and Wildlife	09/2017	09/2032	3.810%	45,000		
19	Fish and Wildlife	09/2018	09/2033	4.160%	51,000		
20	Technology (G)	09/2017	09/2022	3.000%	5,000		
21	Technology (G)	09/2018	09/2023	3.630%	5,000		

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
1	2016	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
2	2016	Boise	Historical	4,429	6.653%	295	-	-	295
3	2016	Bonneville 2nd Powerhouse	Historical	366,796	7.150%	26,226	-	-	26,226
4	2016	Bonneville Dam	Historical	151,828	5.482%	8,323	-	-	8,323
5	2016	Chief Joseph	Historical	238,256	6.818%	16,243	-	-	16,243
6	2016	Columbia Basin	Historical	98,275	5.674%	5,577	-	-	5,577
7	2016	Columbia Basin 3rd Powerhouse	Historical	361,897	7.150%	25,876	-	-	25,876
8	2016	Columbia River Fish Mitigation	Historical	1,392,630	4.400%	61,273	-	-	61,273
9	2016	Cougar	Historical	16,708	4.580%	765	-	-	765
10	2016	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
11	2016	Dworshak	Historical	14,040	6.340%	890	-	-	890
12	2016	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
13	2016	Hills Creek	Historical	2,867	5.972%	171	-	-	171
14	2016	Hungry Horse Dam	Historical	13,312	6.264%	834	-	-	834
15	2016	Ice Harbor	Historical	18,673	4.875%	910	-	-	910
16	2016	John Day	Historical	30,473	5.425%	1,653	-	-	1,653
17	2016	Libby	Historical	23,079	6.658%	1,537	-	-	1,537
18	2016	Little Goose	Historical	63,856	6.907%	4,410	-	-	4,410
19	2016	Lookout Dam	Historical	13,543	5.467%	740	-	-	740
20	2016	Lost Creek	Historical	12,618	7.133%	900	-	-	900
21	2016	Lower Granite	Historical	59,370	6.457%	3,833	-	-	3,833
22	2016	Lower Monument	Historical	54,534	6.715%	3,662	-	-	3,662
23	2016	Lower Snake Fish and Wildlife	Historical	232,739	7.104%	16,534	-	-	16,534
24	2016	McNary	Historical	15,126	4.931%	746	-	-	746
25	2016	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
26	2016	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
27	2016	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
28	2016	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
29	2016	Yakima Roza	Historical	14	5.878%	1	-	-	1
30	2016	Bureau Direct	Historical	937,000	3.028%	28,376	-	-	28,376
31	2016	Bureau Direct	New	54,000	-	-	-	319	319
32	2016	Conservation	Historical	417,000	2.156%	8,992	-	-	8,992
33	2016	Conservation	New	25,000	0.242%	60	-	50	110
34	2016	Construction (AS)	Historical	49,000	1.373%	673	-	(4)	669
35	2016	Construction (AS)	New	12,800	0.332%	43	-	24	66
36	2016	Corps	Historical	4,000	3.134%	125	-	-	125
37	2016	Corps	New	71,000	0.011%	8	-	717	725
38	2016	Fish and Wildlife	Historical	327,000	3.291%	10,763	-	-	10,763
39	2016	Fish and Wildlife	New	13,000	0.39382	51	-	3	55
40	2016	Technology (G)	Historical	35,000	1.469%	514	-	-	514
41	2016	Technology (G)	New	6,000	0.379%	23	-	5	28
42	2016	Float	Historical	-	-	(1,990)	-	-	(1,990)
43	**FY 2016**	**Subtotal:**		**5,270,310**		**236,762**	**-**	**1,114**	**237,876**
44	2017	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
45	2017	Boise	Historical	4,429	6.653%	295	-	-	295
46	2017	Bonneville 2nd Powerhouse	Historical	16,759	7.150%	1,198	-	-	1,198
47	2017	Bonneville Dam	Historical	135,618	5.283%	7,164	-	-	7,164
48	2017	Chief Joseph	Historical	37,578	5.043%	1,895	-	-	1,895
49	2017	Columbia Basin	Historical	97,915	5.669%	5,551	-	-	5,551
50	2017	Columbia Basin 3rd Powerhouse	Historical	43,638	7.150%	3,120	-	-	3,120
51	2017	Columbia River Fish Mitigation	Historical	1,437,956	4.356%	62,632	-	-	62,632
52	2017	Cougar	Historical	16,708	4.580%	765	-	-	765
53	2017	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
54	2017	Dworshak	Historical	13,613	6.314%	860	-	-	860
55	2017	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
56	2017	Hills Creek	Historical	2,867	5.972%	171	-	-	171
57	2017	Hungry Horse Dam	Historical	11,581	6.131%	710	-	-	710
58	2017	Ice Harbor	Historical	18,595	4.865%	905	-	-	905
59	2017	John Day	Historical	30,473	5.425%	1,653	-	-	1,653
60	2017	Libby	Historical	22,777	6.652%	1,515	-	-	1,515
61	2017	Little Goose	Historical	14,231	6.058%	862	-	-	862
62	2017	Lookout Dam	Historical	13,543	5.467%	740	-	-	740
63	2017	Lost Creek	Historical	272	6.370%	17	-	-	17
64	2017	Lower Granite	Historical	17,002	4.730%	804	-	-	804
65	2017	Lower Monument	Historical	13,609	5.407%	736	-	-	736
66	2017	Lower Snake Fish and Wildlife	Historical	223,267	7.102%	15,857	-	-	15,857
67	2017	McNary	Historical	15,096	4.927%	744	-	-	744
68	2017	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
69	2017	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
70	2017	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
71	2017	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
72	2017	Yakima Roza	Historical	14	5.878%	1	-	-	1
73	2017	Bureau Direct	Historical	991,000	2.989%	29,622	-	-	29,622
74	2017	Bureau Direct	New	32,000	-	-	-	153	153
75	2017	Conservation	Historical	442,000	2.047%	9,050	-	(42)	9,008
76	2017	Construction (AS)	Historical	51,300	1.351%	693	-	(18)	675

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
77	2017	Corps	Historical	75,000	2.588%	1,941	-	-	1,941
78	2017	Corps	New	110,000	-	-	-	532	532
79	2017	Fish and Wildlife	Historical	340,000	3.185%	10,830	-	-	10,830
80	2017	Technology (G)	Historical	41,000	1.328%	544	-	-	544
81	2017	Float	Historical	-	0	(1,327)	-	-	(1,327)
82	**FY 2017**	**Subtotal:**		**4,404,288**		**167,274**	**-**	**625**	**167,898**
83	2018	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
84	2018	Boise	Historical	4,429	6.653%	295	-	-	295
85	2018	Bonneville 2nd Powerhouse	Historical	9,867	7.150%	705	-	-	705
86	2018	Bonneville Dam	Historical	135,618	5.283%	7,164	-	-	7,164
87	2018	Chief Joseph	Historical	37,578	5.043%	1,895	-	-	1,895
88	2018	Columbia Basin	Historical	97,915	5.669%	5,551	-	-	5,551
89	2018	Columbia Basin 3rd Powerhouse	Historical	12,631	7.150%	903	-	-	903
90	2018	Columbia River Fish Mitigation	Historical	1,589,727	4.291%	68,217	-	-	68,217
91	2018	Cougar	Historical	16,708	4.580%	765	-	-	765
92	2018	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
93	2018	Dworshak	Historical	13,613	6.314%	860	-	-	860
94	2018	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
95	2018	Hills Creek	Historical	2,867	5.972%	171	-	-	171
96	2018	Hungry Horse Dam	Historical	11,581	6.131%	710	-	-	710
97	2018	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
98	2018	John Day	Historical	30,278	5.413%	1,639	-	-	1,639
99	2018	Libby	Historical	7,996	5.731%	458	-	-	458
100	2018	Little Goose	Historical	13,031	5.958%	776	-	-	776
101	2018	Lookout Dam	Historical	13,543	5.467%	740	-	-	740
102	2018	Lost Creek	Historical	272	6.370%	17	-	-	17
103	2018	Lower Granite	Historical	17,002	4.730%	804	-	-	804
104	2018	Lower Monument	Historical	13,345	5.373%	717	-	-	717
105	2018	Lower Snake Fish and Wildlife	Historical	55,653	6.958%	3,872	-	-	3,872
106	2018	McNary	Historical	15,096	4.927%	744	-	-	744
107	2018	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
108	2018	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
109	2018	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
110	2018	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
111	2018	Yakima Roza	Historical	14	5.878%	1	-	-	1
112	2018	Bureau Direct	Historical	1,039,000	3.031%	31,487	-	-	31,487
113	2018	Bureau Direct	New	56,000	-	-	-	303	303
114	2018	Conservation	Historical	422,000	2.118%	8,937	-	(16)	8,921
115	2018	Construction (AS)	Historical	41,400	1.730%	716	-	-	716
116	2018	Corps	Historical	240,000	3.508%	8,419	-	-	8,419
117	2018	Corps	New	106,000	-	-	-	578	578
118	2018	Fish and Wildlife	Historical	385,000	3.258%	12,544	-	-	12,544
119	2018	Technology (G)	Historical	46,000	1.50967	694	-	-	694
120	2018	Float	Historical	-	-	(1,228)	-	-	(1,228)
121	**FY 2018**	**Subtotal:**		**4,586,836**		**167,180**	**-**	**865**	**168,045**
122	2019	Albeni Falls	Historical	1,528	6.329%	97	-	-	97
123	2019	Boise	Historical	4,429	6.653%	295	-	-	295
124	2019	Bonneville 2nd Powerhouse	Historical	376	7.150%	27	-	-	27
125	2019	Bonneville Dam	Historical	134,525	5.267%	7,086	-	-	7,086
126	2019	Chief Joseph	Historical	31,356	4.624%	1,450	-	-	1,450
127	2019	Columbia Basin	Historical	95,175	5.626%	5,355	-	-	5,355
128	2019	Columbia River Fish Mitigation	Historical	1,631,715	4.204%	68,603	-	-	68,603
129	2019	Cougar	Historical	16,708	4.580%	765	-	-	765
130	2019	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
131	2019	Dworshak	Historical	12,451	6.236%	776	-	-	776
132	2019	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
133	2019	Hills Creek	Historical	2,867	5.972%	171	-	-	171
134	2019	Hungry Horse Dam	Historical	5,391	4.962%	267	-	-	267
135	2019	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
136	2019	John Day	Historical	21,980	4.758%	1,046	-	-	1,046
137	2019	Libby	Historical	7,996	5.731%	458	-	-	458
138	2019	Little Goose	Historical	13,031	5.958%	776	-	-	776
139	2019	Lookout Dam	Historical	13,471	5.458%	735	-	-	735
140	2019	Lost Creek	Historical	178	5.960%	11	-	-	11
141	2019	Lower Granite	Historical	17,002	4.730%	804	-	-	804
142	2019	Lower Monument	Historical	11,459	5.080%	582	-	-	582
143	2019	Lower Snake Fish and Wildlife	Historical	19,683	6.607%	1,301	-	-	1,301
144	2019	McNary	Historical	15,080	4.924%	743	-	-	743
145	2019	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
146	2019	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
147	2019	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
148	2019	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
149	2019	Yakima Roza	Historical	14	5.878%	1	-	-	1
150	2019	Bureau Direct	Historical	1,123,000	3.083%	34,620	-	(422)	34,197
151	2019	Conservation	Historical	413,000	2.152%	8,887	-	-	8,887
152	2019	Construction (AS)	Historical	47,350	1.916%	907	-	(20)	888

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
153	2019	Corps	Historical	398,000	3.864%	15,380	-	-	15,380
154	2019	Fish and Wildlife	Historical	436,000	3.242%	14,137	-	(309)	13,828
155	2019	Replacements	New	219,724	2.315%	5,087	-	-	5,087
156	2019	Technology (G)	Historical	51,000	1.718%	876	-	-	876
157	2019	Float	Historical	-	-	(2,179)	-	-	(2,179)
158	**FY 2019**	**Subtotal:**		**4,894,032**		**177,457**	**-**	**(751)**	**176,706**
159	2020	Albeni Falls	Historical	580	4.988%	29	-	-	29
160	2020	Boise	Historical	1,065	5.082%	54	-	-	54
161	2020	Bonneville Dam	Historical	113,710	5.085%	5,782	-	-	5,782
162	2020	Chief Joseph	Historical	29,608	4.475%	1,325	-	-	1,325
163	2020	Columbia Basin	Historical	90,988	5.556%	5,056	-	-	5,056
164	2020	Columbia River Fish Mitigation	Historical	1,582,278	4.143%	65,550	-	-	65,550
165	2020	Cougar	Historical	16,682	4.576%	763	-	-	763
166	2020	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
167	2020	Dworshak	Historical	4,810	4.785%	230	-	-	230
168	2020	Green Peter/Foster	Historical	719	4.379%	31	-	-	31
169	2020	Hills Creek	Historical	209	3.888%	8	-	-	8
170	2020	Hungry Horse Dam	Historical	5,263	4.908%	258	-	-	258
171	2020	Ice Harbor	Historical	17,609	4.769%	840	-	-	840
172	2020	John Day	Historical	19,039	4.537%	864	-	-	864
173	2020	Libby	Historical	7,336	5.603%	411	-	-	411
174	2020	Little Goose	Historical	8,129	5.239%	426	-	-	426
175	2020	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
176	2020	Lost Creek	Historical	154	5.774%	9	-	-	9
177	2020	Lower Granite	Historical	15,691	4.528%	710	-	-	710
178	2020	Lower Monument	Historical	11,449	5.079%	581	-	-	581
179	2020	Lower Snake Fish and Wildlife	Historical	3,896	4.811%	187	-	-	187
180	2020	McNary	Historical	14,461	4.829%	698	-	-	698
181	2020	Minidoka/Palisades	Historical	19,286	3.256%	628	-	-	628
182	2020	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
183	2020	The Dalles	Historical	41,703	5.076%	2,117	-	-	2,117
184	2020	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
185	2020	Yakima Roza	Historical	14	5.878%	1	-	-	1
186	2020	Bureau Direct	Historical	1,018,000	3.221%	32,789	-	(1,015)	31,774
187	2020	Conservation	Historical	413,000	2.152%	8,887	-	-	8,887
188	2020	Construction (AS)	Historical	42,100	1.745%	735	-	(94)	641
189	2020	Corps	Historical	398,000	3.864%	15,380	-	-	15,380
190	2020	Fish and Wildlife	Historical	390,000	3.354%	13,080	-	-	13,080
191	2020	Replacements	Historical	219,724	4.630%	10,173	-	-	10,173
192	2020	Replacements	New	219,724	2.315%	5,087	-	-	5,087
193	2020	Technology (G)	Historical	51,000	1.718%	876	-	-	876
194	2020	Float	Historical	-	-	(1,986)	-	-	(1,986)
195	**FY 2020**	**Subtotal:**		**4,778,694**		**172,799**	**-**	**(1,109)**	**171,690**
196	2021	Albeni Falls	Historical	580	4.988%	29	-	-	29
197	2021	Boise	Historical	1,065	5.0824	54	-	-	54
198	2021	Bonneville Dam	Historical	84,910	4.914%	4,172	-	-	4,172
199	2021	Chief Joseph	Historical	29,261	4.459%	1,305	-	-	1,305
200	2021	Columbia Basin	Historical	21,763	4.542%	988	-	-	988
201	2021	Columbia River Fish Mitigation	Historical	1,552,466	4.116%	63,906	-	-	63,906
202	2021	Cougar	Historical	16,682	4.576%	763	-	-	763
203	2021	Detroit Lake/Big Cliff	Historical	1,799	4.453%	80	-	-	80
204	2021	Dworshak	Historical	3,982	4.656%	185	-	-	185
205	2021	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
206	2021	Hills Creek	Historical	200	3.800%	8	-	-	8
207	2021	Hungry Horse Dam	Historical	4,710	4.795%	226	-	-	226
208	2021	Ice Harbor	Historical	6,994	3.777%	264	-	-	264
209	2021	John Day	Historical	12,081	4.029%	487	-	-	487
210	2021	Libby	Historical	1,774	4.751%	84	-	-	84
211	2021	Little Goose	Historical	3,426	4.379%	150	-	-	150
212	2021	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
213	2021	Lost Creek	Historical	7	3.748%		-	-	
214	2021	Lower Granite	Historical	11,535	4.121%	475	-	-	475
215	2021	Lower Monument	Historical	4,695	4.300%	202	-	-	202
216	2021	Lower Snake Fish and Wildlife	Historical	2,444	4.364%	107	-	-	107
217	2021	McNary	Historical	7,276	4.218%	307	-	-	307
218	2021	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
219	2021	RRP - Green Springs	Historical	3	3.244%		-	-	
220	2021	The Dalles	Historical	40,296	5.062%	2,040	-	-	2,040
221	2021	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
222	2021	Bureau Direct	Historical	898,000	3.304%	29,668	-	(489)	29,178
223	2021	Conservation	Historical	413,000	2.152%	8,887	-	(80)	8,808
224	2021	Construction (AS)	Historical	24,000	2.242%	538	-	(34)	504
225	2021	Corps	Historical	398,000	3.864%	15,380	-	-	15,380
226	2021	Fish and Wildlife	Historical	390,000	3.354%	13,080	-	-	13,080
227	2021	Replacements	Historical	439,447	4.630%	20,346	-	-	20,346
228	2021	Replacements	New	219,724	2.315%	5,087	-	-	5,087

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
229	2021	Technology (G)	Historical	51,000	1.213%	619	-	(85)	534
230	2021	Float	Historical	-	-	(2,051)	-	-	(2,051)
231	**FY 2021**	**Subtotal:**		**4,670,104**		**168,497**	**-**	**(688)**	**167,810**
232	2022	Albeni Falls	Historical	580	4.988%	29	-	-	29
233	2022	Boise	Historical	1,065	5.082%	54	-	-	54
234	2022	Bonneville Dam	Historical	53,588	4.666%	2,500	-	-	2,500
235	2022	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
236	2022	Columbia Basin	Historical	21,763	4.54216	988	-	-	988
237	2022	Columbia River Fish Mitigation	Historical	1,424,178	4.015%	57,181	-	-	57,181
238	2022	Cougar	Historical	13,060	4.354%	569	-	-	569
239	2022	Detroit Lake/Big Cliff	Historical	1,576	4.358%	69	-	-	69
240	2022	Dworshak	Historical	3,220	4.545%	146	-	-	146
241	2022	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
242	2022	Hills Creek	Historical	200	3.800%	8	-	-	8
243	2022	Hungry Horse Dam	Historical	4,710	4.795%	226	-	-	226
244	2022	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
245	2022	John Day	Historical	12,081	4.029%	487	-	-	487
246	2022	Libby	Historical	1,774	4.751%	84	-	-	84
247	2022	Little Goose	Historical	3,280	4.346%	143	-	-	143
248	2022	Lookout Dam	Historical	8,238	5.051%	416	-	-	416
249	2022	Lost Creek	Historical	7	3.748%		-	-	
250	2022	Lower Granite	Historical	11,494	4.117%	473	-	-	473
251	2022	Lower Monument	Historical	4,673	4.296%	201	-	-	201
252	2022	Lower Snake Fish and Wildlife	Historical	2,346	4.332%	102	-	-	102
253	2022	McNary	Historical	7,180	4.206%	302	-	-	302
254	2022	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
255	2022	RRP - Green Springs	Historical	3	3.244%		-	-	
256	2022	The Dalles	Historical	30,742	5.042%	1,550	-	-	1,550
257	2022	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
258	2022	Bureau Direct	Historical	776,000	3.160%	24,522	-	(473)	24,050
259	2022	Conservation	Historical	394,000	2.134%	8,409	-	(58)	8,350
260	2022	Construction (AS)	Historical	17,000	2.464%	419	-	(24)	395
261	2022	Corps	Historical	398,000	3.864%	15,380	-	-	15,380
262	2022	Fish and Wildlife	Historical	390,000	3.354%	13,080	-	-	13,080
263	2022	Replacements	Historical	659,171	4.630%	30,520	-	-	30,520
264	2022	Replacements	New	219,724	2.315%	5,087	-	-	5,087
265	2022	Technology (G)	Historical	16,000	2.261%	362	-	(5)	357
266	2022	Float	Historical	-	-	(2,014)	-	-	(2,014)
267	**FY 2022**	**Subtotal:**		**4,530,644**		**163,453**	**-**	**(560)**	**162,893**
268	2023	Albeni Falls	Historical	99	4.322%	4	-	-	4
269	2023	Boise	Historical	86	4.707%	4	-	-	4
270	2023	Bonneville Dam	Historical	32,739	4.378%	1,433	-	-	1,433
271	2023	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
272	2023	Columbia Basin	Historical	9,871	3.852%	380	-	-	380
273	2023	Columbia River Fish Mitigation	Historical	1,318,614	3.931%	51,838	-	-	51,838
274	2023	Cougar	Historical	4,810	3.035%	146	-	-	146
275	2023	Detroit Lake/Big Cliff	Historical	545	2.90753	16	-	-	16
276	2023	Dworshak	Historical	2,508	4.381%	110	-	-	110
277	2023	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
278	2023	Hills Creek	Historical	154	3.404%	5	-	-	5
279	2023	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
280	2023	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
281	2023	John Day	Historical	9,021	3.660%	330	-	-	330
282	2023	Libby	Historical	1,774	4.751%	84	-	-	84
283	2023	Little Goose	Historical	3,280	4.346%	143	-	-	143
284	2023	Lookout Dam	Historical	311	3.396%	11	-	-	11
285	2023	Lost Creek	Historical	7	3.748%		-	-	
286	2023	Lower Granite	Historical	11,101	4.081%	453	-	-	453
287	2023	Lower Monument	Historical	4,146	4.191%	174	-	-	174
288	2023	Lower Snake Fish and Wildlife	Historical	2,342	4.331%	101	-	-	101
289	2023	McNary	Historical	6,630	4.130%	274	-	-	274
290	2023	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
291	2023	RRP - Green Springs	Historical	3	3.244%		-	-	
292	2023	The Dalles	Historical	4,137	4.512%	187	-	-	187
293	2023	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
294	2023	Bureau Direct	Historical	678,990	3.005%	20,404	-	(764)	19,640
295	2023	Conservation	Historical	378,000	1.928%	7,289	-	(947)	6,342
296	2023	Construction (AS)	Historical	11,200	3.428%	384	-	-	384
297	2023	Corps	Historical	398,000	3.864%	15,380	-	-	15,380
298	2023	Fish and Wildlife	Historical	359,000	3.247%	11,656	-	(228)	11,428
299	2023	Replacements	Historical	878,894	4.630%	40,693	-	-	40,693
300	2023	Replacements	New	219,724	2.315%	5,087	-	-	5,087
301	2023	Technology (G)	Historical	5,000	3.630%	182	-	-	182
302	2023	Float	Historical	-	-	(2,017)	-	-	(2,017)
303	**FY 2023**	**Subtotal:**		**4,397,442**		**156,971**	**-**	**(1,939)**	**155,033**
304	2024	Albeni Falls	Historical	99	4.322%	4	-	-	4

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
305	2024	Boise	Historical	86	4.707%	4	-	-	4
306	2024	Bonneville Dam	Historical	32,739	4.378%	1,433	-	-	1,433
307	2024	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
308	2024	Columbia Basin	Historical	9,871	3.852%	380	-	-	380
309	2024	Columbia River Fish Mitigation	Historical	1,196,001	3.873%	46,320	-	-	46,320
310	2024	Cougar	Historical	4,810	3.035%	146	-	-	146
311	2024	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
312	2024	Dworshak	Historical	2,508	4.381%	110	-	-	110
313	2024	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
314	2024	Hills Creek	Historical	154	3.40422	5	-	-	5
315	2024	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
316	2024	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
317	2024	John Day	Historical	8,420	3.600%	303	-	-	303
318	2024	Libby	Historical	1,774	4.751%	84	-	-	84
319	2024	Little Goose	Historical	3,280	4.346%	143	-	-	143
320	2024	Lookout Dam	Historical	311	3.396%	11	-	-	11
321	2024	Lost Creek	Historical	7	3.748%		-	-	
322	2024	Lower Granite	Historical	11,101	4.081%	453	-	-	453
323	2024	Lower Monument	Historical	3,861	4.168%	161	-	-	161
324	2024	Lower Snake Fish and Wildlife	Historical	1,963	4.298%	84	-	-	84
325	2024	McNary	Historical	2,550	3.537%	90	-	-	90
326	2024	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
327	2024	RRP - Green Springs	Historical	3	3.244%		-	-	
328	2024	The Dalles	Historical	2,107	4.524%	95	-	-	95
329	2024	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
330	2024	Bureau Direct	Historical	612,000	3.063%	18,747	-	-	18,747
331	2024	Conservation	Historical	236,000	1.075%	2,538	-	(224)	2,314
332	2024	Construction (AS)	Historical	5,950	3.700%	220	-	-	220
333	2024	Corps	Historical	398,000	3.813%	15,177	-	-	15,177
334	2024	Fish and Wildlife	Historical	339,000	3.321%	11,257	-	(16)	11,242
335	2024	Replacements	Historical	1,098,618	4.630%	50,866	-	-	50,866
336	2024	Replacements	New	219,724	2.315%	5,087	-	-	5,087
337	2024	Float	Historical	-	-	(1,988)	-	-	(1,988)
338	**FY 2024**	**Subtotal:**		**4,247,939**		**153,968**	**-**	**(240)**	**153,729**
339	2025	Albeni Falls	Historical	99	4.322%	4	-	-	4
340	2025	Boise	Historical	71	4.749%	3	-	-	3
341	2025	Bonneville Dam	Historical	30,111	4.367%	1,315	-	-	1,315
342	2025	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
343	2025	Columbia Basin	Historical	7,884	3.688%	291	-	-	291
344	2025	Columbia River Fish Mitigation	Historical	952,219	3.712%	35,350	-	-	35,350
345	2025	Cougar	Historical	4,701	3.001%	141	-	-	141
346	2025	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
347	2025	Dworshak	Historical	2,435	4.377%	107	-	-	107
348	2025	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
349	2025	Hills Creek	Historical	154	3.404%	5	-	-	5
350	2025	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
351	2025	Ice Harbor	Historical	6,944	3.76774	262	-	-	262
352	2025	John Day	Historical	8,420	3.600%	303	-	-	303
353	2025	Libby	Historical	1,774	4.751%	84	-	-	84
354	2025	Little Goose	Historical	3,280	4.346%	143	-	-	143
355	2025	Lookout Dam	Historical	311	3.396%	11	-	-	11
356	2025	Lost Creek	Historical	7	3.748%		-	-	
357	2025	Lower Granite	Historical	11,101	4.081%	453	-	-	453
358	2025	Lower Monument	Historical	3,861	4.168%	161	-	-	161
359	2025	Lower Snake Fish and Wildlife	Historical	1,963	4.298%	84	-	-	84
360	2025	McNary	Historical	2,550	3.537%	90	-	-	90
361	2025	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
362	2025	RRP - Green Springs	Historical	3	3.244%		-	-	
363	2025	The Dalles	Historical	2,107	4.524%	95	-	-	95
364	2025	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
365	2025	Bureau Direct	Historical	612,000	2.861%	17,512	-	(104)	17,408
366	2025	Conservation	Historical	139,000	1.355%	1,883	-	(75)	1,808
367	2025	Corps	Historical	388,901	3.303%	12,846	-	(198)	12,648
368	2025	Fish and Wildlife	Historical	334,000	2.925%	9,770	-	(422)	9,348
369	2025	Replacements	Historical	1,318,341	4.630%	61,039	-	-	61,039
370	2025	Replacements	New	219,724	2.315%	5,087	-	-	5,087
371	2025	Float	Historical	-	-	(1,924)	-	-	(1,924)
372	**FY 2025**	**Subtotal:**		**4,102,019**		**147,091**	**-**	**(798)**	**146,293**
373	2026	Albeni Falls	Historical	99	4.322%	4	-	-	4
374	2026	Boise	Historical	68	4.763%	3	-	-	3
375	2026	Bonneville Dam	Historical	30,111	4.367%	1,315	-	-	1,315
376	2026	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
377	2026	Columbia Basin	Historical	7,884	3.688%	291	-	-	291
378	2026	Columbia River Fish Mitigation	Historical	891,616	3.667%	32,699	-	-	32,699
379	2026	Cougar	Historical	4,701	3.001%	141	-	-	141
380	2026	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
381	2026	Dworshak	Historical	10	4.877%		-	-	
382	2026	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
383	2026	Hills Creek	Historical	154	3.404%	5	-	-	5
384	2026	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
385	2026	Ice Harbor	Historical	4,329	3.401%	147	-	-	147
386	2026	John Day	Historical	8,420	3.600%	303	-	-	303
387	2026	Libby	Historical	1,774	4.751%	84	-	-	84
388	2026	Little Goose	Historical	109	3.49328	4	-	-	4
389	2026	Lookout Dam	Historical	311	3.396%	11	-	-	11
390	2026	Lost Creek	Historical	7	3.748%		-	-	
391	2026	Lower Granite	Historical	5,432	3.775%	205	-	-	205
392	2026	Lower Monument	Historical	1,529	3.852%	59	-	-	59
393	2026	Lower Snake Fish and Wildlife	Historical	1,963	4.298%	84	-	-	84
394	2026	McNary	Historical	2,550	3.537%	90	-	-	90
395	2026	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
396	2026	RRP - Green Springs	Historical	3	3.244%		-	-	
397	2026	The Dalles	Historical	2,107	4.524%	95	-	-	95
398	2026	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
399	2026	Bureau Direct	Historical	556,000	2.706%	15,045	-	(656)	14,389
400	2026	Conservation	Historical	70,000	1.213%	849	-	(533)	316
401	2026	Corps	Historical	293,000	3.267%	9,572	-	(380)	9,192
402	2026	Fish and Wildlife	Historical	269,000	2.756%	7,414	-	(158)	7,256
403	2026	Replacements	Historical	1,538,065	4.630%	71,212	-	-	71,212
404	2026	Replacements	New	219,724	2.315%	5,087	-	-	5,087
405	2026	Float	Historical	-	-	(1,941)	-	-	(1,941)
406	**FY 2026**	**Subtotal:**		**3,959,024**		**144,755**	**-**	**(1,727)**	**143,028**
407	2027	Albeni Falls	Historical	57	4.375%	2	-	-	2
408	2027	Boise	Historical	68	4.763%	3	-	-	3
409	2027	Bonneville Dam	Historical	25,942	4.373%	1,134	-	-	1,134
410	2027	Chief Joseph	Historical	3,542	4.856%	172	-	-	172
411	2027	Columbia Basin	Historical	7,008	3.618%	254	-	-	254
412	2027	Columbia River Fish Mitigation	Historical	792,184	3.588%	28,420	-	-	28,420
413	2027	Cougar	Historical	4,521	2.947%	133	-	-	133
414	2027	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
415	2027	Dworshak	Historical	10	4.877%		-	-	
416	2027	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
417	2027	Hills Creek	Historical	154	3.404%	5	-	-	5
418	2027	Hungry Horse Dam	Historical	686	3.908%	27	-	-	27
419	2027	Ice Harbor	Historical	4,123	3.358%	138	-	-	138
420	2027	John Day	Historical	8,064	3.571%	288	-	-	288
421	2027	Libby	Historical	1,734	4.763%	83	-	-	83
422	2027	Little Goose	Historical	79	3.203%	3	-	-	3
423	2027	Lookout Dam	Historical	311	3.396%	11	-	-	11
424	2027	Lost Creek	Historical	7	3.74829		-	-	
425	2027	Lower Granite	Historical	4,276	3.647%	156	-	-	156
426	2027	Lower Monument	Historical	1,529	3.852%	59	-	-	59
427	2027	Lower Snake Fish and Wildlife	Historical	418	4.016%	17	-	-	17
428	2027	McNary	Historical	2,550	3.537%	90	-	-	90
429	2027	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
430	2027	RRP - Green Springs	Historical	3	3.244%		-	-	
431	2027	The Dalles	Historical	2,107	4.524%	95	-	-	95
432	2027	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
433	2027	Bureau Direct	Historical	478,000	1.838%	8,785	-	(1,533)	7,252
434	2027	Conservation	Historical	31,000	0.440%	136	-	-	136
435	2027	Corps	Historical	240,000	2.758%	6,619	-	(118)	6,501
436	2027	Fish and Wildlife	Historical	209,858	2.479%	5,202	-	(431)	4,771
437	2027	Replacements	Historical	1,757,788	4.630%	81,386	-	-	81,386
438	2027	Replacements	New	219,724	2.315%	5,087	-	-	5,087
439	2027	Float	Historical	-	-	(1,953)	-	-	(1,953)
440	**FY 2027**	**Subtotal:**		**3,816,065**		**137,013**	**-**	**(2,082)**	**134,931**
441	2028	Albeni Falls	Historical	57	4.375%	2	-	-	2
442	2028	Boise	Historical	68	4.763%	3	-	-	3
443	2028	Bonneville Dam	Historical	25,942	4.373%	1,134	-	-	1,134
444	2028	Chief Joseph	Historical	3,542	4.856%	172	-	-	172
445	2028	Columbia Basin	Historical	7,008	3.618%	254	-	-	254
446	2028	Columbia River Fish Mitigation	Historical	792,184	3.588%	28,420	-	-	28,420
447	2028	Cougar	Historical	4,521	2.947%	133	-	-	133
448	2028	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
449	2028	Dworshak	Historical	10	4.877%		-	-	
450	2028	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
451	2028	Hills Creek	Historical	154	3.404%	5	-	-	5
452	2028	Hungry Horse Dam	Historical	686	3.908%	27	-	-	27
453	2028	Ice Harbor	Historical	4,123	3.358%	138	-	-	138
454	2028	John Day	Historical	8,064	3.571%	288	-	-	288
455	2028	Libby	Historical	1,734	4.763%	83	-	-	83
456	2028	Little Goose	Historical	79	3.203%	3	-	-	3

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
457	2028	Lookout Dam	Historical	311	3.396%	11	-	-	11
458	2028	Lost Creek	Historical	7	3.74829		-	-	
459	2028	Lower Granite	Historical	4,276	3.647%	156	-	-	156
460	2028	Lower Monument	Historical	1,529	3.852%	59	-	-	59
461	2028	Lower Snake Fish and Wildlife	Historical	418	4.016%	17	-	-	17
462	2028	McNary	Historical	2,550	3.537%	90	-	-	90
463	2028	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
464	2028	RRP - Green Springs	Historical	3	3.244%		-	-	
465	2028	The Dalles	Historical	2,107	4.524%	95	-	-	95
466	2028	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
467	2028	Bureau Direct	Historical	250,000	1.189%	2,971	-	(153)	2,818
468	2028	Conservation	Historical	25,000	0.242%	60	-	(50)	10
469	2028	Corps	Historical	149,475	2.261%	3,380	-	(414)	2,966
470	2028	Fish and Wildlife	Historical	148,000	2.502%	3,703	-	(45)	3,658
471	2028	Replacements	Historical	1,977,512	4.630%	91,559	-	-	91,559
472	2028	Replacements	New	219,724	2.315%	5,087	-	-	5,087
473	2028	Float	Historical	-	-	(1,905)	-	-	(1,905)
474	**FY 2028**	**Subtotal:**		**3,649,406**		**136,608**	**-**	**(662)**	**135,946**
475	2029	Albeni Falls	Historical	57	4.375%	2	-	-	2
476	2029	Boise	Historical	68	4.763%	3	-	-	3
477	2029	Bonneville Dam	Historical	25,941	4.373%	1,134	-	-	1,134
478	2029	Chief Joseph	Historical	3,542	4.856%	172	-	-	172
479	2029	Columbia Basin	Historical	6,989	3.618%	253	-	-	253
480	2029	Columbia River Fish Mitigation	Historical	600,844	3.489%	20,961	-	-	20,961
481	2029	Cougar	Historical	4,509	2.945%	133	-	-	133
482	2029	Detroit Lake/Big Cliff	Historical	528	2.875%	15	-	-	15
483	2029	Dworshak	Historical	10	4.877%		-	-	
484	2029	Green Peter/Foster	Historical	134	3.599%	5	-	-	5
485	2029	Hills Creek	Historical	154	3.404%	5	-	-	5
486	2029	Hungry Horse Dam	Historical	674	3.908%	26	-	-	26
487	2029	Ice Harbor	Historical	4,123	3.358%	138	-	-	138
488	2029	John Day	Historical	8,064	3.571%	288	-	-	288
489	2029	Libby	Historical	1,734	4.763%	83	-	-	83
490	2029	Little Goose	Historical	79	3.203%	3	-	-	3
491	2029	Lookout Dam	Historical	311	3.396%	11	-	-	11
492	2029	Lost Creek	Historical	7	3.74829		-	-	
493	2029	Lower Granite	Historical	1,631	3.276%	53	-	-	53
494	2029	Lower Monument	Historical	99	3.514%	3	-	-	3
495	2029	Lower Snake Fish and Wildlife	Historical	196	4.176%	8	-	-	8
496	2029	McNary	Historical	1,791	3.394%	61	-	-	61
497	2029	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
498	2029	RRP - Green Springs	Historical	3	3.244%		-	-	
499	2029	The Dalles	Historical	2,107	4.524%	95	-	-	95
500	2029	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
501	2029	Bureau Direct	Historical	217,757	1.010%	2,200	-	-	2,200
502	2029	Corps	Historical	74,903	2.508%	1,878	-	-	1,878
503	2029	Fish and Wildlife	Historical	106,307	1.230%	1,308	-	(374)	934
504	2029	Replacements	Historical	2,197,235	4.630%	101,732	-	-	101,732
505	2029	Replacements	New	219,724	2.315%	5,087	-	-	5,087
506	2029	Float	Historical	-	-	(3,035)	-	-	(3,035)
507	**FY 2029**	**Subtotal:**		**3,498,780**		**133,251**	**-**	**(374)**	**132,877**
508	2030	Albeni Falls	Historical	57	4.375%	2	-	-	2
509	2030	Boise	Historical	64	4.875%	3	-	-	3
510	2030	Bonneville Dam	Historical	14,877	4.839%	720	-	-	720
511	2030	Chief Joseph	Historical	3,510	4.869%	171	-	-	171
512	2030	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
513	2030	Columbia River Fish Mitigation	Historical	94,551	3.648%	3,449	-	-	3,449
514	2030	Cougar	Historical	4,088	2.875%	118	-	-	118
515	2030	Dworshak	Historical	10	4.877%		-	-	
516	2030	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
517	2030	Ice Harbor	Historical	14	4.874%	1	-	-	1
518	2030	John Day	Historical	1,548	4.375%	68	-	-	68
519	2030	Libby	Historical	1,567	4.875%	76	-	-	76
520	2030	Little Goose	Historical	13	4.877%	1	-	-	1
521	2030	Lower Granite	Historical	24	4.875%	1	-	-	1
522	2030	Lower Monument	Historical	9	4.871%		-	-	
523	2030	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
524	2030	McNary	Historical	215	4.87495	10	-	-	10
525	2030	The Dalles	Historical	1,651	4.875%	80	-	-	80
526	2030	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
527	2030	Bureau Direct	Historical	189,685	0.906%	1,719	-	(463)	1,257
528	2030	Corps	Historical	69,698	2.594%	1,808	-	(717)	1,091
529	2030	Fish and Wildlife	Historical	20,635	0.263%	54	-	(3)	51
530	2030	Replacements	Historical	2,416,959	4.393%	106,189	-	-	106,189
531	2030	Replacements	New	219,724	2.315%	5,087	-	-	5,087
532	2030	Float	Historical	-	-	(2,662)	-	-	(2,662)
533	**FY 2030**	**Subtotal:**		**3,041,297**		**117,007**	**-**	**(1,183)**	**115,823**

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
534	2031	Albeni Falls	Historical	57	4.375%	2	-	-	2
535	2031	Boise	Historical	64	4.875%	3	-	-	3
536	2031	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
537	2031	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
538	2031	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
539	2031	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
540	2031	Dworshak	Historical	10	4.877%		-	-	
541	2031	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
542	2031	Ice Harbor	Historical	14	4.874%	1	-	-	1
543	2031	John Day	Historical	1,548	4.375%	68	-	-	68
544	2031	Libby	Historical	1,567	4.875%	76	-	-	76
545	2031	Little Goose	Historical	13	4.877%	1	-	-	1
546	2031	Lower Granite	Historical	24	4.875%	1	-	-	1
547	2031	Lower Monument	Historical	9	4.871%		-	-	
548	2031	Lower Snake Fish and Wildlife	Historical	74	4.8745	4	-	-	4
549	2031	McNary	Historical	215	4.875%	10	-	-	10
550	2031	The Dalles	Historical	1,651	4.875%	80	-	-	80
551	2031	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
552	2031	Corps	Historical		-	-	-	-	-
553	2031	Fish and Wildlife	Historical		-	-	-	-	-
554	2031	Replacements	Historical	2,389,758	3.999%	95,573	-	-	95,573
555	2031	Replacements	New	219,724	2.315%	5,087	-	-	5,087
556	2031	Float	Historical	-	-	(2,896)	-	-	(2,896)
557	**FY 2031**	**Subtotal:**		**2,671,716**		**100,783**	**-**	**-**	**100,783**
558	2032	Albeni Falls	Historical	57	4.375%	2	-	-	2
559	2032	Boise	Historical	64	4.875%	3	-	-	3
560	2032	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
561	2032	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
562	2032	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
563	2032	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
564	2032	Dworshak	Historical	10	4.877%		-	-	
565	2032	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
566	2032	Ice Harbor	Historical	14	4.874%	1	-	-	1
567	2032	John Day	Historical	1,548	4.375%	68	-	-	68
568	2032	Libby	Historical	1,567	4.875%	76	-	-	76
569	2032	Little Goose	Historical	13	4.877%	1	-	-	1
570	2032	Lower Granite	Historical	24	4.87461	1	-	-	1
571	2032	Lower Monument	Historical	9	4.871%		-	-	
572	2032	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
573	2032	McNary	Historical	215	4.875%	10	-	-	10
574	2032	The Dalles	Historical	1,651	4.875%	80	-	-	80
575	2032	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
576	2032	Replacements	Historical	1,958,409	3.686%	72,188	-	-	72,188
577	2032	Replacements	New	219,724	2.315%	5,087	-	-	5,087
578	2032	Float	Historical	-	-	(3,403)	-	-	(3,403)
579	**FY 2032**	**Subtotal:**		**2,240,367**		**76,891**	**-**	**-**	**76,891**
580	2033	Albeni Falls	Historical	57	4.375%	2	-	-	2
581	2033	Boise	Historical	64	4.875%	3	-	-	3
582	2033	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
583	2033	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
584	2033	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
585	2033	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
586	2033	Dworshak	Historical	10	4.877%		-	-	
587	2033	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
588	2033	Ice Harbor	Historical	14	4.874%	1	-	-	1
589	2033	John Day	Historical	1,548	4.375%	68	-	-	68
590	2033	Libby	Historical	1,567	4.875%	76	-	-	76
591	2033	Little Goose	Historical	13	4.877%	1	-	-	1
592	2033	Lower Granite	Historical	24	4.87461	1	-	-	1
593	2033	Lower Monument	Historical	9	4.871%		-	-	
594	2033	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
595	2033	McNary	Historical	215	4.875%	10	-	-	10
596	2033	The Dalles	Historical	1,651	4.875%	80	-	-	80
597	2033	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
598	2033	Replacements	Historical	1,379,603	3.196%	44,097	-	-	44,097
599	2033	Replacements	New	219,724	2.315%	5,087	-	-	5,087
600	2033	Float	Historical	-	-	(3,589)	-	-	(3,589)
601	**FY 2033**	**Subtotal:**		**1,661,561**		**48,614**	**-**	**-**	**48,614**

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
602	2034	Albeni Falls	Historical	57	4.375%	2	-	-	2
603	2034	Boise	Historical	64	4.875%	3	-	-	3
604	2034	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
605	2034	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
606	2034	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
607	2034	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
608	2034	Dworshak	Historical	10	4.877%		-	-	
609	2034	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
610	2034	Ice Harbor	Historical	14	4.874%	1	-	-	1
611	2034	John Day	Historical	1,548	4.375%	68	-	-	68
612	2034	Libby	Historical	1,567	4.875%	76	-	-	76
613	2034	Little Goose	Historical	13	4.877%	1	-	-	1
614	2034	Lower Granite	Historical	24	4.87461	1	-	-	1
615	2034	Lower Monument	Historical	9	4.871%		-	-	
616	2034	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
617	2034	McNary	Historical	215	4.875%	10	-	-	10
618	2034	The Dalles	Historical	1,651	4.875%	80	-	-	80
619	2034	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
620	2034	Replacements	Historical	744,959	2.315%	17,246	-	-	17,246
621	2034	Replacements	New	219,724	2.315%	5,087	-	-	5,087
622	2034	Float	Historical	-	-	(3,629)	-	-	(3,629)
623	**FY 2034**	**Subtotal:**		**1,026,917**		**21,723**	**-**	**-**	**21,723**
624	2035	Albeni Falls	Historical	57	4.375%	2	-	-	2
625	2035	Boise	Historical	64	4.875%	3	-	-	3
626	2035	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
627	2035	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
628	2035	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
629	2035	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
630	2035	Dworshak	Historical	10	4.877%		-	-	
631	2035	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
632	2035	Ice Harbor	Historical	14	4.874%	1	-	-	1
633	2035	John Day	Historical	1,548	4.375%	68	-	-	68
634	2035	Libby	Historical	1,567	4.875%	76	-	-	76
635	2035	Little Goose	Historical	13	4.877%	1	-	-	1
636	2035	Lower Granite	Historical	24	4.87461	1	-	-	1
637	2035	Lower Monument	Historical	9	4.871%		-	-	
638	2035	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
639	2035	McNary	Historical	215	4.875%	10	-	-	10
640	2035	The Dalles	Historical	1,651	4.875%	80	-	-	80
641	2035	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
642	2035	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
643	2035	Replacements	New	219,724	2.315%	5,087	-	-	5,087
644	2035	Float	Historical	-	-	(3,678)	-	-	(3,678)
645	**FY 2035**	**Subtotal:**		**501,681**		**9,514**	**-**	**-**	**9,514**
646	2036	Albeni Falls	Historical	57	4.375%	2	-	-	2
647	2036	Boise	Historical	64	4.875%	3	-	-	3
648	2036	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
649	2036	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
650	2036	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
651	2036	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
652	2036	Dworshak	Historical	10	4.877%		-	-	
653	2036	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
654	2036	Ice Harbor	Historical	14	4.874%	1	-	-	1
655	2036	John Day	Historical	1,548	4.375%	68	-	-	68
656	2036	Libby	Historical	1,567	4.875%	76	-	-	76
657	2036	Little Goose	Historical	13	4.877%	1	-	-	1
658	2036	Lower Granite	Historical	24	4.87461	1	-	-	1
659	2036	Lower Monument	Historical	9	4.871%		-	-	
660	2036	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
661	2036	McNary	Historical	215	4.875%	10	-	-	10
662	2036	The Dalles	Historical	1,651	4.875%	80	-	-	80
663	2036	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
664	2036	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
665	2036	Replacements	New	219,724	2.315%	5,087	-	-	5,087
666	2036	Float	Historical	-	-	(3,678)	-	-	(3,678)
667	**FY 2036**	**Subtotal:**		**501,681**		**9,514**	**-**	**-**	**9,514**
668	2037	Albeni Falls	Historical	57	4.375%	2	-	-	2
669	2037	Boise	Historical	64	4.875%	3	-	-	3
670	2037	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
671	2037	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
672	2037	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
673	2037	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
674	2037	Dworshak	Historical	10	4.877%		-	-	
675	2037	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
676	2037	Ice Harbor	Historical	14	4.874%	1	-	-	1
677	2037	John Day	Historical	1,548	4.375%	68	-	-	68
678	2037	Libby	Historical	1,567	4.875%	76	-	-	76
679	2037	Little Goose	Historical	13	4.877%	1	-	-	1
680	2037	Lower Granite	Historical	24	4.87461	1	-	-	1
681	2037	Lower Monument	Historical	9	4.871%		-	-	
682	2037	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
683	2037	McNary	Historical	215	4.875%	10	-	-	10
684	2037	The Dalles	Historical	1,651	4.875%	80	-	-	80
685	2037	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
686	2037	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
687	2037	Replacements	New	219,724	2.315%	5,087	-	-	5,087
688	2037	Float	Historical	-	-	(3,681)	-	-	(3,681)
689	**FY 2037**	**Subtotal:**		**501,681**		**9,511**	**-**	**-**	**9,511**

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
690	2038	Albeni Falls	Historical	57	4.375%	2	-	-	2
691	2038	Boise	Historical	64	4.875%	3	-	-	3
692	2038	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
693	2038	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
694	2038	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
695	2038	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
696	2038	Dworshak	Historical	10	4.877%		-	-	
697	2038	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
698	2038	Ice Harbor	Historical	14	4.874%	1	-	-	1
699	2038	John Day	Historical	1,548	4.375%	68	-	-	68
700	2038	Libby	Historical	1,567	4.875%	76	-	-	76
701	2038	Little Goose	Historical	13	4.877%	1	-	-	1
702	2038	Lower Granite	Historical	24	4.87461	1	-	-	1
703	2038	Lower Monument	Historical	9	4.871%		-	-	
704	2038	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
705	2038	McNary	Historical	215	4.875%	10	-	-	10
706	2038	The Dalles	Historical	1,651	4.875%	80	-	-	80
707	2038	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
708	2038	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
709	2038	Replacements	New	219,724	2.315%	5,087	-	-	5,087
710	2038	Float	Historical	-	-	(3,722)	-	-	(3,722)
711	**FY 2038**	**Subtotal:**		**501,681**		**9,470**	**-**	**-**	**9,470**
712	2039	Albeni Falls	Historical	57	4.375%	2	-	-	2
713	2039	Boise	Historical	64	4.875%	3	-	-	3
714	2039	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
715	2039	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
716	2039	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
717	2039	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
718	2039	Dworshak	Historical	10	4.877%		-	-	
719	2039	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
720	2039	Ice Harbor	Historical	14	4.874%	1	-	-	1
721	2039	John Day	Historical	1,548	4.375%	68	-	-	68
722	2039	Libby	Historical	1,567	4.875%	76	-	-	76
723	2039	Little Goose	Historical	13	4.877%	1	-	-	1
724	2039	Lower Granite	Historical	24	4.87461	1	-	-	1
725	2039	Lower Monument	Historical	9	4.871%		-	-	
726	2039	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
727	2039	McNary	Historical	215	4.875%	10	-	-	10
728	2039	The Dalles	Historical	1,651	4.875%	80	-	-	80
729	2039	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
730	2039	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
731	2039	Replacements	New	219,724	2.315%	5,087	-	-	5,087
732	2039	Float	Historical	-	-	(3,854)	-	-	(3,854)
733	**FY 2039**	**Subtotal:**		**501,681**		**9,338**	**-**	**-**	**9,338**
734	2040	Albeni Falls	Historical	57	4.375%	2	-	-	2
735	2040	Boise	Historical	64	4.875%	3	-	-	3
736	2040	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
737	2040	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
738	2040	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
739	2040	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
740	2040	Dworshak	Historical	10	4.877%		-	-	
741	2040	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
742	2040	Ice Harbor	Historical	14	4.874%	1	-	-	1
743	2040	John Day	Historical	1,548	4.375%	68	-	-	68
744	2040	Libby	Historical	1,567	4.875%	76	-	-	76
745	2040	Little Goose	Historical	13	4.877%	1	-	-	1
746	2040	Lower Granite	Historical	24	4.87461	1	-	-	1
747	2040	Lower Monument	Historical	9	4.871%		-	-	
748	2040	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
749	2040	McNary	Historical	215	4.875%	10	-	-	10
750	2040	The Dalles	Historical	1,651	4.875%	80	-	-	80
751	2040	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
752	2040	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
753	2040	Replacements	New	219,724	2.315%	5,087	-	-	5,087
754	2040	Float	Historical	-	-	(3,864)	-	-	(3,864)
755	**FY 2040**	**Subtotal:**		**501,681**		**9,329**	**-**	**-**	**9,329**
756	2041	Albeni Falls	Historical	57	4.375%	2	-	-	2
757	2041	Boise	Historical	64	4.875%	3	-	-	3
758	2041	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
759	2041	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
760	2041	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
761	2041	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
762	2041	Dworshak	Historical	10	4.877%		-	-	
763	2041	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
764	2041	Ice Harbor	Historical	14	4.874%	1	-	-	1
765	2041	John Day	Historical	1,548	4.375%	68	-	-	68
766	2041	Libby	Historical	1,567	4.875%	76	-	-	76
767	2041	Little Goose	Historical	13	4.877%	1	-	-	1
768	2041	Lower Granite	Historical	24	4.87461	1	-	-	1
769	2041	Lower Monument	Historical	9	4.871%		-	-	
770	2041	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
771	2041	McNary	Historical	215	4.875%	10	-	-	10
772	2041	The Dalles	Historical	1,651	4.875%	80	-	-	80
773	2041	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
774	2041	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
775	2041	Replacements	New	219,724	2.315%	5,087	-	-	5,087
776	2041	Float	Historical	-	-	(3,892)	-	-	(3,892)
777	**FY 2041**	**Subtotal:**		**501,681**		**9,300**	**-**	**-**	**9,300**

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
778	2042	Albeni Falls	Historical	57	4.375%	2	-	-	2
779	2042	Boise	Historical	64	4.875%	3	-	-	3
780	2042	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
781	2042	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
782	2042	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
783	2042	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
784	2042	Dworshak	Historical	10	4.877%		-	-	
785	2042	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
786	2042	Ice Harbor	Historical	14	4.874%	1	-	-	1
787	2042	John Day	Historical	1,548	4.375%	68	-	-	68
788	2042	Libby	Historical	1,567	4.875%	76	-	-	76
789	2042	Little Goose	Historical	13	4.877%	1	-	-	1
790	2042	Lower Granite	Historical	24	4.87461	1	-	-	1
791	2042	Lower Monument	Historical	9	4.871%		-	-	
792	2042	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
793	2042	McNary	Historical	215	4.875%	10	-	-	10
794	2042	The Dalles	Historical	1,651	4.875%	80	-	-	80
795	2042	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
796	2042	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
797	2042	Replacements	New	219,724	2.315%	5,087	-	-	5,087
798	2042	Float	Historical	-	-	(3,892)	-	-	(3,892)
799	**FY 2042**	**Subtotal:**		**501,681**		**9,300**	**-**	**-**	**9,300**
800	2043	Albeni Falls	Historical	57	4.375%	2	-	-	2
801	2043	Boise	Historical	64	4.875%	3	-	-	3
802	2043	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
803	2043	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
804	2043	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
805	2043	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
806	2043	Dworshak	Historical	10	4.877%		-	-	
807	2043	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
808	2043	Ice Harbor	Historical	14	4.874%	1	-	-	1
809	2043	John Day	Historical	1,548	4.375%	68	-	-	68
810	2043	Libby	Historical	1,567	4.875%	76	-	-	76
811	2043	Little Goose	Historical	13	4.877%	1	-	-	1
812	2043	Lower Granite	Historical	24	4.87461	1	-	-	1
813	2043	Lower Monument	Historical	9	4.871%		-	-	
814	2043	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
815	2043	McNary	Historical	215	4.875%	10	-	-	10
816	2043	The Dalles	Historical	1,651	4.875%	80	-	-	80
817	2043	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
818	2043	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
819	2043	Replacements	New	219,724	2.315%	5,087	-	-	5,087
820	2043	Float	Historical	-	-	(3,892)	-	-	(3,892)
821	**FY 2043**	**Subtotal:**		**501,681**		**9,300**	**-**	**-**	**9,300**
822	2044	Albeni Falls	Historical	57	4.375%	2	-	-	2
823	2044	Boise	Historical	64	4.875%	3	-	-	3
824	2044	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
825	2044	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
826	2044	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
827	2044	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
828	2044	Dworshak	Historical	10	4.877%		-	-	
829	2044	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
830	2044	Ice Harbor	Historical	14	4.874%	1	-	-	1
831	2044	John Day	Historical	1,548	4.375%	68	-	-	68
832	2044	Libby	Historical	1,567	4.875%	76	-	-	76
833	2044	Little Goose	Historical	13	4.877%	1	-	-	1
834	2044	Lower Granite	Historical	24	4.87461	1	-	-	1
835	2044	Lower Monument	Historical	9	4.871%		-	-	
836	2044	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
837	2044	McNary	Historical	215	4.875%	10	-	-	10
838	2044	The Dalles	Historical	1,651	4.875%	80	-	-	80
839	2044	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
840	2044	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
841	2044	Replacements	New	219,724	2.315%	5,087	-	-	5,087
842	2044	Float	Historical	-	-	(3,411)	-	-	(3,411)
843	**FY 2044**	**Subtotal:**		**501,681**		**9,781**	**-**	**-**	**9,781**
844	2045	Albeni Falls	Historical	57	4.375%	2	-	-	2
845	2045	Boise	Historical	64	4.875%	3	-	-	3
846	2045	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
847	2045	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
848	2045	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
849	2045	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
850	2045	Dworshak	Historical	10	4.877%		-	-	
851	2045	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
852	2045	Ice Harbor	Historical	14	4.874%	1	-	-	1
853	2045	John Day	Historical	1,548	4.375%	68	-	-	68
854	2045	Libby	Historical	1,567	4.875%	76	-	-	76
855	2045	Little Goose	Historical	13	4.877%	1	-	-	1
856	2045	Lower Granite	Historical	24	4.87461	1	-	-	1
857	2045	Lower Monument	Historical	9	4.871%		-	-	
858	2045	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
859	2045	McNary	Historical	215	4.875%	10	-	-	10
860	2045	The Dalles	Historical	1,651	4.875%	80	-	-	80
861	2045	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
862	2045	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
863	2045	Replacements	New	219,724	2.315%	5,087	-	-	5,087
864	2045	Float	Historical	-	-	(1,981)	-	-	(1,981)
865	**FY 2045**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
866	2046	Albeni Falls	Historical	57	4.375%	2	-	-	2
867	2046	Boise	Historical	64	4.875%	3	-	-	3
868	2046	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
869	2046	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
870	2046	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
871	2046	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
872	2046	Dworshak	Historical	10	4.877%		-	-	
873	2046	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
874	2046	Ice Harbor	Historical	14	4.874%	1	-	-	1
875	2046	John Day	Historical	1,548	4.375%	68	-	-	68
876	2046	Libby	Historical	1,567	4.875%	76	-	-	76
877	2046	Little Goose	Historical	13	4.877%	1	-	-	1
878	2046	Lower Granite	Historical	24	4.87461	1	-	-	1
879	2046	Lower Monument	Historical	9	4.871%		-	-	
880	2046	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
881	2046	McNary	Historical	215	4.875%	10	-	-	10
882	2046	The Dalles	Historical	1,651	4.875%	80	-	-	80
883	2046	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
884	2046	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
885	2046	Replacements	New	219,724	2.315%	5,087	-	-	5,087
886	2046	Float	Historical	-	-	(1,981)	-	-	(1,981)
887	**FY 2046**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
888	2047	Albeni Falls	Historical	57	4.375%	2	-	-	2
889	2047	Boise	Historical	64	4.875%	3	-	-	3
890	2047	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
891	2047	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
892	2047	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
893	2047	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
894	2047	Dworshak	Historical	10	4.877%		-	-	
895	2047	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
896	2047	Ice Harbor	Historical	14	4.874%	1	-	-	1
897	2047	John Day	Historical	1,548	4.375%	68	-	-	68
898	2047	Libby	Historical	1,567	4.875%	76	-	-	76
899	2047	Little Goose	Historical	13	4.877%	1	-	-	1
900	2047	Lower Granite	Historical	24	4.87461	1	-	-	1
901	2047	Lower Monument	Historical	9	4.871%		-	-	
902	2047	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
903	2047	McNary	Historical	215	4.875%	10	-	-	10
904	2047	The Dalles	Historical	1,651	4.875%	80	-	-	80
905	2047	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
906	2047	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
907	2047	Replacements	New	219,724	2.315%	5,087	-	-	5,087
908	2047	Float	Historical	-	-	(1,981)	-	-	(1,981)
909	**FY 2047**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
910	2048	Albeni Falls	Historical	57	4.375%	2	-	-	2
911	2048	Boise	Historical	64	4.875%	3	-	-	3
912	2048	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
913	2048	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
914	2048	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
915	2048	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
916	2048	Dworshak	Historical	10	4.877%		-	-	
917	2048	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
918	2048	Ice Harbor	Historical	14	4.874%	1	-	-	1
919	2048	John Day	Historical	1,548	4.375%	68	-	-	68
920	2048	Libby	Historical	1,567	4.875%	76	-	-	76
921	2048	Little Goose	Historical	13	4.877%	1	-	-	1
922	2048	Lower Granite	Historical	24	4.87461	1	-	-	1
923	2048	Lower Monument	Historical	9	4.871%		-	-	
924	2048	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
925	2048	McNary	Historical	215	4.875%	10	-	-	10
926	2048	The Dalles	Historical	1,651	4.875%	80	-	-	80
927	2048	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
928	2048	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
929	2048	Replacements	New	219,724	2.315%	5,087	-	-	5,087
930	2048	Float	Historical	-	-	(1,981)	-	-	(1,981)
931	**FY 2048**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
932	2049	Albeni Falls	Historical	57	4.375%	2	-	-	2
933	2049	Boise	Historical	64	4.875%	3	-	-	3
934	2049	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
935	2049	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
936	2049	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
937	2049	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
938	2049	Dworshak	Historical	10	4.877%		-	-	
939	2049	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
940	2049	Ice Harbor	Historical	14	4.874%	1	-	-	1
941	2049	John Day	Historical	1,548	4.375%	68	-	-	68
942	2049	Libby	Historical	1,567	4.875%	76	-	-	76
943	2049	Little Goose	Historical	13	4.877%	1	-	-	1
944	2049	Lower Granite	Historical	24	4.87461	1	-	-	1
945	2049	Lower Monument	Historical	9	4.871%		-	-	
946	2049	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
947	2049	McNary	Historical	215	4.875%	10	-	-	10
948	2049	The Dalles	Historical	1,651	4.875%	80	-	-	80
949	2049	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
950	2049	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
951	2049	Replacements	New	219,724	2.315%	5,087	-	-	5,087
952	2049	Float	Historical	-	-	(1,981)	-	-	(1,981)
953	**FY 2049**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
954	2050	Albeni Falls	Historical	57	4.375%	2	-	-	2
955	2050	Boise	Historical	64	4.875%	3	-	-	3
956	2050	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
957	2050	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
958	2050	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
959	2050	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
960	2050	Dworshak	Historical	10	4.877%		-	-	
961	2050	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
962	2050	Ice Harbor	Historical	14	4.874%	1	-	-	1
963	2050	John Day	Historical	1,548	4.375%	68	-	-	68
964	2050	Libby	Historical	1,567	4.875%	76	-	-	76
965	2050	Little Goose	Historical	13	4.877%	1	-	-	1
966	2050	Lower Granite	Historical	24	4.87461	1	-	-	1
967	2050	Lower Monument	Historical	9	4.871%		-	-	
968	2050	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
969	2050	McNary	Historical	215	4.875%	10	-	-	10
970	2050	The Dalles	Historical	1,651	4.875%	80	-	-	80
971	2050	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
972	2050	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
973	2050	Replacements	New	219,724	2.315%	5,087	-	-	5,087
974	2050	Float	Historical	-	-	(1,981)	-	-	(1,981)
975	**FY 2050**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
976	2051	Albeni Falls	Historical	57	4.375%	2	-	-	2
977	2051	Boise	Historical	64	4.875%	3	-	-	3
978	2051	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
979	2051	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
980	2051	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
981	2051	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
982	2051	Dworshak	Historical	10	4.877%		-	-	
983	2051	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
984	2051	Ice Harbor	Historical	14	4.874%	1	-	-	1
985	2051	John Day	Historical	1,548	4.375%	68	-	-	68
986	2051	Libby	Historical	1,567	4.875%	76	-	-	76
987	2051	Little Goose	Historical	13	4.877%	1	-	-	1
988	2051	Lower Granite	Historical	24	4.87461	1	-	-	1
989	2051	Lower Monument	Historical	9	4.871%		-	-	
990	2051	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
991	2051	McNary	Historical	215	4.875%	10	-	-	10
992	2051	The Dalles	Historical	1,651	4.875%	80	-	-	80
993	2051	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
994	2051	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
995	2051	Replacements	New	219,724	2.315%	5,087	-	-	5,087
996	2051	Float	Historical	-	-	(1,981)	-	-	(1,981)
997	**FY 2051**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
998	2052	Albeni Falls	Historical	57	4.375%	2	-	-	2
999	2052	Boise	Historical	64	4.875%	3	-	-	3
1000	2052	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1001	2052	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1002	2052	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1003	2052	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1004	2052	Dworshak	Historical	10	4.877%		-	-	
1005	2052	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1006	2052	Ice Harbor	Historical	14	4.874%	1	-	-	1
1007	2052	John Day	Historical	1,548	4.375%	68	-	-	68
1008	2052	Libby	Historical	1,567	4.875%	76	-	-	76
1009	2052	Little Goose	Historical	13	4.877%	1	-	-	1
1010	2052	Lower Granite	Historical	24	4.87461	1	-	-	1
1011	2052	Lower Monument	Historical	9	4.871%		-	-	
1012	2052	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1013	2052	McNary	Historical	215	4.875%	10	-	-	10
1014	2052	The Dalles	Historical	1,651	4.875%	80	-	-	80
1015	2052	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1016	2052	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1017	2052	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1018	2052	Float	Historical	-	-	(1,981)	-	-	(1,981)
1019	**FY 2052**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
1020	2053	Albeni Falls	Historical	57	4.375%	2	-	-	2
1021	2053	Boise	Historical	64	4.875%	3	-	-	3
1022	2053	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1023	2053	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1024	2053	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1025	2053	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1026	2053	Dworshak	Historical	10	4.877%		-	-	
1027	2053	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1028	2053	Ice Harbor	Historical	14	4.874%	1	-	-	1
1029	2053	John Day	Historical	1,548	4.375%	68	-	-	68
1030	2053	Libby	Historical	1,567	4.875%	76	-	-	76
1031	2053	Little Goose	Historical	13	4.877%	1	-	-	1
1032	2053	Lower Granite	Historical	24	4.87461	1	-	-	1
1033	2053	Lower Monument	Historical	9	4.871%		-	-	
1034	2053	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1035	2053	McNary	Historical	215	4.875%	10	-	-	10
1036	2053	The Dalles	Historical	1,651	4.875%	80	-	-	80
1037	2053	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1038	2053	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1039	2053	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1040	2053	Float	Historical	-	-	(1,981)	-	-	(1,981)
1041	**FY 2053**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
1042	2054	Albeni Falls	Historical	57	4.375%	2	-	-	2
1043	2054	Boise	Historical	64	4.875%	3	-	-	3
1044	2054	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1045	2054	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1046	2054	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1047	2054	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1048	2054	Dworshak	Historical	10	4.877%		-	-	
1049	2054	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1050	2054	Ice Harbor	Historical	14	4.874%	1	-	-	1
1051	2054	John Day	Historical	1,548	4.375%	68	-	-	68
1052	2054	Libby	Historical	1,567	4.875%	76	-	-	76
1053	2054	Little Goose	Historical	13	4.877%	1	-	-	1
1054	2054	Lower Granite	Historical	24	4.87461	1	-	-	1
1055	2054	Lower Monument	Historical	9	4.871%		-	-	
1056	2054	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1057	2054	McNary	Historical	215	4.875%	10	-	-	10
1058	2054	The Dalles	Historical	1,651	4.875%	80	-	-	80
1059	2054	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1060	2054	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1061	2054	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1062	2054	Float	Historical	-	-	(1,981)	-	-	(1,981)
1063	**FY 2054**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
1064	2055	Albeni Falls	Historical	57	4.375%	2	-	-	2
1065	2055	Boise	Historical	64	4.875%	3	-	-	3
1066	2055	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1067	2055	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1068	2055	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1069	2055	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1070	2055	Dworshak	Historical	10	4.877%		-	-	
1071	2055	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1072	2055	Ice Harbor	Historical	14	4.874%	1	-	-	1
1073	2055	John Day	Historical	1,548	4.375%	68	-	-	68
1074	2055	Libby	Historical	1,567	4.875%	76	-	-	76
1075	2055	Little Goose	Historical	13	4.877%	1	-	-	1
1076	2055	Lower Granite	Historical	24	4.87461	1	-	-	1
1077	2055	Lower Monument	Historical	9	4.871%		-	-	
1078	2055	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1079	2055	McNary	Historical	215	4.875%	10	-	-	10
1080	2055	The Dalles	Historical	1,651	4.875%	80	-	-	80
1081	2055	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1082	2055	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1083	2055	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1084	2055	Float	Historical	-	-	(1,981)	-	-	(1,981)
1085	**FY 2055**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
1086	2056	Albeni Falls	Historical	57	4.375%	2	-	-	2
1087	2056	Boise	Historical	64	4.875%	3	-	-	3
1088	2056	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1089	2056	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1090	2056	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1091	2056	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1092	2056	Dworshak	Historical	10	4.877%		-	-	
1093	2056	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1094	2056	Ice Harbor	Historical	14	4.874%	1	-	-	1
1095	2056	John Day	Historical	1,548	4.375%	68	-	-	68
1096	2056	Libby	Historical	1,567	4.875%	76	-	-	76
1097	2056	Little Goose	Historical	13	4.877%	1	-	-	1

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
1098	2056	Lower Granite	Historical	24	4.87461	1	-	-	1
1099	2056	Lower Monument	Historical	9	4.871%		-	-	
1100	2056	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1101	2056	McNary	Historical	215	4.875%	10	-	-	10
1102	2056	The Dalles	Historical	1,651	4.875%	80	-	-	80
1103	2056	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1104	2056	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1105	2056	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1106	2056	Float	Historical	-	-	(1,981)	-	-	(1,981)
1107	**FY 2056**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
1108	2057	Albeni Falls	Historical	57	4.375%	2	-	-	2
1109	2057	Boise	Historical	64	4.875%	3	-	-	3
1110	2057	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1111	2057	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1112	2057	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1113	2057	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1114	2057	Dworshak	Historical	10	4.877%		-	-	
1115	2057	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1116	2057	Ice Harbor	Historical	14	4.874%	1	-	-	1
1117	2057	John Day	Historical	1,548	4.375%	68	-	-	68
1118	2057	Libby	Historical	1,567	4.875%	76	-	-	76
1119	2057	Little Goose	Historical	13	4.877%	1	-	-	1
1120	2057	Lower Granite	Historical	24	4.87461	1	-	-	1
1121	2057	Lower Monument	Historical	9	4.871%		-	-	
1122	2057	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1123	2057	McNary	Historical	215	4.875%	10	-	-	10
1124	2057	The Dalles	Historical	1,651	4.875%	80	-	-	80
1125	2057	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1126	2057	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1127	2057	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1128	2057	Float	Historical	-	-	(1,981)	-	-	(1,981)
1129	**FY 2057**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**
1130	2058	Albeni Falls	Historical	57	4.375%	2	-	-	2
1131	2058	Boise	Historical	64	4.875%	3	-	-	3
1132	2058	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1133	2058	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1134	2058	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1135	2058	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1136	2058	Dworshak	Historical	10	4.877%		-	-	
1137	2058	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1138	2058	Ice Harbor	Historical	14	4.874%	1	-	-	1
1139	2058	John Day	Historical	1,548	4.375%	68	-	-	68
1140	2058	Libby	Historical	1,567	4.875%	76	-	-	76
1141	2058	Little Goose	Historical	13	4.877%	1	-	-	1
1142	2058	Lower Granite	Historical	24	4.87461	1	-	-	1
1143	2058	Lower Monument	Historical	9	4.871%		-	-	
1144	2058	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1145	2058	McNary	Historical	215	4.875%	10	-	-	10
1146	2058	The Dalles	Historical	1,651	4.875%	80	-	-	80
1147	2058	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1148	2058	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1149	2058	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1150	2058	Float	Historical	-	-	(1,981)	-	-	(1,981)
1151	**FY 2058**	**Subtotal:**		**501,681**		**11,211**	**-**	**-**	**11,211**

TABLE 11C:
Interest Calculation Summary
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	**Project**	**Type**	**Current Principal**	**Rate**	**Interest**	**Premium**	**Net Interest Accrual**	**Total**
1152	2059	Albeni Falls	Historical	57	4.375%	2	-	-	2
1153	2059	Columbia Basin	Historical	1,338	4.375%	59	-	-	59
1154	2059	Hungry Horse Dam	Historical	60	4.376%	3	-	-	3
1155	2059	John Day	Historical	1,548	4.375%	68	-	-	68
1156	2059	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1157	2059	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1158	2059	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1159	2059	Float	Historical	-	-	(1,981)	-	-	(1,981)
1160	**FY 2059**	**Subtotal:**		**442,465**		**8,324**	**-**	**-**	**8,324**
1161	2060	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1162	2060	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1163	2060	Float	Historical	-	-	(1,981)	-	-	(1,981)
1164	**FY 2060**	**Subtotal:**		**439,447**		**8,192**	**-**	**-**	**8,192**
1165	2061	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1166	2061	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1167	2061	Float	Historical	-	-	(1,981)	-	-	(1,981)
1168	**FY 2061**	**Subtotal:**		**439,447**		**8,192**	**-**	**-**	**8,192**
1169	2062	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1170	2062	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1171	2062	Float	Historical	-	-	(1,981)	-	-	(1,981)
1172	**FY 2062**	**Subtotal:**		**439,447**		**8,192**	**-**	**-**	**8,192**
1173	2063	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1174	2063	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1175	2063	Float	Historical	-	-	(1,981)	-	-	(1,981)
1176	**FY 2063**	**Subtotal:**		**439,447**		**8,192**	**-**	**-**	**8,192**
1177	2064	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1178	2064	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1179	2064	Float	Historical	-	-	(1,981)	-	-	(1,981)
1180	**FY 2064**	**Subtotal:**		**439,447**		**8,192**	**-**	**-**	**8,192**
1181	2065	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1182	2065	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1183	2065	Float	Historical	-	-	(1,981)	-	-	(1,981)
1184	**FY 2065**	**Subtotal:**		**439,447**		**8,192**	**-**	**-**	**8,192**
1185	2066	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1186	2066	Replacements	New	219,724	2.315	5,087	-	-	5,087
1187	2066	Float	Historical	-	-	(1,981)	-	-	(1,981)
1188	**FY 2066**	**Subtotal:**		**439,447**		**8,192**	**-**	**-**	**8,192**
1189	2067	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1190	2067	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1191	2067	Float	Historical	-	-	(1,981)	-	-	(1,981)
1192	**FY 2067**	**Subtotal:**		**439,447**		**8,192**	**-**	**-**	**8,192**
1193	2068	Replacements	Historical	219,724	2.315%	5,087	-	-	5,087
1194	2068	Replacements	New	219,724	2.315%	5,087	-	-	5,087
1195	2068	Float	Historical	-	0	(1,981)	-	-	(1,981)
1196	**FY 2068**	**Subtotal:**		**439,447**		**8,192**	**-**	**-**	**8,192**
1197	**Grand Total:**			**87,885,276**		**2,961,458**	**-**	**(9,509)**	**2,951,949**

TABLE 11D:
Application of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
1	2016	Construction (AS)	-	8/12/2011	8/31/2016	3,500	3,500	1.423%	1.423%					3,500		
2	2016	Construction (AS)	-	6/30/2016	9/30/2016	7,000	7,000	0.436%	0.436%					7,000		
3	2016	Bonneville Dam	Corps of Engineers	9/30/1977	9/30/2027	15,670	15,670	7.150%	7.150%					15,670		
4	2016	Chief Joseph	Corps of Engineers	9/30/1977	9/30/2027	30,512	30,512	7.150%	7.150%					30,512		
5	2016	Lost Creek	Corps of Engineers	9/30/1977	9/30/2027	14,293	11,934	7.150%	7.150%					11,934		
6	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1977	9/30/2027	42,764	42,764	7.150%	7.150%					42,764		
7	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1977	9/30/2027	7,964	7,964	7.150%	7.150%					7,964		
8	2016	Lost Creek	Corps of Engineers	9/30/1978	9/30/2027	58	58	7.150%	7.150%					58		
9	2016	Lost Creek	Corps of Engineers	9/30/1979	9/30/2027	60	60	7.150%	7.150%					60		
10	2016	Lost Creek	Corps of Engineers	9/30/1980	9/30/2027	60	60	7.150%	7.150%					60		
11	2016	Lost Creek	Corps of Engineers	9/30/1981	9/30/2027	60	60	7.150%	7.150%					60		
12	2016	Lost Creek	Corps of Engineers	9/30/1982	9/30/2027	60	60	7.150%	7.150%					60		
13	2016	Lost Creek	Corps of Engineers	9/30/1983	9/30/2027	60	60	7.150%	7.150%					60		
14	2016	Lost Creek	Corps of Engineers	9/30/1985	9/30/2027	12	12	7.150%	7.150%					12		
15	2016	Lost Creek	Corps of Engineers	9/30/1986	9/30/2027	6	6	7.150%	7.150%					6		
16	2016	Lost Creek	Corps of Engineers	9/30/1987	9/30/2027	4	4	7.150%	7.150%					4		
17	2016	Chief Joseph	Corps of Engineers	9/30/1978	9/30/2028	75,669	75,669	7.150%	7.150%					75,669		
18	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1978	9/30/2028	42,399	42,399	7.150%	7.150%					42,399		
19	2016	Little Goose	Corps of Engineers	9/30/1978	9/30/2028	49,578	49,578	7.150%	7.150%					49,578		
20	2016	Lower Granite	Corps of Engineers	9/30/1978	9/30/2028	40,611	40,611	7.150%	7.150%					40,611		
21	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1978	9/30/2028	7,896	7,896	7.150%	7.150%					7,896		
22	2016	Little Goose	Corps of Engineers	9/30/1985	9/30/2028	47	47	7.150%	7.150%					47		
23	2016	Chief Joseph	Corps of Engineers	9/30/1979	9/30/2029	60,079	60,079	7.150%	7.150%					60,079		
24	2016	Lower Monument	Corps of Engineers	9/30/1979	9/30/2029	40,669	40,669	7.150%	7.150%					40,669		
25	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1979	9/30/2029	84,118	84,118	7.150%	7.150%					84,118		
26	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1979	9/30/2029	15,666	15,666	7.150%	7.150%					15,666		
27	2016	Chief Joseph	Corps of Engineers	9/30/1985	9/30/2029	16,372	16,372	7.150%	7.150%					16,372		
28	2016	Lower Monument	Corps of Engineers	9/30/1985	9/30/2029	256	256	7.150%	7.150%					256		
29	2016	Chief Joseph	Corps of Engineers	31685	47391	5,363	5,363	7.15	7.15					5,363		
30	2016	Chief Joseph	Corps of Engineers	9/30/1987	9/30/2029	3,036	3,036	7.150%	7.150%					3,036		
31	2016	Chief Joseph	Corps of Engineers	9/30/1988	9/30/2029	2,722	2,722	7.150%	7.150%					2,722		
32	2016	Chief Joseph	Corps of Engineers	9/30/1989	9/30/2029	2,227	2,227	7.150%	7.150%					2,227		
33	2016	Chief Joseph	Corps of Engineers	9/30/1990	9/30/2029	4,505	4,505	7.150%	7.150%					4,505		
34	2016	Libby	Corps of Engineers	9/30/1994	9/30/2029	286	152	7.150%	7.150%					152		
35	2016	Lower Granite	Corps of Engineers	9/30/1994	9/30/2029	3,543	1,551	7.150%	7.150%					1,551		
36	2016	Dworshak	Corps of Engineers	34972	47756	218	218	7.15	7.15					218		
37	2016	Libby	Corps of Engineers	9/30/1995	9/30/2030	15	15	7.150%	7.150%					15		
38	2016	Hungry Horse Dam	Bureau of Reclamation	9/30/1995	9/30/2030	536	536	7.150%	7.150%					536		
39	2016	Libby	Corps of Engineers	9/30/1995	9/30/2030	41	41	7.150%	7.150%					41		
40	2016	Hungry Horse Dam	Bureau of Reclamation	9/30/1995	9/30/2030	1,198	1,195	7.150%	7.150%					1,195		
41	2016	Libby	Corps of Engineers	9/30/1995	9/30/2030	94	94	7.150%	7.150%					94		
42	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1981	9/30/2031	40,964	40,964	7.150%	7.150%					40,964		
43	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1981	9/30/2031	455	455	7.150%	7.150%					455		
44	2016	Ice Harbor	Corps of Engineers	9/30/1996	9/30/2031	78	78	7.150%	7.150%					78		
45	2016	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2031	109	109	7.150%	7.150%					109		
46	2016	Lost Creek	Corps of Engineers	9/30/1996	9/30/2031	31	31	7.150%	7.150%					31		
47	2016	Lower Granite	Corps of Engineers	9/30/1996	9/30/2031	206	206	7.150%	7.150%					206		
48	2016	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2031	22	22	7.150%	7.150%					22		
49	2016	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2031	27	27	7.150%	7.150%					27		
50	2016	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2031	251	251	7.150%	7.150%					251		
51	2016	Dworshak	Corps of Engineers	9/30/1996	9/30/2031	6	6	7.150%	7.150%					6		
52	2016	Dworshak	Corps of Engineers	9/30/1996	9/30/2031	203	203	7.150%	7.150%					203		
53	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1982	9/30/2032	203,535	203,535	7.150%	7.150%					203,535		
54	2016	Bonneville 2nd Powerhouse	Corps of Engineers	30224	48487	2,264	2,264	7.15	7.15					2,264		
55	2016	Chief Joseph	Corps of Engineers	9/30/1997	9/30/2032	166	166	7.150%	7.150%					166		
56	2016	McNary	Corps of Engineers	9/30/1997	9/30/2032	30	30	7.150%	7.150%					30		
57	2016	Bonneville Dam	Corps of Engineers	9/30/1997	9/30/2032	518	518	7.150%	7.150%					518		
58	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1983	9/30/2033	62,409	62,409	7.150%	7.150%					62,409		
59	2016	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1983	9/30/2033	30,488	9,472	7.150%	7.150%					9,472		
60	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1983	9/30/2033	694	694	7.150%	7.150%					694		
61	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	30589	48852	712	712	7.15	7.15					712		
62	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1983	9/30/2033	13,003	13,003	7.150%	7.150%					13,003		
63	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1984	9/30/2033	16,965	16,965	7.150%	7.150%					16,965		
64	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1984	9/30/2033	13,192	13,192	7.150%	7.150%					13,192		
65	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1984	9/30/2033	3,160	3,160	7.150%	7.150%					3,160		
66	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1985	9/30/2033	9,138	9,138	7.150%	7.150%					9,138		
67	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1985	9/30/2033	2,060	2,060	7.150%	7.150%					2,060		
68	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1985	9/30/2033	41,772	41,772	7.150%	7.150%					41,772		
69	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1985	9/30/2033	107	107	7.150%	7.150%					107		
70	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1986	9/30/2033	30,578	30,578	7.150%	7.150%					30,578		
71	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1986	9/30/2033	1,851	1,851	7.150%	7.150%					1,851		
72	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1986	9/30/2033	15,538	15,538	7.150%	7.150%					15,538		
73	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1987	9/30/2033	14,439	14,439	7.150%	7.150%					9,092		
74		**FY 2016 Subtotal:**	**-**	**-**	**-**	**1,084,198**	**1,058,695**							**1,053,348**		
75	2017	Conservation	-	11/30/2012	11/30/2016	20,000	20,000	0.630%	0.630%					20,000		
76	2017	Construction (AS)	-	41394	42855	2,450	2,450	0.622	0.622					2,450		
77	2017	Construction (AS)	-	6/30/2013	6/30/2017	3,000	3,000	1.271%	1.271%					3,000		
78	2017	Construction (AS)	-	8/31/2013	8/31/2017	2,000	2,000	1.494%	1.494%					2,000		
79	2017	Construction (AS)	-	9/30/2015	9/30/2017	7,700	7,700	0.744%	0.744%					7,700		
80	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1987	9/30/2033	2,801	2,801	7.150%	7.150%					2,801		
81	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1987	9/30/2033	1,730	1,730	7.150%	7.150%					1,730		
82	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1987	9/30/2033	14,439	5,347	7.150%	7.150%					5,347		
83	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1988	9/30/2033	1,271	1,271	7.150%	7.150%					1,271		
84	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1988	9/30/2033	2,294	2,294	7.150%	7.150%					2,294		
85	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1988	9/30/2033	4,351	4,351	7.150%	7.150%					4,351		
86	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1989	9/30/2033	1,232	1,232	7.150%	7.150%					1,232		
87	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1989	9/30/2033	10,902	10,902	7.150%	7.150%					10,902		
88	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1990	9/30/2033	1,588	1,588	7.150%	7.150%					1,588		
89	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1990	9/30/2033	6,383	6,383	7.150%	7.150%					6,383		
90	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1985	9/30/2035	47,921	47,921	7.150%	7.150%					47,921		
91	2017	John Day	Corps of Engineers	9/30/1995	9/30/2035	22	22	7.150%	7.150%					22		
92	2017	John Day	Corps of Engineers	9/30/1995	9/30/2035	52	52	7.150%	7.150%					52		
93	2017	John Day	Corps of Engineers	9/30/1995	9/30/2035	121	121	7.150%	7.150%					121		

TABLE 11D:
Application of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
94	2017	Lower Monument	Corps of Engineers	9/30/1996	9/30/2036	264	264	7.150%	7.150%					264		
95	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1987	9/30/2037	72,536	72,536	7.150%	7.150%					72,536		
96	2017	Libby	Corps of Engineers	9/30/1988	9/30/2038	18,043	14,781	7.150%	7.150%					14,781		
97	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1988	9/30/2038	805	805	7.150%	7.150%					805		
98	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	33146	51409	1,557	1,557	7.15	7.15					1,557		
99	2017	Little Goose	Corps of Engineers	9/30/1995	9/30/2040	17	17	7.150%	7.150%					17		
100	2017	Little Goose	Corps of Engineers	9/30/1995	9/30/2040	450	450	7.150%	7.150%					450		
101	2017	Little Goose	Corps of Engineers	9/30/1995	9/30/2040	733	733	7.150%	7.150%					733		
102	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1991	9/30/2041	4,411	4,411	7.150%	7.150%					4,411		
103	2017	Ice Harbor	Corps of Engineers	9/30/1996	9/30/2041	371	371	7.150%	7.150%					371		
104	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1993	9/30/2043	71,632	71,632	7.150%	7.150%					40,384		
105		**FY 2017 Subtotal:**	**-**	**-**	**-**	**301,076**	**288,722**							**257,473**		
106	2018	Conservation	-	1/31/2013	1/31/2018	9,000	9,000	1.107%	1.107%					9,000		
107	2018	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1993	9/30/2043	71,632	31,248	7.150%	7.150%					31,248		
108	2018	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1994	9/30/2044	5,700	5,700	7.150%	7.150%					5,700		
109	2018	Chief Joseph	Corps of Engineers	9/30/1994	9/30/2044	4,280	4,017	7.150%	7.150%					4,017		
110	2018	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1994	9/30/2044	4,722	4,722	7.150%	7.150%					4,722		
111	2018	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1994	9/30/2044	12,631	12,631	7.150%	7.150%					12,631		
112	2018	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1995	9/30/2045	3,791	3,791	7.150%	7.150%					3,791		
113	2018	Columbia River Fish Mitigation	Corps of Engineers	9/30/1995	9/30/2045	43,343	39,282	7.150%	7.150%					39,282		
114	2018	Detroit Lake/Big Cliff	Corps of Engineers	9/30/1995	9/30/2045	38	38	7.150%	7.150%					38		
115	2018	Lookout Dam	Corps of Engineers	9/30/1995	9/30/2045	80	39	7.150%	7.150%					39		
116	2018	Lost Creek	Corps of Engineers	9/30/1995	9/30/2045	94	94	7.150%	7.150%					94		
117	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	41	41	7.150%	7.150%					41		
118	2018	McNary	Corps of Engineers	9/30/1995	9/30/2045	16	16	7.150%	7.150%					16		
119	2018	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	147	147	7.150%	7.150%					147		
120	2018	Dworshak	Corps of Engineers	9/30/1995	9/30/2045	1,162	1,162	7.150%	7.150%					1,162		
121	2018	John Day	Corps of Engineers	9/30/1995	9/30/2045	37	37	7.150%	7.150%					37		
122	2018	Lookout Dam	Corps of Engineers	9/30/1995	9/30/2045	33	33	7.150%	7.150%					33		
123	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	99	99	7.150%	7.150%					99		
124	2018	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	531	531	7.150%	7.150%					457		
125	2018	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	562	562	7.150%	7.150%					562		
126	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	624	624	7.150%	7.150%					624		
127	2018	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	1,105	1,105	7.150%	7.150%					1,105		
128	2018	Bonneville Dam	Corps of Engineers	9/30/1995	9/30/2045	243	243	7.150%	7.150%					243		
129	2018	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	712	712	7.150%	7.150%					712		
130	2018	Columbia Basin	Bureau of Reclamation	9/30/1995	9/30/2045	287	287	7.150%	7.150%					287		
131	2018	Hungry Horse Dam	Bureau of Reclamation	9/30/1995	9/30/2045	6,190	6,190	7.150%	7.150%					6,190		
132	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	1,122	1,122	7.150%	7.150%					1,122		
133	2018	Bonneville Dam	Corps of Engineers	9/30/1995	9/30/2045	410	410	7.150%	7.150%					410		
134	2018	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	784	784	7.150%	7.150%					784		
135	2018	Columbia Basin	Bureau of Reclamation	34972	53235	2,511	2,453	7.15	7.15					2,453		
136	2018	Bonneville Dam	Corps of Engineers	9/30/1995	9/30/2045	440	440	7.150%	7.150%					440		
137	2018	John Day	Corps of Engineers	9/30/1995	9/30/2045	608	608	7.150%	7.150%					608		
138	2018	John Day	Corps of Engineers	9/30/1995	9/30/2045	7,653	7,653	7.150%	7.150%					7,653		
139		**FY 2018 Subtotal:**	**-**	**-**	**-**	**180,628**	**135,821**							**135,747**		
140	2019	Bureau Direct	-	10/31/2009	10/31/2018	24,000	24,000	3.719%	3.719%					24,000		
141	2019	Construction (AS)	-	11/30/2012	11/30/2018	5,250	5,250	1.109%	1.109%					5,250		
142	2019	Fish and Wildlife	-	12/31/2009	12/31/2018	26,000	26,000	4.069%	4.069%					26,000		
143	2019	Bureau Direct	-	1/16/2014	12/31/2018	43,000	43,000	1.943%	1.943%					43,000		
144	2019	Bureau Direct	-	1/16/2014	12/31/2018	38,000	38,000	1.943%	1.943%					38,000		
145	2019	Fish and Wildlife	-	8/31/2010	8/31/2019	20,000	20,000	2.646%	2.646%					20,000		
146	2019	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	443	443	7.150%	7.150%					443		
147	2019	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	531	74	7.150%	7.150%					74		
148	2019	Boise	Bureau of Reclamation	9/30/1996	9/30/2046	442	442	7.150%	7.150%					442		
149	2019	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1996	9/30/2046	376	376	7.150%	7.150%					376		
150	2019	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	18	18	7.150%	7.150%					18		
151	2019	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	3	3	7.150%	7.150%					3		
152	2019	Columbia River Fish Mitigation	Corps of Engineers	9/30/1996	9/30/2046	2,431	2,431	7.150%	7.150%					2,431		
153	2019	Dworshak	Corps of Engineers	9/30/1996	9/30/2046	3	3	7.150%	7.150%					3		
154	2019	Green Peter/Foster	Corps of Engineers	9/30/1996	9/30/2046	26	26	7.150%	7.150%					26		
155	2019	Hills Creek	Corps of Engineers	9/30/1996	9/30/2046	28	28	7.150%	7.150%					28		
156	2019	Hungry Horse Dam	Bureau of Reclamation	9/30/1996	9/30/2046	15	15	7.150%	7.150%					15		
157	2019	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	10	10	7.150%	7.150%					10		
158	2019	Lost Creek	Corps of Engineers	9/30/1996	9/30/2046	24	24	7.150%	7.150%					24		
159	2019	Lower Granite	Corps of Engineers	9/30/1996	9/30/2046	9	9	7.150%	7.150%					9		
160	2019	Lower Monument	Corps of Engineers	9/30/1996	9/30/2046	10	10	7.150%	7.150%					10		
161	2019	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1996	9/30/2046	12,085	12,085	7.150%	7.150%					12,085		
162	2019	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	18	18	7.150%	7.150%					18		
163	2019	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	4	4	7.150%	7.150%					4		
164	2019	Dworshak	Corps of Engineers	35338	53600	4	4	7.15	7.15					4		
165	2019	Hungry Horse Dam	Bureau of Reclamation	9/30/1996	9/30/2046	2	2	7.150%	7.150%					2		
166	2019	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	10	10	7.150%	7.150%					10		
167	2019	Boise	Bureau of Reclamation	9/30/1996	9/30/2046	656	656	7.150%	7.150%					656		
168	2019	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	211	211	7.150%	7.150%					211		
169	2019	The Dalles	Corps of Engineers	9/30/1996	9/30/2046	1,991	1,991	7.150%	7.150%					1,991		
170	2019	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	80	80	7.150%	7.150%					80		
171	2019	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	355	355	7.150%	7.150%					355		
172	2019	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2046	426	426	7.150%	7.150%					426		
173	2019	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	241	241	7.150%	7.150%					241		
174	2019	Lower Granite	Corps of Engineers	9/30/1996	9/30/2046	625	625	7.150%	7.150%					625		
175	2019	McNary	Corps of Engineers	9/30/1996	9/30/2046	619	619	7.150%	7.150%					619		
176	2019	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	109	109	7.150%	7.150%					109		
177	2019	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	729	729	7.150%	7.150%					729		
178	2019	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2046	368	368	7.150%	7.150%					368		
179	2019	Dworshak	Corps of Engineers	9/30/1996	9/30/2046	46	46	7.150%	7.150%					46		
180	2019	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	520	520	7.150%	7.150%					520		
181	2019	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	142	142	7.150%	7.150%					142		
182	2019	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	3,909	3,909	7.150%	7.150%					3,909		
183	2019	Bonneville Dam	Corps of Engineers	35338	53600	223	223	7.15	7.15					223		
184	2019	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	751	751	7.150%	7.150%					751		
185	2019	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	1,322	1,322	7.150%	7.150%					1,322		
186	2019	Albeni Falls	Corps of Engineers	9/30/1997	9/30/2047	431	431	7.150%	7.150%					431		

TABLE 11D:
Application of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
187	2019	Columbia Basin	Bureau of Reclamation	9/30/1997	9/30/2047	3,393	3,393	7.150%	7.150%					3,393		
188	2019	Cougar	Corps of Engineers	9/30/1997	9/30/2047	26	26	7.150%	7.150%					26		
189	2019	Dworshak	Corps of Engineers	9/30/1997	9/30/2047	7,588	7,588	7.150%	7.150%					7,588		
190	2019	Little Goose	Corps of Engineers	9/30/1997	9/30/2047	1	1	7.150%	7.150%					1		
191	2019	Lower Granite	Corps of Engineers	9/30/1997	9/30/2047	677	677	7.150%	7.150%					677		
192	2019	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1997	9/30/2047	2,173	2,173	7.150%	7.150%					2,173		
193	2019	Boise	Bureau of Reclamation	9/30/1997	9/30/2047	2,266	2,266	7.150%	7.150%					2,266		
194	2019	Chief Joseph	Corps of Engineers	9/30/1997	9/30/2047	657	657	7.150%	7.150%					657		
195	2019	Hungry Horse Dam	Bureau of Reclamation	9/30/1997	9/30/2047	111	111	7.150%	7.150%					111		
196	2019	Ice Harbor	Corps of Engineers	9/30/1997	9/30/2047	67	67	7.150%	7.150%					67		
197	2019	John Day	Corps of Engineers	9/30/1997	9/30/2047	179	179	7.150%	7.150%					179		
198	2019	Libby	Corps of Engineers	9/30/1997	9/30/2047	660	660	7.150%	7.150%					660		
199	2019	Minidoka/Palisades	Bureau of Reclamation	9/30/1997	9/30/2047	50,911	50,911	7.150%	7.150%					50,911		
200	2019	Bonneville Dam	Corps of Engineers	9/30/1997	9/30/2047	161	161	7.150%	7.150%					161		
201	2019	Bonneville Dam	Corps of Engineers	9/30/2000	9/30/2050	24,446	24,446	6.125%	6.125%					17,992		
202	2019	Columbia River Fish Mitigation	Corps of Engineers	9/30/2000	9/30/2050	47,006	47,006	6.125%	6.125%					47,006		
203	2019	Hills Creek	Corps of Engineers	9/30/2000	9/30/2050	2,630	2,630	6.125%	6.125%					2,630		
204	2019	Ice Harbor	Corps of Engineers	9/30/2000	9/30/2050	548	548	6.125%	6.125%					548		
205	2019	John Day	Corps of Engineers	9/30/2000	9/30/2050	2,761	2,761	6.125%	6.125%					2,761		
206	2019	Lookout Dam	Corps of Engineers	9/30/2000	9/30/2050	5,098	5,098	6.125%	6.125%					5,098		
207	2019	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2000	9/30/2050	1,529	1,529	6.125%	6.125%					1,529		
208	2019	The Dalles	Corps of Engineers	9/30/2000	9/30/2050	2,588	2,588	6.125%	6.125%					2,588		
209		**FY 2019 Subtotal:**	-	-	-	**341,973**	**341,516**							**335,062**		
210	2020	Construction (AS)	-	10/31/2013	10/31/2019	4,200	4,200	2.039%	2.039%					4,200		
211	2020	Construction (AS)	-	10/31/2013	10/31/2019	5,000	5,000	2.039%	2.039%					5,000		
212	2020	Bureau Direct	-	10/31/2009	10/31/2019	20,000	20,000	3.842%	3.842%					20,000		
213	2020	Bureau Direct	-	11/30/2009	11/30/2019	7,000	7,000	3.637%	3.637%					7,000		
214	2020	Bureau Direct	-	12/31/2009	12/31/2019	13,000	13,000	4.194%	4.194%					13,000		
215	2020	Construction (AS)	-	1/31/2014	1/31/2020	1,750	1,750	2.183%	2.183%					1,750		
216	2020	Construction (AS)	-	1/31/2014	1/31/2020	2,000	2,000	2.183%	2.183%					2,000		
217	2020	Construction (AS)	-	4/30/2014	3/31/2020	1,400	1,400	0.519%	0.519%					1,400		
218	2020	Construction (AS)	-	4/30/2014	3/31/2020	2,000	2,000	0.519%	0.519%					2,000		
219	2020	Bureau Direct	-	3/31/2010	3/31/2020	30,000	30,000	4.083%	4.083%					30,000		
220	2020	Bureau Direct	-	4/30/2010	4/30/2020	18,000	18,000	3.973%	3.973%					18,000		
221	2020	Construction (AS)	-	5/31/2014	4/30/2020	700	700	0.483%	0.483%					700		
222	2020	Bureau Direct	-	5/31/2010	5/31/2020	15,000	15,000	3.574%	3.574%					15,000		
223	2020	Bureau Direct	-	7/31/2010	7/31/2020	17,000	17,000	3.118%	3.118%					17,000		
224	2020	Construction (AS)	-	7/31/2014	7/31/2020	1,050	1,050	0.505%	0.505%					1,050		
225	2020	Bonneville Dam	Corps of Engineers	9/30/1999	9/30/2049	19,368	19,368	5.375%	5.375%					19,368		
226	2020	Columbia River Fish Mitigation	Corps of Engineers	9/30/1999	9/30/2049	14,115	14,115	5.375%	5.375%					14,115		
227	2020	Dworshak	Corps of Engineers	9/30/1999	9/30/2049	630	630	5.375%	5.375%					630		
228	2020	Ice Harbor	Corps of Engineers	9/30/1999	9/30/2049	5,516	5,516	5.375%	5.375%					5,516		
229	2020	John Day	Corps of Engineers	9/30/1999	9/30/2049	3,510	3,510	5.375%	5.375%					3,510		
230	2020	Lower Granite	Corps of Engineers	9/30/1999	9/30/2049	856	856	5.375%	5.375%					856		
231	2020	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1999	9/30/2049	7	7	5.375%	5.375%					7		
232	2020	Bonneville Dam	Corps of Engineers	9/30/2000	9/30/2050	24,446	6,454	6.125%	6.125%					6,454		
233	2020	Bonneville Dam	Corps of Engineers	37164	55426	2,530	2,530	5.875	5.875					2,530		
234	2020	Chief Joseph	Corps of Engineers	9/30/2001	9/30/2051	345	345	5.875%	5.875%					345		
235	2020	Columbia Basin	Bureau of Reclamation	9/30/2001	9/30/2051	69,226	69,226	5.875%	5.875%					69,226		
236	2020	Columbia River Fish Mitigation	Corps of Engineers	9/30/2001	9/30/2051	6,168	6,168	5.875%	5.875%					6,168		
237	2020	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2001	9/30/2051	282	282	5.875%	5.875%					282		
238	2020	Green Peter/Foster	Corps of Engineers	9/30/2001	9/30/2051	200	200	5.875%	5.875%					200		
239	2020	Hills Creek	Corps of Engineers	9/30/2001	9/30/2051	8	8	5.875%	5.875%					8		
240	2020	Hungry Horse Dam	Bureau of Reclamation	9/30/2001	9/30/2051	552	552	5.875%	5.875%					552		
241	2020	Ice Harbor	Corps of Engineers	9/30/2001	9/30/2051	764	764	5.875%	5.875%					764		
242	2020	John Day	Corps of Engineers	9/30/2001	9/30/2051	619	619	5.875%	5.875%					619		
243	2020	Libby	Corps of Engineers	9/30/2001	9/30/2051	5,562	5,562	5.875%	5.875%					5,562		
244	2020	Little Goose	Corps of Engineers	9/30/2001	9/30/2051	4,608	4,608	5.875%	5.875%					4,608		
245	2020	Lost Creek	Corps of Engineers	9/30/2001	9/30/2051	147	147	5.875%	5.875%					147		
246	2020	Lower Granite	Corps of Engineers	9/30/2001	9/30/2051	2,025	2,025	5.875%	5.875%					2,025		
247	2020	Lower Monument	Corps of Engineers	9/30/2001	9/30/2051	3,301	3,301	5.875%	5.875%					3,301		
248	2020	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2001	9/30/2051	325	325	5.875%	5.875%					325		
249	2020	McNary	Corps of Engineers	9/30/2001	9/30/2051	1,046	1,046	5.875%	5.875%					1,046		
250	2020	Minidoka/Palisades	Bureau of Reclamation	9/30/2001	9/30/2051	42	42	5.875%	5.875%					42		
251	2020	RRP - Green Springs	Bureau of Reclamation	9/30/2001	9/30/2051	11,145	11,145	5.875%	5.875%					11,145		
252	2020	Yakima Roza	Bureau of Reclamation	9/30/2001	9/30/2051	15	14	5.875%	5.875%					14		
253	2020	Bonneville Dam	Corps of Engineers	9/30/2002	9/30/2052	448	448	5.500%	5.500%					448		
254	2020	Chief Joseph	Corps of Engineers	9/30/2002	9/30/2052	2	2	5.500%	5.500%					2		
255	2020	Columbia River Fish Mitigation	Corps of Engineers	9/30/2002	9/30/2052	8,797	8,797	5.500%	5.500%					8,797		
256	2020	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2002	9/30/2052	18	18	5.500%	5.500%					18		
257	2020	Dworshak	Corps of Engineers	9/30/2002	9/30/2052	199	199	5.500%	5.500%					199		
258	2020	Hills Creek	Corps of Engineers	9/30/2002	9/30/2052	2	2	5.500%	5.500%					2		
259	2020	Ice Harbor	Corps of Engineers	9/30/2002	9/30/2052	1,014	1,014	5.500%	5.500%					1,014		
260	2020	Little Goose	Corps of Engineers	9/30/2002	9/30/2052	27	27	5.500%	5.500%					27		
261	2020	Lower Granite	Corps of Engineers	9/30/2002	9/30/2052	1,275	1,275	5.500%	5.500%					1,275		
262	2020	Lower Monument	Corps of Engineers	9/30/2002	9/30/2052	29	29	5.500%	5.500%					29		
263	2020	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2002	9/30/2052	890	890	5.500%	5.500%					890		
264	2020	The Dalles	Corps of Engineers	9/30/2002	9/30/2052	1,226	1,226	5.500%	5.500%					1,226		
265	2020	Columbia River Fish Mitigation	Corps of Engineers	9/30/2004	9/30/2054	60,581	60,581	5.375%	5.375%					733		
266	2020	Ice Harbor	Corps of Engineers	9/30/2004	9/30/2054	3,321	3,321	5.375%	5.375%					3,321		
267	2020	John Day	Corps of Engineers	9/30/2004	9/30/2054	2,830	2,830	5.375%	5.375%					2,830		
268	2020	Little Goose	Corps of Engineers	9/30/2004	9/30/2054	68	67	5.375%	5.375%					67		
269	2020	Lower Monument	Corps of Engineers	9/30/2004	9/30/2054	3,423	3,423	5.375%	5.375%					3,423		
270	2020	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2004	9/30/2054	230	230	5.375%	5.375%					230		
271	2020	McNary	Corps of Engineers	9/30/2004	9/30/2054	6,138	6,138	5.375%	5.375%					6,138		
272	2020	The Dalles	Corps of Engineers	9/30/2004	9/30/2054	182	182	5.375%	5.375%					182		
273		**FY 2020 Subtotal:**	-	-	-	**406,154**	**388,161**							**328,313**		

TABLE 11D:
Application of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
274	2021	Construction (AS)	-	11/30/2014	11/30/2020	2,100	2,100	1.809%	1.809%					2,100		
275	2021	Construction (AS)	-	12/31/2014	12/31/2020	1,050	1,050	1.922%	1.922%					1,050		
276	2021	Technology (G)	-	1/31/2015	1/31/2021	35,000	35,000	1.469%	1.469%					35,000		
277	2021	Bureau Direct	-	1/31/2009	1/31/2021	25,000	25,000	3.999%	3.999%					25,000		
278	2021	Construction (AS)	-	2/28/2015	2/28/2021	1,750	1,750	1.761%	1.761%					1,750		
279	2021	Construction (AS)	-	5/31/2015	5/31/2021	2,100	2,100	1.898%	1.898%					2,100		
280	2021	Conservation	-	5/31/2015	5/31/2021	5,000	5,000	1.898%	1.898%					5,000		
281	2021	Conservation	-	7/31/2015	7/31/2021	14,000	14,000	2.067%	2.067%					14,000		
282	2021	Bureau Direct	-	11/20/2013	9/30/2021	50,000	50,000	2.812%	2.812%					50,000		
283	2021	Bureau Direct	-	9/30/2010	9/30/2021	22,000	22,000	2.883%	2.883%					22,000		
284	2021	Bureau Direct	-	6/30/2009	6/30/2039	25,000	25,000	5.192%	5.192%					25,000	2,750	
285	2021	Bonneville Dam	Corps of Engineers	9/30/2003	9/30/2053	4,581	4,581	5.125%	5.125%					4,581		
286	2021	Columbia River Fish Mitigation	Corps of Engineers	9/30/2003	9/30/2053	68,440	68,440	5.125%	5.125%					68,440		
287	2021	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2003	9/30/2053	223	223	5.125%	5.125%					223		
288	2021	Dworshak	Corps of Engineers	9/30/2003	9/30/2053	761	761	5.125%	5.125%					761		
289	2021	Ice Harbor	Corps of Engineers	9/30/2003	9/30/2053	50	50	5.125%	5.125%					50		
290	2021	Little Goose	Corps of Engineers	9/30/2003	9/30/2053	146	146	5.125%	5.125%					146		
291	2021	Lookout Dam	Corps of Engineers	9/30/2003	9/30/2053	135	135	5.125%	5.125%					135		
292	2021	Lower Granite	Corps of Engineers	9/30/2003	9/30/2053	42	42	5.125%	5.125%					42		
293	2021	Lower Monument	Corps of Engineers	9/30/2003	9/30/2053	22	22	5.125%	5.125%					22		
294	2021	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2003	9/30/2053	98	98	5.125%	5.125%					98		
295	2021	McNary	Corps of Engineers	9/30/2003	9/30/2053	97	97	5.125%	5.125%					97		
296	2021	Chief Joseph	Corps of Engineers	9/30/2003	9/30/2053	992	992	5.125%	5.125%					992		
297	2021	Bonneville Dam	Corps of Engineers	9/30/2004	9/30/2054	26,741	26,741	5.375%	5.375%					26,741		
298	2021	Columbia River Fish Mitigation	Corps of Engineers	9/30/2004	9/30/2054	60,581	59,848	5.375%	5.375%					59,848		
299	2021	Cougar	Corps of Engineers	9/30/2004	9/30/2054	3,622	3,622	5.375%	5.375%					3,622		
300	2021	The Dalles	Corps of Engineers	9/30/2005	9/30/2055	36,019	36,019	5.125%	5.125%					9,553		
301	2021	Yakima Chandler/Kenniwick	Bureau of Reclamation	9/30/2005	9/30/2055	833	833	5.125%	5.125%					833		
302		**FY 2021 Subtotal:**	-	-	-	**386,382**	**385,649**							**359,184**	**2,750**	
303	2022	Construction (AS)	-	10/31/2015	10/31/2021	2,800	2,800	1.942%	1.942%					2,800		
304	2022	Conservation	-	12/31/2013	12/31/2021	6,000	6,000	3.142%	3.142%					6,000		
305	2022	Construction (AS)	-	2/29/2016	2/28/2022	3,000	3,000	0.515%	0.515%					3,000		
306	2022	Technology (G)	-	10/31/2015	7/31/2022	6,000	6,000	0.505%	0.505%					6,000		
307	2022	Conservation	-	8/31/2015	8/31/2022	6,000	6,000	2.233%	2.233%					6,000		
308	2022	Bureau Direct	-	11/20/2013	9/30/2022	19,000	19,000	3.125%	3.125%					19,000		
309	2022	Fish and Wildlife	-	11/20/2013	9/30/2022	31,000	31,000	3.125%	3.125%					31,000		
310	2022	Conservation	-	9/30/2015	9/30/2022	4,000	4,000	2.062%	2.062%					4,000		
311	2022	Technology (G)	-	9/30/2017	9/30/2022	5,000	5,000	3.000%	3.000%					5,000		
312	2022	Bureau Direct	-	1/31/2011	1/31/2039	35,000	35,000	5.040%	5.040%					35,000	3,118	
313	2022	Bureau Direct	-	2/28/2011	2/28/2040	50,000	50,000	4.995%	4.995%					43,010	3,507	
314	2022	Albeni Falls	Corps of Engineers	9/30/2005	9/30/2055	481	481	5.125%	5.125%					481		
315	2022	Boise	Bureau of Reclamation	9/30/2005	9/30/2055	903	903	5.125%	5.125%					903		
316	2022	Bonneville Dam	Corps of Engineers	9/30/2005	9/30/2055	19,725	19,725	5.125%	5.125%					19,725		
317	2022	Columbia Basin	Bureau of Reclamation	9/30/2005	9/30/2055	10,963	10,963	5.125%	5.125%					10,963		
318	2022	Columbia River Fish Mitigation	Corps of Engineers	9/30/2005	9/30/2055	52,039	52,039	5.125%	5.125%					52,039		
319	2022	Cougar	Corps of Engineers	9/30/2005	9/30/2055	8,130	8,130	5.125%	5.125%					8,130		
320	2022	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2005	9/30/2055	1,031	1,031	5.125%	5.125%					1,031		
321	2022	Dworshak	Corps of Engineers	9/30/2005	9/30/2055	713	713	5.125%	5.125%					713		
322	2022	Hills Creek	Corps of Engineers	9/30/2005	9/30/2055	46	46	5.125%	5.125%					46		
323	2022	Hungry Horse Dam	Bureau of Reclamation	9/30/2005	9/30/2055	2,951	2,951	5.125%	5.125%					2,951		
324	2022	John Day	Corps of Engineers	9/30/2005	9/30/2055	2,828	2,827	5.125%	5.125%					2,827		
325	2022	Lookout Dam	Corps of Engineers	9/30/2005	9/30/2055	7,355	7,355	5.125%	5.125%					7,355		
326	2022	Lower Granite	Corps of Engineers	9/30/2005	9/30/2055	393	393	5.125%	5.125%					393		
327	2022	Lower Monument	Corps of Engineers	9/30/2005	9/30/2055	527	527	5.125%	5.125%					527		
328	2022	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2005	9/30/2055	4	4	5.125%	5.125%					4		
329	2022	McNary	Corps of Engineers	9/30/2005	9/30/2055	550	550	5.125%	5.125%					550		
330	2022	The Dalles	Corps of Engineers	9/30/2005	9/30/2055	36,019	26,466	5.125%	5.125%					26,466		
331	2022	The Dalles	Corps of Engineers	9/30/2006	9/30/2056	2,030	2,030	4.500%	4.500%					0		
332	2022	Boise	Bureau of Reclamation	9/30/2007	9/30/2057	76	76	5.000%	5.000%					76		
333	2022	Bonneville Dam	Corps of Engineers	9/30/2007	9/30/2057	1,124	1,124	5.000%	5.000%					1,124		
334	2022	Columbia Basin	Bureau of Reclamation	9/30/2007	9/30/2057	929	929	5.000%	5.000%					929		
335	2022	Columbia River Fish Mitigation	Corps of Engineers	9/30/2007	9/30/2057	53,525	53,525	5.000%	5.000%					53,525		
336	2022	Cougar	Corps of Engineers	9/30/2007	9/30/2057	120	120	5.000%	5.000%					120		
337	2022	Hungry Horse Dam	Bureau of Reclamation	9/30/2007	9/30/2057	294	294	5.000%	5.000%					294		
338	2022	John Day	Corps of Engineers	9/30/2007	9/30/2057	233	233	5.000%	5.000%					233		
339	2022	Lookout Dam	Corps of Engineers	9/30/2007	9/30/2057	572	572	5.000%	5.000%					572		
340	2022	The Dalles	Corps of Engineers	9/30/2007	9/30/2057	140	140	5.000%	5.000%					140		
341		**FY 2022 Subtotal:**	-	-	-	**371,498**	**361,945**							**352,925**	**6,626**	
342	2023	Conservation	-	1/31/2011	1/31/2023	40,000	40,000	4.046%	4.046%					40,000		
343	2023	Conservation	-	4/30/2011	4/30/2023	35,000	35,000	3.932%	3.932%					35,000		
344	2023	Conservation	-	8/12/2011	8/31/2023	40,000	40,000	3.206%	3.206%					40,000		
345	2023	Conservation	-	11/20/2013	9/30/2023	27,000	27,000	3.375%	3.375%					27,000		
346	2023	Construction (AS)	-	9/30/2017	9/30/2023	5,250	5,250	3.120%	3.120%					5,250		
347	2023	Technology (G)	-	9/30/2018	9/30/2023	5,000	5,000	3.630%	3.630%					5,000		
348	2023	Fish and Wildlife	-	6/30/2009	6/30/2024	20,000	20,000	4.556%	4.556%					20,000	311	
349	2023	Bureau Direct	-	6/22/2011	6/30/2036	30,000	30,000	4.629%	4.629%					30,000	1,355	
350	2023	Bureau Direct	-	6/22/2011	6/30/2038	30,000	30,000	4.700%	4.700%					30,000	1,543	
351	2023	Bureau Direct	-	2/28/2011	2/28/2040	50,000	6,990	4.995%	4.995%					6,990	573	
352	2023	Columbia River Fish Mitigation	Corps of Engineers	9/30/2006	9/30/2056	366,395	366,395	4.500%	4.500%					122,612		
353	2023	John Day	Corps of Engineers	9/30/2006	9/30/2056	601	601	4.500%	4.500%					601		
354	2023	Lower Monument	Corps of Engineers	9/30/2006	9/30/2056	285	285	4.500%	4.500%					285		
355	2023	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2006	9/30/2056	379	379	4.500%	4.500%					379		
356	2023	The Dalles	Corps of Engineers	9/30/2006	9/30/2056	2,030	2,030	4.500%	4.500%					2,030		
357	2023	McNary	Corps of Engineers	9/30/2006	9/30/2056	4,080	4,080	4.500%	4.500%					4,080		
358		**FY 2023 Subtotal:**	-	-	-	**656,019**	**613,009**							**369,227**	**3,782**	

TABLE 11D:
Application of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
359	2024	Conservation	-	12/31/2013	12/31/2023	55,000	55,000	0.490%	0.490%					55,000		
360	2024	Conservation	-	12/31/2014	12/31/2023	7,000	7,000	2.403%	2.403%					7,000		
361	2024	Conservation	-	1/31/2015	1/31/2024	7,000	7,000	1.908%	1.908%					7,000		
362	2024	Fish and Wildlife	-	1/31/2015	1/31/2024	5,000	5,000	1.908%	1.908%					5,000		
363	2024	Conservation	-	2/28/2015	2/29/2024	8,000	8,000	2.251%	2.251%					8,000		
364	2024	Conservation	-	4/30/2015	4/30/2024	5,000	5,000	2.269%	2.269%					5,000		
365	2024	Conservation	-	5/31/2014	4/30/2024	15,000	15,000	0.483%	0.483%					15,000		
366	2024	Construction (AS)	-	9/30/2018	9/30/2024	5,950	5,950	3.700%	3.700%					5,950		
367	2024	Corps	-	9/30/2018	9/30/2043	52,000	52,000	4.470%	4.470%					9,099		
368	2024	Boise	Bureau of Reclamation	9/30/2006	9/30/2056	15	15	4.500%	4.500%					15		
369	2024	Bonneville Dam	Corps of Engineers	38990	57253	2,628	2,628	4.5	4.5					2,628		
370	2024	Columbia Basin	Bureau of Reclamation	9/30/2006	9/30/2056	1,987	1,987	4.500%	4.500%					1,987		
371	2024	Columbia River Fish Mitigation	Corps of Engineers	9/30/2006	9/30/2056	366,395	243,782	4.500%	4.500%					243,782		
372	2024	Cougar	Corps of Engineers	9/30/2006	9/30/2056	109	109	4.500%	4.500%					109		
373	2024	Dworshak	Corps of Engineers	9/30/2006	9/30/2056	73	73	4.500%	4.500%					73		
374		**FY 2024 Subtotal:**	-	-	-	**531,156**	**408,544**							**365,643**		
375	2025	Conservation	-	6/30/2014	10/31/2024	5,000	5,000	0.483%	0.483%					5,000		
376	2025	Conservation	-	10/31/2014	12/31/2024	10,000	10,000	0.490%	0.490%					10,000		
377	2025	Conservation	-	3/31/2015	3/31/2025	5,000	5,000	2.295%	2.295%					5,000		
378	2025	Conservation	-	5/31/2014	4/30/2025	3,000	3,000	0.483%	0.483%					3,000		
379	2025	Conservation	-	4/30/2014	6/30/2025	30,000	30,000	0.490%	0.490%					30,000		
380	2025	Conservation	-	7/31/2014	7/31/2025	12,000	12,000	0.505%	0.505%					12,000		
381	2025	Conservation	-	8/31/2014	9/30/2025	4,000	4,000	0.519%	0.519%					4,000		
382	2025	Fish and Wildlife	-	1/31/2011	1/31/2026	50,000	50,000	4.440%	4.440%					50,000	467	
383	2025	Fish and Wildlife	-	2/28/2011	2/28/2026	15,000	15,000	4.398%	4.398%					15,000	132	
384	2025	Bureau Direct	-	8/31/2018	8/31/2040	28,000	28,000	4.380%	4.380%					28,000		
385	2025	Corps	-	8/31/2018	8/31/2041	53,000	53,000	4.410%	4.410%					53,000		
386	2025	Bureau Direct	-	9/30/2018	9/30/2042	28,000	28,000	4.440%	4.440%					28,000		
387	2025	Corps	-	9/30/2018	9/30/2043	52,000	42,901	4.470%	4.470%					42,901		
388	2025	Boise	Bureau of Reclamation	9/30/2009	9/30/2059	2	2	4.375%	4.375%					2		
389	2025	Columbia River Fish Mitigation	Corps of Engineers	9/30/2009	9/30/2059	103,203	103,203	4.375%	4.375%					60,603		
390	2025	Dworshak	Corps of Engineers	9/30/2009	9/30/2059	2,425	2,425	4.375%	4.375%					2,425		
391	2025	Ice Harbor	Corps of Engineers	9/30/2009	9/30/2059	2,615	2,615	4.375%	4.375%					2,615		
392	2025	Little Goose	Corps of Engineers	9/30/2009	9/30/2059	3,171	3,171	4.375%	4.375%					3,171		
393	2025	Lower Granite	Corps of Engineers	9/30/2009	9/30/2059	5,669	5,669	4.375%	4.375%					5,669		
394	2025	Lower Monument	Corps of Engineers	9/30/2009	9/30/2059	2,332	2,332	4.375%	4.375%					2,332		
395		**FY 2025 Subtotal:**	-	-	-	**414,418**	**405,319**							**362,719**	**599**	
396	2026	Conservation	-	10/31/2013	10/31/2025	34,000	34,000	3.568%	3.568%					34,000		
397	2026	Conservation	-	1/31/2014	1/31/2026	5,000	5,000	3.621%	3.621%					5,000		
398	2026	Fish and Wildlife	-	6/22/2011	6/30/2026	15,000	15,000	4.205%	4.205%					15,000		
399	2026	Fish and Wildlife	-	9/30/2018	9/30/2033	51,000	51,000	4.160%	4.160%					44,142		
400	2026	Bureau Direct	-	10/31/2010	10/31/2034	20,000	20,000	4.211%	4.211%					20,000	228	
401	2026	Bureau Direct	-	8/12/2011	8/31/2037	30,000	30,000	4.208%	4.208%					30,000	167	
402	2026	Bureau Direct	-	7/31/2018	7/31/2038	28,000	28,000	4.320%	4.320%					28,000		
403	2026	Corps	-	7/31/2018	7/31/2039	53,000	53,000	4.350%	4.350%					53,000		
404	2026	Bonneville Dam	Corps of Engineers	9/30/2009	9/30/2059	2,744	2,744	4.375%	4.375%					2,744		
405	2026	Chief Joseph	Corps of Engineers	9/30/2009	9/30/2059	24,727	24,727	4.375%	4.375%					24,727		
406	2026	Columbia River Fish Mitigation	Corps of Engineers	9/30/2009	9/30/2059	103,203	42,600	4.375%	4.375%					42,600		
407	2026	Cougar	Corps of Engineers	9/30/2009	9/30/2059	121	121	4.375%	4.375%					121		
408	2026	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2009	9/30/2059	1,540	1,540	4.375%	4.375%					1,540		
409	2026	Little Goose	Corps of Engineers	9/30/2010	9/30/2060	30	30	4.250%	4.250%					30		
410	2026	Lower Granite	Corps of Engineers	9/30/2010	9/30/2060	1,156	1,156	4.250%	4.250%					1,156		
411	2026	Albeni Falls	Corps of Engineers	9/30/2010	9/30/2060	42	42	4.250%	4.250%					42		
412	2026	Bonneville Dam	Corps of Engineers	9/30/2010	9/30/2060	1,425	1,425	4.250%	4.250%					1,425		
413	2026	Columbia Basin	Bureau of Reclamation	9/30/2010	9/30/2060	877	877	4.250%	4.250%					877		
414	2026	Columbia River Fish Mitigation	Corps of Engineers	9/30/2010	9/30/2060	56,832	56,832	4.250%	4.250%					56,832		
415	2026	Cougar	Corps of Engineers	9/30/2010	9/30/2060	59	59	4.250%	4.250%					59		
416	2026	Hungry Horse Dam	Bureau of Reclamation	9/30/2010	9/30/2060	779	779	4.250%	4.250%					779		
417	2026	Ice Harbor	Corps of Engineers	9/30/2010	9/30/2060	207	207	4.250%	4.250%					207		
418	2026	John Day	Corps of Engineers	9/30/2010	9/30/2060	356	356	4.250%	4.250%					356		
419	2026	Libby	Corps of Engineers	9/30/2010	9/30/2060	40	40	4.250%	4.250%					40		
420	2026	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2010	9/30/2060	6	6	4.250%	4.250%					6		
421		**FY 2026 Subtotal:**	-	-	-	**430,143**	**369,541**							**362,683**	**396**	
422	2027	Bureau Direct	-	1/16/2014	12/31/2018	26,000	26,000	1.943%	4.136%	Global	12/31/2018	12/31/2029	4.136%	26,000	416	
423	2027	Bureau Direct	-	1/16/2014	12/31/2018	21,000	21,000	1.943%	4.136%	Global	12/31/2018	12/31/2029	4.136%	21,000	336	
424	2027	Bureau Direct	-	1/16/2014	12/31/2018	14,000	14,000	1.943%	4.136%	Global	12/31/2018	12/31/2029	4.136%	14,000	224	
425	2027	Bureau Direct	-	40209	43496	10,000	10,000	3.714	4.136	Global	1/31/2019	1/31/2030	4.136%	10,000	160	
426	2027	Bureau Direct	-	9/30/2009	9/30/2019	25,000	25,000	3.699%	4.136%	Global	9/30/2019	9/30/2030	4.136%	25,000	453	
427	2027	Bureau Direct	-	6/30/2010	6/30/2020	10,000	10,000	3.243%	4.136%	Global	6/30/2020	6/30/2031	4.136%	10,000	180	
428	2027	Bureau Direct	-	6/30/2010	6/30/2020	30,000	30,000	3.243%	4.136%	Global	6/30/2020	6/30/2031	4.136%	30,000	541	
429	2027	Bureau Direct	-	11/20/2013	9/30/2020	51,000	51,000	2.473%	4.136%	Global	9/30/2020	9/30/2031	4.136%	51,000	920	
430	2027	Bureau Direct	-	4/30/2009	4/30/2023	25,000	25,000	4.391%	4.052%	Global	4/30/2023	4/30/2032	4.052%	25,000	273	
431	2027	Fish and Wildlife	-	10/31/2013	12/31/2026	28,000	28,000	3.717%	3.717%					28,000		
432	2027	Conservation	-	11/30/2014	3/31/2027	6,000	6,000	0.519%	0.519%					6,000		
433	2027	Fish and Wildlife	-	5/31/2014	4/30/2027	11,000	11,000	0.483%	0.483%					11,000		
434	2027	Fish and Wildlife	-	11/30/2013	5/31/2027	5,000	5,000	0.577%	0.577%					5,000		
435	2027	Fish and Wildlife	-	10/31/2013	5/31/2027	11,000	11,000	3.762%	3.762%					11,000		
436	2027	Fish and Wildlife	-	9/30/2018	9/30/2033	51,000	6,858	4.160%	4.160%					6,858		
437	2027	Corps	-	8/31/2017	8/31/2035	55,000	55,000	3.930%	3.930%					35,525		
438	2027	Bureau Direct	-	9/30/2017	9/30/2036	16,000	16,000	3.970%	3.970%					16,000		
439	2027	Corps	-	9/30/2017	9/30/2037	55,000	55,000	4.010%	4.010%					55,000		
440		**FY 2027 Subtotal:**	-	-	-	**450,000**	**405,858**							**386,382**	**3,504**	
441	2028	Fish and Wildlife	-	11/20/2013	9/30/2023	23,000	23,000	3.375%	3.831%	Global	9/30/2023	9/30/2028	3.831%	23,000		
442	2028	Conservation	-	10/31/2015	10/31/2027	25,000	25,000	0.483%	0.483%					25,000		
443	2028	Fish and Wildlife	-	3/31/2015	3/31/2028	3,000	3,000	2.511%	2.511%					3,000		
444	2028	Fish and Wildlife	-	1/31/2014	1/31/2029	7,000	7,000	3.896%	3.896%					7,000	28	
445	2028	Bureau Direct	-	7/31/2017	7/31/2032	16,000	16,000	3.810%	3.810%					16,000		
446	2028	Fish and Wildlife	-	9/30/2017	9/30/2032	45,000	45,000	3.810%	3.810%					8,693		
447	2028	Corps	-	7/31/2017	7/31/2033	55,000	55,000	3.850%	3.850%					55,000		
448	2028	Bureau Direct	-	8/31/2017	8/31/2034	16,000	16,000	3.890%	3.890%					16,000		
449	2028	Corps	-	8/31/2017	8/31/2035	55,000	19,475	3.930%	3.930%					19,475		
450	2028	Columbia Basin	Bureau of Reclamation	9/30/2014	9/30/2064	19	19	3.875%	3.875%					19		
451	2028	Cougar	Corps of Engineers	9/30/2014	9/30/2064	12	12	3.875%	3.875%					12		

TABLE 11D:
Application of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
452	2028	Hungry Horse Dam	Bureau of Reclamation	9/30/2014	9/30/2064	12	12	3.875%	3.875%					12		
453	2028	Bonneville Dam	Corps of Engineers	9/30/2014	9/30/2064	0	0	3.875%	3.875%					0		
454	2028	Columbia River Fish Mitigation	Corps of Engineers	9/30/2014	9/30/2064	110,071	110,071	3.875%	3.875%					110,071		
455	2028	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2014	9/30/2064	18	18	3.875%	3.875%					18		
456	2028	Green Peter/Foster	Corps of Engineers	9/30/2014	9/30/2064	385	385	3.875%	3.875%					385		
457	2028	Lower Granite	Corps of Engineers	9/30/2014	9/30/2064	2,644	2,644	3.875%	3.875%					2,644		
458	2028	Lower Monument	Corps of Engineers	9/30/2014	9/30/2064	1,430	1,430	3.875%	3.875%					1,430		
459	2028	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2014	9/30/2064	222	222	3.875%	3.875%					222		
460	2028	McNary	Corps of Engineers	9/30/2014	9/30/2064	759	759	3.875%	3.875%					759		
461	2028	Columbia River Fish Mitigation	Corps of Engineers	9/30/2018	9/30/2068	81,269	81,269	3.930%	3.930%					81,269		
462		**FY 2028 Subtotal:**	**-**	**-**	**-**	**441,841**	**406,316**							**370,009**	**28**	
463	2029	Fish and Wildlife	-	10/31/2013	10/31/2028	22,000	22,000	3.880%	3.880%					22,000		
464	2029	Fish and Wildlife	-	10/31/2014	1/31/2029	15,000	15,000	0.505%	0.505%					15,000		
465	2029	Fish and Wildlife	-	4/30/2014	2/28/2029	7,000	7,000	0.515%	0.515%					7,000		
466	2029	Fish and Wildlife	-	8/31/2014	7/31/2029	5,000	5,000	0.505%	0.505%					5,000		
467	2029	Fish and Wildlife	-	9/30/2017	9/30/2032	45,000	36,307	3.810%	3.810%					36,307		
468	2029	Bureau Direct	-	9/30/2015	9/30/2033	10,000	10,000	3.134%	3.134%					9,757		243
469	2029	Corps	-	9/30/2015	9/30/2033	4,000	4,000	3.134%	3.134%					3,903		97
470	2029	Hungry Horse Dam	Bureau of Reclamation	9/30/2011	9/30/2061	503	503	3.750%	3.750%					503		
471	2029	Bonneville Dam	Corps of Engineers	9/30/2011	9/30/2061	10,962	10,962	3.750%	3.750%					10,962		
472	2029	Chief Joseph	Corps of Engineers	9/30/2011	9/30/2061	4	4	3.750%	3.750%					4		
473	2029	Columbia Basin	Bureau of Reclamation	9/30/2011	9/30/2061	1,723	1,723	3.750%	3.750%					1,723		
474	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2011	9/30/2061	106,014	106,014	3.750%	3.750%					106,014		
475	2029	Cougar	Corps of Engineers	9/30/2011	9/30/2061	282	282	3.750%	3.750%					282		
476	2029	Green Peter/Foster	Corps of Engineers	9/30/2011	9/30/2061	87	87	3.750%	3.750%					87		
477	2029	Hills Creek	Corps of Engineers	9/30/2011	9/30/2061	12	12	3.750%	3.750%					12		
478	2029	Ice Harbor	Corps of Engineers	9/30/2011	9/30/2061	819	819	3.750%	3.750%					819		
479	2029	John Day	Corps of Engineers	9/30/2011	9/30/2061	175	175	3.750%	3.750%					175		
480	2029	Libby	Corps of Engineers	9/30/2011	9/30/2061	152	152	3.750%	3.750%					152		
481	2029	Lookout Dam	Corps of Engineers	9/30/2011	9/30/2061	17	17	3.750%	3.750%					17		
482	2029	Lost Creek	Corps of Engineers	9/30/2011	9/30/2061	7	7	3.750%	3.750%					7		
483	2029	Lower Granite	Corps of Engineers	9/30/2011	9/30/2061	8	8	3.750%	3.750%					8		
484	2029	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2011	9/30/2061	122	122	3.750%	3.750%					122		
485	2029	McNary	Corps of Engineers	9/30/2011	9/30/2061	565	565	3.750%	3.750%					565		
486	2029	Cougar	Corps of Engineers	9/30/2012	9/30/2062	139	139	3.375%	3.375%					139		
487	2029	Hungry Horse Dam	Bureau of Reclamation	9/30/2012	9/30/2062	3	3	3.375%	3.375%					3		
488	2029	Minidoka/Palisades	Bureau of Reclamation	9/30/2012	9/30/2062	7	7	3.375%	3.375%					7		
489	2029	Green Peter/Foster	Corps of Engineers	9/30/2012	9/30/2062	28	28	3.375%	3.375%					28		
490	2029	Chief Joseph	Corps of Engineers	9/30/2012	9/30/2062	28	28	3.375%	3.375%					28		
491	2029	Columbia Basin	Bureau of Reclamation	9/30/2012	9/30/2062	11	11	3.375%	3.375%					11		
492	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2012	9/30/2062	101,616	101,616	3.375%	3.375%					101,616		
493	2029	Hills Creek	Corps of Engineers	9/30/2012	9/30/2062	142	142	3.375%	3.375%					142		
494	2029	Ice Harbor	Corps of Engineers	9/30/2012	9/30/2062	115	115	3.375%	3.375%					115		
495	2029	John Day	Corps of Engineers	9/30/2012	9/30/2062	6,161	6,161	3.375%	3.375%					6,161		
496	2029	Libby	Corps of Engineers	9/30/2012	9/30/2062	16	16	3.375%	3.375%					16		
497	2029	Lookout Dam	Corps of Engineers	9/30/2012	9/30/2062	294	294	3.375%	3.375%					294		
498	2029	Lower Monument	Corps of Engineers	9/30/2012	9/30/2062	89	89	3.375%	3.375%					89		
499	2029	McNary	Corps of Engineers	9/30/2012	9/30/2062	12	11	3.375%	3.375%					11		
500	2029	RRP - Green Springs	Bureau of Reclamation	9/30/2012	9/30/2062	2	2	3.375%	3.375%					2		
501	2029	Columbia Basin	Bureau of Reclamation	9/30/2013	9/30/2063	3,083	3,083	2.875%	2.875%					3,083		
502	2029	Columbia River Fish Mitigation	Corps of Engineers	41547	59809	95,274	95,274	2.875	2.875					37,278		
503	2029	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2013	9/30/2063	528	528	2.875%	2.875%					528		
504	2029	John Day	Corps of Engineers	9/30/2013	9/30/2063	17	17	2.875%	2.875%					17		
505	2029	Little Goose	Corps of Engineers	9/30/2013	9/30/2063	66	66	2.875%	2.875%					66		
506	2029	McNary	Corps of Engineers	9/30/2013	9/30/2063	1,000	1,000	2.875%	2.875%					1,000		
507	2029	RRP - Green Springs	Bureau of Reclamation	9/30/2013	9/30/2063	1	1	2.875%	2.875%					1		
508	2029	Boise	Bureau of Reclamation	9/30/2015	9/30/2065	5	5	3.250%	3.250%					5		
509	2029	Bonneville Dam	Corps of Engineers	9/30/2015	9/30/2065	102	102	3.250%	3.250%					102		
510	2029	Columbia Basin	Bureau of Reclamation	9/30/2015	9/30/2065	0	0	3.250%	3.250%					0		
511	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2015	9/30/2065	64,288	64,288	3.250%	3.250%					64,288		
512	2029	Green Peter/Foster	Corps of Engineers	9/30/2015	9/30/2065	19	19	3.250%	3.250%					19		
513	2029	Hungry Horse Dam	Bureau of Reclamation	9/30/2015	9/30/2065	32	32	3.250%	3.250%					32		
514	2029	Ice Harbor	Corps of Engineers	9/30/2015	9/30/2065	3,175	3,175	3.250%	3.250%					3,175		
515	2029	John Day	Corps of Engineers	9/30/2015	9/30/2065	163	163	3.250%	3.250%					163		
516	2029	Lower Granite	Corps of Engineers	9/30/2015	9/30/2065	1,599	1,599	3.250%	3.250%					1,599		
517	2029	Minidoka/Palisades	Bureau of Reclamation	9/30/2015	9/30/2065	19,237	19,237	3.250%	3.250%					19,237		
518	2029	The Dalles	Corps of Engineers	9/30/2015	9/30/2065	456	456	3.250%	3.250%					456		
519	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2016	9/30/2066	45,326	45,326	3.000%	3.000%					45,326		
520	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2017	9/30/2067	151,772	151,772	3.680%	3.680%					151,772		
521		**FY 2029 Subtotal:**	**-**	**-**	**-**	**724,254**	**715,561**							**657,224**		**340**
522	2030	Fish and Wildlife	-	11/30/2014	3/31/2030	8,000	8,000	0.519%	0.519%					8,000		
523	2030	Corps	-	5/31/2016	5/31/2030	15,000	15,000	2.599%	2.599%					15,000		
524	2030	Bureau Direct	-	7/31/2016	7/31/2030	12,000	12,000	2.145%	2.145%					12,000		
525	2030	Bureau Direct	-	7/31/2016	7/31/2030	25,000	25,000	2.145%	2.145%					25,000		
526	2030	Fish and Wildlife	-	2/29/2016	2/28/2031	4,000	4,000	0.515%	0.515%					3,888		112
527	2030	Fish and Wildlife	-	10/31/2015	2/28/2031	4,000	4,000	0.515%	0.515%					3,888		112
528	2030	Fish and Wildlife	-	10/31/2015	3/31/2031	5,000	5,000	0.519%	0.519%					4,860		140
529	2030	Corps	-	4/30/2016	4/30/2031	53,000	53,000	2.661%	2.661%					52,579		421
530	2030	Bureau Direct	-	4/30/2016	4/30/2031	17,000	17,000	2.661%	2.661%					16,865		135
531	2030	Bureau Direct	-	9/30/2014	5/31/2032	16,000	16,000	0.577%	0.577%					15,137		863
532	2030	Bureau Direct	-	9/30/2014	5/31/2032	10,000	10,000	0.577%	0.577%					9,461		539
533	2030	Bureau Direct	-	9/30/2014	6/30/2033	11,000	11,000	0.490%	0.490%					9,973		1,027
534	2030	Bureau Direct	-	9/30/2014	6/30/2033	12,000	12,000	0.490%	0.490%					10,880		1,120
535	2030	Bureau Direct	-	9/30/2014	7/31/2033	15,000	15,000	0.505%	0.505%					13,606		1,394
536	2030	Bureau Direct	-	2/27/2012	2/28/2034	55,000	55,000	0.515%	0.515%					49,147		5,853
537	2030	Bureau Direct	-	6/30/2013	1/31/2039	35,000	35,000	0.505%	0.505%					27,615		7,385
538	2030	Corps	-	2/29/2016	2/28/2045	3,000	3,000	0.515%	0.515%					2,118		882
539	2030	Bonneville Dam	Corps of Engineers	9/30/2013	9/30/2063	268	268	2.875%	2.875%					268		
540	2030	Chief Joseph	Corps of Engineers	9/30/2013	9/30/2063	10	10	2.875%	2.875%					10		
541	2030	Columbia River Fish Mitigation	Corps of Engineers	9/30/2013	9/30/2063	95,274	57,997	2.875%	2.875%					57,997		
542	2030	Cougar	Corps of Engineers	9/30/2013	9/30/2063	4,088	4,088	2.875%	2.875%					4,088		
543	2030	Replacements	-	3/31/2019	3/31/2064	219,724	219,724	4.630%	4.630%					219,724		
544	2030	Replacements	-	3/31/2020	3/31/2065	219,724	219,724	4.630%	4.630%					27,200		
545		**FY 2030 Subtotal:**	**-**	**-**	**-**	**839,088**	**801,810**							**589,304**		**19,983**

TABLE 11D:
Application of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
546	2031	Fish and Wildlife	-	10/31/2015	3/31/2031	5,000	0	0.519%	0.519%					0		
547	2031	Corps	-	2/29/2016	2/28/2045	3,000	0	0.515%	0.515%					0		
548	2031	Replacements	-	3/31/2020	3/31/2065	219,724	192,523	4.630%	4.630%					192,523		
549	2031	Replacements	-	3/31/2021	3/31/2066	219,724	219,724	4.630%	4.630%					219,724		
550	2031	Replacements	-	3/31/2022	3/31/2067	219,724	219,724	4.630%	4.630%					219,724		
551	2031	Replacements	-	3/31/2023	3/31/2068	219,724	219,724	4.630%	4.630%					19,103		
552		**FY 2031 Subtotal:**	**-**	-	-	**886,894**	**851,694**							**651,073**		
553	2032	Replacements	-	3/31/2023	3/31/2068	219,724	200,621	4.630%	4.630%					200,621		
554	2032	Replacements	-	3/31/2024	3/31/2069	219,724	219,724	4.630%	4.630%					219,724		
555	2032	Replacements	-	3/31/2025	3/31/2070	219,724	219,724	4.630%	4.630%					219,724		
556	2032	Replacements	-	3/31/2026	3/31/2071	219,724	219,724	4.630%	4.630%					158,461		
557		**FY 2032 Subtotal:**	**-**	-	-	**878,894**	**859,791**							**798,529**		
558	2033	Replacements	-	3/31/2026	3/31/2071	219,724	61,262	4.630%	4.630%					61,262		
559	2033	Replacements	-	3/31/2027	3/31/2072	219,724	219,724	4.630%	4.630%					219,724		
560	2033	Replacements	-	3/31/2028	3/31/2073	219,724	219,724	4.630%	4.630%					219,724		
561	2033	Replacements	-	3/31/2029	3/31/2074	219,724	219,724	4.630%	4.630%					219,724		
562	2033	Replacements	-	3/31/2030	3/31/2075	219,724	219,724	4.630%	4.630%					133,935		
563		**FY 2033 Subtotal:**	**-**	-	-	**1,098,618**	**940,156**							**854,368**		
564	2034	Replacements	-	3/31/2030	3/31/2075	219,724	85,788	4.630%	4.630%					85,788		
565	2034	Replacements	-	47938	64375	219,724	219,724	4.63	4.63					219,724		
566	2034	Replacements	-	3/31/2032	3/31/2077	219,724	219,724	4.630%	4.630%					219,724		
567	2034	Replacements	-	3/31/2033	3/31/2078	219,724	219,724	4.630%	4.630%					219,724		
568		**FY 2034 Subtotal:**	**-**	-	-	**878,894**	**744,959**							**744,959**		
569	2035	Replacements	-	3/31/2034	3/31/2079	219,724	219,724	4.630%	4.630%					219,724		
570		**FY 2035 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
571	2036	Replacements	-	3/31/2035	3/31/2080	219,724	219,724	4.630%	4.630%					219,724		
572		**FY 2036 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
573	2037	Replacements	-	3/31/2036	3/31/2081	219,724	219,724	4.630%	4.630%					219,724		
574		**FY 2037 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
575	2038	Replacements	-	3/31/2037	3/31/2082	219,724	219,724	4.630%	4.630%					219,724		
576		**FY 2038 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
577	2039	Replacements	-	3/31/2038	3/31/2083	219,724	219,724	4.630%	4.630%					219,724		
578		**FY 2039 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
579	2040	Replacements	-	3/31/2039	3/31/2084	219,724	219,724	4.630%	4.630%					219,724		
580		**FY 2040 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
581	2041	Replacements	-	51226	67662	219,724	219,724	4.63	4.63					219,724		
582		**FY 2041 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
583	2042	Replacements	-	3/31/2041	3/31/2086	219,724	219,724	4.630%	4.630%					219,724		
584		**FY 2042 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
585	2043	Replacements	-	3/31/2042	3/31/2087	219,724	219,724	4.630%	4.630%					219,724		
586		**FY 2043 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
587	2044	Replacements	-	52321	68758	219,724	219,724	4.63	4.63					219,724		
588		**FY 2044 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
589	2045	Replacements	-	3/31/2044	3/31/2089	219,724	219,724	4.630%	4.630%					219,724		
590		**FY 2045 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
591	2046	Replacements	-	3/31/2045	3/31/2090	219,724	219,724	4.630%	4.630%					219,724		
592		**FY 2046 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
593	2047	Replacements	-	53417	69853	219,724	219,724	4.63	4.63					219,724		
594		**FY 2047 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
595	2048	Replacements	-	3/31/2047	3/31/2092	219,724	219,724	4.630%	4.630%					219,724		
596		**FY 2048 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
597	2049	Replacements	-	3/31/2048	3/31/2093	219,724	219,724	4.630%	4.630%					219,724		
598		**FY 2049 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
599	2050	Replacements	-	3/31/2049	3/31/2094	219,724	219,724	4.630%	4.630%					219,724		
600		**FY 2050 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
601	2051	Replacements	-	3/31/2050	3/31/2095	219,724	219,724	4.630%	4.630%					219,724		
602		**FY 2051 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
603	2052	Replacements	-	3/31/2051	3/31/2096	219,724	219,724	4.630%	4.630%					219,724		
604		**FY 2052 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
605	2053	Replacements	-	3/31/2052	3/31/2097	219,724	219,724	4.630%	4.630%					219,724		
606		**FY 2053 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
607	2054	Replacements	-	3/31/2053	3/31/2098	219,724	219,724	4.630%	4.630%					219,724		
608		**FY 2054 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
609	2055	Replacements	-	3/31/2054	3/31/2099	219,724	219,724	4.630%	4.630%					219,724		
610		**FY 2055 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
611	2056	Replacements	-	3/31/2055	3/31/2100	219,724	219,724	4.630%	4.630%					219,724		
612		**FY 2056 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
613	2057	Replacements	-	3/31/2056	3/31/2101	219,724	219,724	4.630%	4.630%					219,724		
614		**FY 2057 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
615	2058	Boise	Bureau of Reclamation	9/30/2008	9/30/2058	64	64	4.875%	4.875%					64		
616	2058	Bonneville Dam	Corps of Engineers	39721	57983	14,609	14,609	4.875	4.875					14,609		
617	2058	Columbia River Fish Mitigation	Corps of Engineers	9/30/2008	9/30/2058	36,554	36,554	4.875%	4.875%					36,554		
618	2058	Dworshak	Corps of Engineers	39721	57983	10	10	4.875	4.875					10		
619	2058	Hungry Horse Dam	Bureau of Reclamation	9/30/2008	9/30/2058	76	76	4.875%	4.875%					76		
620	2058	Ice Harbor	Corps of Engineers	39721	57983	14	14	4.875	4.875					14		
621	2058	Libby	Corps of Engineers	9/30/2008	9/30/2058	1,567	1,567	4.875%	4.875%					1,567		
622	2058	Little Goose	Corps of Engineers	39721	57983	13	13	4.875	4.875					13		
623	2058	Lower Granite	Corps of Engineers	9/30/2008	9/30/2058	24	24	4.875%	4.875%					24		
624	2058	Lower Monument	Corps of Engineers	39721	57983	9	9	4.875	4.875					9		
625	2058	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2008	9/30/2058	74	74	4.875%	4.875%					74		
626	2058	McNary	Corps of Engineers	9/30/2008	9/30/2058	215	215	4.875%	4.875%					215		
627	2058	The Dalles	Corps of Engineers	39721	57983	1,651	1,651	4.875	4.875					1,651		
628	2058	Chief Joseph	Corps of Engineers	9/30/2008	9/30/2058	3,500	3,500	4.875%	4.875%					3,500		
629	2058	Columbia Basin	Bureau of Reclamation	9/30/2008	9/30/2058	835	835	4.875%	4.875%					835		
630	2058	Replacements	-	57435	73870	219,724	219,724	4.63	4.63					219,724		
631		**FY 2058 Subtotal:**	**-**	-	-	**278,939**	**278,939**							**278,939**		
632	2059	Albeni Falls	Corps of Engineers	9/30/2009	9/30/2059	57	57	4.375%	4.375%					57		
633	2059	Columbia Basin	Bureau of Reclamation	40086	58348	1,338	1,338	4.375	4.375					1,338		
634	2059	Hungry Horse Dam	Bureau of Reclamation	9/30/2009	9/30/2059	60	60	4.375%	4.375%					60		
635	2059	John Day	Corps of Engineers	9/30/2009	9/30/2059	1,548	1,548	4.375%	4.375%					1,548		
636	2059	Yakima Chandler/Kenniwick	Bureau of Reclamation	40086	58348	15	15	4.375	4.375					15		
637	2059	Replacements	-	3/31/2058	3/31/2103	219,724	219,724	4.630%	4.630%					219,724		
638		**FY 2059 Subtotal:**	**-**	-	-	**222,742**	**222,742**							**222,742**		
639	2060	Replacements	-	58165	74601	219,724	219,724	4.63	4.63					219,724		
640		**FY 2060 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
641	2061	Replacements	-	3/31/2060	3/31/2105	219,724	219,724	4.630%	4.630%					219,724		
642		**FY 2061 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
643	2062	Replacements	-	3/31/2061	3/31/2106	219,724	219,724	4.630%	4.630%					219,724		
644		**FY 2062 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
645	2063	Replacements	-	59261	75696	219,724	219,724	4.63	4.63					219,724		
646		**FY 2063 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
647	2064	Replacements	-	3/31/2063	3/31/2108	219,724	219,724	4.630%	4.630%					219,724		
648		**FY 2064 Subtotal:**	**-**	-	-	**219,724**	**219,724**	**-**						**219,724**		
649	2065	Replacements	-	3/31/2064	3/31/2109	219,724	219,724	4.630%	4.630%					219,724		
650		**FY 2065 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
651	2066	Replacements	-	60357	76792	219,724	219,724	4.63	4.63					219,724		
652		**FY 2066 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
653	2067	Replacements	-	60722	77157	219,724	219,724	4.63	4.63					219,724		
654		**FY 2067 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
655	2068	Replacements	-	3/31/2067	3/31/2112	219,724	219,724	4.630%	4.630%					219,724		
656		**FY 2068 Subtotal:**	**-**	-	-	**219,724**	**219,724**							**219,724**		
657	**Grand Total**					**18,834,962**	**18,015,900**	**-**						**16,867,007**	**17,684**	**20,322**

TABLE 11E:
Summary of Interest
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

Obligation Type	General Project	Specific Project	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Appropriation	**Bureau of Reclamation**	Boise	295	295	295	295	54	54	54	4	4	3	3	3	3	3	3	3
		Columbia Basin	5,577	5,551	5,551	5,355	5,056	988	988	380	380	291	291	254	254	253	99	99
		Columbia Basin 3rd Powerhouse	25,876	3,120	903	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hungry Horse Dam	834	710	710	267	258	226	226	60	60	60	60	27	27	26	6	6
		Minidoka/Palisades	4,268	4,268	4,268	4,268	628	625	625	625	625	625	625	625	625	625	-	-
		RRP - Green Springs	655	655	655	655	655										-	-
		Yakima Chandler/Kenniwick	43	43	43	43	43	43	1	1	1	1	1	1	1	1	1	1
		Yakima Roza	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
		Bureau of Reclamation Subtotal:	37,548	14,643	12,426	10,884	6,695	1,937	1,895	1,070	1,070	980	980	910	910	909	109	109
	Corps of Engineers	Albeni Falls	208	208	208	97	29	29	29	4	4	4	4	2	2	2	2	2
		Bonneville 2nd Powerhouse	26,226	1,198	705	27	-	-	-	-	-	-	-	-	-	-	-	-
		Bonneville Dam	8,323	7,164	7,164	7,086	5,782	4,172	2,500	1,433	1,433	1,315	1,315	1,134	1,134	1,134	720	712
		Chief Joseph	16,243	1,895	1,895	1,450	1,325	1,305	1,254	1,254	1,254	1,254	1,254	172	172	172	171	171
		Columbia River Fish Mitigation	61,273	62,632	68,217	68,603	65,550	63,906	57,181	51,838	46,320	35,350	32,699	28,420	28,420	20,961	3,449	1,782
		Cougar	765	765	765	765	763	763	569	146	146	141	141	133	133	133	118	-
		Detroit Lake/Big Cliff	100	100	100	98	98	80	69	16	16	16	16	16	16	15	-	-
		Dworshak	890	860	860	776	230	185	146	110	110	107						
		Green Peter/Foster	33	33	33	33	31	20	20	20	20	20	20	20	20	5	-	-
		Hills Creek	171	171	171	171	8	8	8	5	5	5	5	5	5	5	-	-
		Ice Harbor	910	905	878	878	840	264	262	262	262	262	147	138	138	138	1	1
		John Day	1,653	1,653	1,639	1,046	864	487	487	330	303	303	303	288	288	288	68	68
		Libby	1,537	1,515	458	458	411	84	84	84	84	84	84	83	83	83	76	76
		Little Goose	4,410	862	776	776	426	150	143	143	143	143	4	3	3	3	1	1
		Lookout Dam	740	740	740	735	423	423	416	11	11	11	11	11	11	11	-	-
		Lost Creek	900	17	17	11	9										-	-
		Lower Granite	3,833	804	804	804	710	475	473	453	453	453	205	156	156	53	1	1
		Lower Monument	3,662	736	717	582	581	202	201	174	161	161	59	59	59	3		
		McNary	746	744	744	743	698	307	302	274	90	90	90	90	90	61	10	10
		The Dalles	2,418	2,418	2,418	2,418	2,117	2,040	1,550	187	95	95	95	95	95	95	80	80
		Corps of Engineers Subtotal:	135,043	85,422	89,312	87,557	80,896	74,900	65,693	56,743	50,910	39,814	36,453	30,826	30,826	23,163	4,699	2,906
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	16,534	15,857	3,872	1,301	187	107	102	101	84	84	84	17	17	8	4	4
		Lower Snake Fish & Wildlife Subtotal:	16,534	15,857	3,872	1,301	187	107	102	101	84	84	84	17	17	8	4	4
	Appropriation Subtotal:		189,125	115,921	105,610	99,742	87,778	76,944	67,689	57,914	52,065	40,878	37,518	31,752	31,752	24,080	4,812	3,019
Treasury	**BPA Borrowing**	(Less Interest Income)	(1,990)	(1,327)	(1,228)	(2,179)	(1,986)	(2,051)	(2,014)	(2,017)	(1,988)	(1,924)	(1,941)	(1,953)	(1,905)	(3,035)	(2,662)	(2,896)
		Bureau Direct	28,376	29,622	31,487	34,620	32,789	29,668	24,522	20,404	18,747	17,512	15,045	8,785	2,971	2,200	1,719	-
		Interest Accrual	5,616	5,769	6,072	5,650	4,635	4,145	3,673	2,908	2,908	2,805	2,149	616	463	463	-	-
		Interest Accrual Reversal	(5,297)	(5,616)	(5,769)	(6,072)	(5,650)	(4,635)	(4,145)	(3,673)	(2,908)	(2,908)	(2,805)	(2,149)	(616)	(463)	(463)	-
		Conservation	9,052	9,050	8,937	8,887	8,887	8,887	8,409	7,289	2,538	1,883	849	136	60	-	-	-
		Interest Accrual	2,025	1,983	1,967	1,967	1,967	1,887	1,829	882	658	583	50	50	-	-	-	-
		Interest Accrual Reversal	(1,975)	(2,025)	(1,983)	(1,967)	(1,967)	(1,967)	(1,887)	(1,829)	(882)	(658)	(583)	(50)	(50)	-	-	-
		Construction (AS)	715	693	716	907	735	538	419	384	220	-	-	-	-	-	-	-
		Interest Accrual	189	171	171	151	58	24	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	(169)	(189)	(171)	(171)	(151)	(58)	(24)	-	-	-	-	-	-	-	-	-
		Corps	133	1,941	8,419	15,380	15,380	15,380	15,380	15,380	15,177	12,846	9,572	6,619	3,380	1,878	1,808	-
		Interest Accrual	717	1,249	1,827	1,827	1,827	1,827	1,827	1,827	1,827	1,630	1,249	1,131	717	717	-	-
		Interest Accrual Reversal	-	(717)	(1,249)	(1,827)	(1,827)	(1,827)	(1,827)	(1,827)	(1,827)	(1,827)	(1,630)	(1,249)	(1,131)	(717)	(717)	-
		Fish and Wildlife	10,814	10,830	12,544	14,137	13,080	13,080	13,080	11,656	11,257	9,770	7,414	5,202	3,703	1,308	54	-
		Interest Accrual	1,985	1,985	1,985	1,676	1,676	1,676	1,676	1,448	1,433	1,011	853	422	377	3	-	-
		Interest Accrual Reversal	(1,982)	(1,985)	(1,985)	(1,985)	(1,676)	(1,676)	(1,676)	(1,676)	(1,448)	(1,433)	(1,011)	(853)	(422)	(377)	(3)	-
		Technology (G)	537	544	694	876	876	619	362	182	-	-	-	-	-	-	-	-
		Interest Accrual	90	90	90	90	90	5	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	(85)	(90)	(90)	(90)	(90)	(90)	(5)	-	-	-	-	-	-	-	-	-
		BPA Borrowing Subtotal:	48,751	51,977	62,435	71,877	68,652	65,433	59,598	51,339	45,711	39,288	29,211	16,707	7,548	1,978	(264)	(2,896)
	Federal Generation Replacements	Replacements	-	-	-	5,087	15,260	25,433	35,606	45,779	55,953	66,126	76,299	86,472	96,645	106,819	111,275	100,660
		Federal Generation Replacements Subtotal:	-	-	-	5,087	15,260	25,433	35,606	45,779	55,953	66,126	76,299	86,472	96,645	106,819	111,275	100,660
	Treasury Subtotal:		48,751	51,977	62,435	76,964	83,912	90,866	95,204	97,118	101,664	105,414	105,510	103,179	104,193	108,797	111,012	97,764
Grand Total:			**$237,876**	**$167,898**	**$168,045**	**$176,706**	**$171,690**	**$167,810**	**$162,893**	**$155,033**	**$153,729**	**$146,293**	**$143,028**	**$134,931**	**$135,946**	**$132,877**	**$115,823**	**$100,783**

TABLE 11E:
Summary of Interest
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

Obligation Type	General Project	Specific Project	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Appropriation	**Bureau of Reclamation**	Boise	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		Columbia Basin	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
		Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hungry Horse Dam	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
		Minidoka/Palisades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		RRP - Green Springs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Yakima Chandler/Kenniwick	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bureau of Reclamation Subtotal:	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109
	Corps of Engineers	Albeni Falls	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bonneville Dam	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712
		Chief Joseph	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
		Columbia River Fish Mitigation	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782
		Cougar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Detroit Lake/Big Cliff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Dworshak																						
		Green Peter/Foster	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hills Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ice Harbor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		John Day	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
		Libby	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
		Little Goose	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Lookout Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Lost Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Lower Granite	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Lower Monument																						
		McNary	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
		The Dalles	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
		Corps of Engineers Subtotal:	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Lower Snake Fish & Wildlife Subtotal:	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Appropriation Subtotal:		3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019
Treasury	**BPA Borrowing**	(Less Interest Income)	(3,403)	(3,589)	(3,629)	(3,678)	(3,678)	(3,681)	(3,722)	(3,854)	(3,864)	(3,892)	(3,892)	(3,892)	(3,411)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)
		Bureau Direct	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Conservation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Construction (AS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Corps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Fish and Wildlife	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Technology (G)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BPA Borrowing Subtotal:	(3,403)	(3,589)	(3,629)	(3,678)	(3,678)	(3,681)	(3,722)	(3,854)	(3,864)	(3,892)	(3,892)	(3,892)	(3,411)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)
	Federal Generation Replacements	Replacements	77,275	49,184	22,332	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173
		Federal Generation Replacements Subtotal:	77,275	49,184	22,332	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173
	Treasury Subtotal:		73,872	45,595	18,704	6,495	6,495	6,492	6,451	6,319	6,310	6,281	6,281	6,281	6,762	8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192
Grand Total:			**$76,891**	**$48,614**	**$21,723**	**$9,514**	**$9,514**	**$9,511**	**$9,470**	**$9,338**	**$9,329**	**$9,300**	**$9,300**	**$9,300**	**$9,781**	**$11,211**	**$11,211**	**$11,211**	**$11,211**	**$11,211**	**$11,211**	**$11,211**	**$11,211**	**$11,211**

TABLE 11E:
Summary of Interest
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

Obligation Type	General Project	Specific Project	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	Total
Appropriation	**Bureau of Reclamation**	Boise	3	3	3	3	3	-	-	-	-	-	-	-	-	-	-	1,456
		Columbia Basin	99	99	99	99	99	59	-	-	-	-	-	-	-	-	-	34,104
		Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29,899
		Hungry Horse Dam	6	6	6	6	6	3	-	-	-	-	-	-	-	-	-	3,738
		Minidoka/Palisades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,329
		RRP - Green Springs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,275
		Yakima Chandler/Kenniwick	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	286
		Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
		Bureau of Reclamation Subtotal:	109	109	109	109	109	62	-	-	-	-	-	-	-	-	-	96,090
	Corps of Engineers	Albeni Falls	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	908
		Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28,157
		Bonneville Dam	712	712	712	712	712	-	-	-	-	-	-	-	-	-	-	71,752
		Chief Joseph	171	171	171	171	171	-	-	-	-	-	-	-	-	-	-	35,846
		Columbia River Fish Mitigation	1,782	1,782	1,782	1,782	1,782	-	-	-	-	-	-	-	-	-	-	744,715
		Cougar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,247
		Detroit Lake/Big Cliff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	756
		Dworshak						-	-	-	-	-	-	-	-	-	-	4,290
		Green Peter/Foster	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	328
		Hills Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745
		Ice Harbor	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	6,305
		John Day	68	68	68	68	68	68	-	-	-	-	-	-	-	-	-	11,963
		Libby	76	76	76	76	76	-	-	-	-	-	-	-	-	-	-	7,348
		Little Goose	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	8,001
		Lookout Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,293
		Lost Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	957
		Lower Granite	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	9,869
		Lower Monument						-	-	-	-	-	-	-	-	-	-	7,370
		McNary	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	5,373
		The Dalles	80	80	80	80	80	-	-	-	-	-	-	-	-	-	-	18,470
		Corps of Engineers Subtotal:	2,906	2,906	2,906	2,906	2,906	70	-	-	-	-	-	-	-	-	-	973,690
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38,461
		Lower Snake Fish & Wildlife Subtotal:	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	38,461
	Appropriation Subtotal:		3,019	3,019	3,019	3,019	3,019	132	-	-	-	-	-	-	-	-	-	1,108,241
Treasury	**BPA Borrowing**	(Less Interest Income)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(128,828)
		Bureau Direct	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	298,467
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47,872
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(53,169)
		Conservation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74,865
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,850
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(17,825)
		Construction (AS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,328
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	763
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(933)
		Corps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	138,674
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20,202
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(20,202)
		Fish and Wildlife	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137,928
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18,210
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(20,192)
		Technology (G)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,690
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	454
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(539)
		BPA Borrowing Subtotal:	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	(1,981)	521,615
	Federal Generation Replacements	Replacements	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	1,322,094
		Federal Generation Replacements Subtotal:	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	10,173	1,322,094
	Treasury Subtotal:		8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192	8,192	1,843,708
Grand Total:			**$11,211**	**$11,211**	**$11,211**	**$11,211**	**$11,211**	**$8,324**	**$8,192**	**$8,192**	**$8,192**	**$8,192**	**$8,192**	**$8,192**	**$8,192**	**$8,192**	**$8,192**	**$2,951,949**

TABLE 11F:
Summary of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

Obligation Type	General Project	Specific Project	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Appropriation	**Bureau of Reclamation**	Boise	-	-	-	3,365	-	-	979	-	15	2	-	-	-	5	-
		Columbia Basin	360	-	2,740	4,187	69,226	-	11,891	-	1,987	-	877	-	19	4,816	-
		Columbia Basin 3rd Powerhouse	318,259	31,007	12,631	-	-	-	-	-	-	-	-	-	-	-	-
		Hungry Horse Dam	1,731	-	6,190	128	552	-	3,245	-	-	-	779	-	12	537	-
		Minidoka/Palisades	-	-	-	50,911	42	-	-	-	-	-	-	-	-	19,244	-
		RRP - Green Springs	-	-	-	-	11,145	-	-	-	-	-	-	-	-	3	-
		Yakima Chandler/Kenniwick	-	-	-	-	-	833	-	-	-	-	-	-	-	-	-
		Yakima Roza	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-
		Bureau of Reclamation Subtotal:	320,350	31,007	21,561	58,591	80,980	833	16,115	-	2,002	2	1,656	-	31	24,605	-
	Corps of Engineers	Albeni Falls	-	-	1,562	948	-	-	481	-	-	-	42	-	-	-	-
		Bonneville 2nd Powerhouse	350,037	6,892	9,491	376	-	-	-	-	-	-	-	-	-	-	-
		Bonneville Dam	16,210	-	1,093	20,816	28,800	31,322	20,849	-	2,628	-	4,169	-		11,064	268
		Chief Joseph	200,678	-	6,222	1,748	347	992	-	-	-	-	24,727	-	-	31	10
		Columbia River Fish Mitigation	-	-	39,282	49,437	29,812	128,288	105,564	122,612	243,782	60,603	99,432	-	191,340	506,293	57,997
		Cougar	-	-	-	26	-	3,622	8,250	-	109	-	180	-	12	421	4,088
		Detroit Lake/Big Cliff	-	-	38	-	301	223	1,031	-	-	-	-	-	18	528	-
		Dworshak	427	-	1,162	7,641	828	761	713	-	73	2,425	-	-	-	-	-
		Green Peter/Foster	-	-	-	26	200	-	-	-	-	-	-	-	385	134	-
		Hills Creek	-	-	-	2,658	9	-	46	-	-	-	-	-	-	154	-
		Ice Harbor	78	371	-	615	10,615	50	-	-	-	2,615	207	-	-	4,108	-
		John Day	-	195	8,298	2,940	6,958	-	3,060	601	-	-	356	-	-	6,517	-
		Libby	302	14,781	-	660	5,562	-	-	-	-	-	40	-	-	167	-
		Little Goose	49,625	1,200	-	4,902	4,702	146	-	-	-	3,171	30	-	-	66	-
		Lookout Dam	-	-	72	5,098	-	135	7,927	-	-	-	-	-	-	311	-
		Lost Creek	12,345	-	94	24	147	-	-	-	-	-	-	-	-	7	-
		Lower Granite	42,368	-	-	1,311	4,155	42	393	-	-	5,669	1,156	-	2,644	1,607	-
		Lower Monument	40,925	264	1,886	10	6,754	22	527	285	-	2,332	-	-	1,430	89	-
		McNary	30	-	16	619	7,184	97	550	4,080	-	-	-	-	759	1,576	-
		The Dalles	-	-	-	4,579	1,408	9,553	26,606	2,030	-	-	-	-	-	456	-
		Corps of Engineers Subtotal:	713,025	23,703	69,216	104,434	107,782	175,253	175,996	129,608	246,592	76,815	130,339	-	196,588	533,530	62,363
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	9,472	167,614	35,970	15,787	1,452	98	4	379	-	-	1,545	-	222	122	-
		Lower Snake Fish & Wildlife Subtotal:	9,472	167,614	35,970	15,787	1,452	98	4	379	-	-	1,545	-	222	122	-
	Appropriation Subtotal:		1,042,848	222,323	126,747	178,812	190,213	176,184	192,115	129,987	248,594	76,818	133,541	-	196,841	558,257	62,363
Bond	**BPA Borrowing**	**Bureau Direct**	-	-	-	105,000	120,000	122,000	97,010	66,990	-	56,000	78,000	228,000	32,000	9,757	189,685
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Conservation	-	20,000	9,000	-	-	19,000	16,000	142,000	97,000	69,000	39,000	6,000	25,000	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Construction (AS)	10,500	15,150	-	5,250	18,100	7,000	5,800	5,250	5,950	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Corps	-	-	-	-	-	-	-	-	9,099	95,901	53,000	90,525	74,475	3,903	69,698
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Fish and Wildlife	-	-	-	46,000	-	-	31,000	20,000	5,000	65,000	59,142	61,858	41,693	85,307	20,635
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Technology (G)	-	-	-	-	-	35,000	11,000	5,000	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BPA Borrowing Subtotal:	10,500	35,150	9,000	156,250	138,100	183,000	160,810	239,240	117,049	285,901	229,142	386,382	173,168	98,967	280,017
	Federal Generation Replacements	**Replacements**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	246,924
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Federal Generation Replacements Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	246,924
	Make Whole Call	Discounts	-	-	-	-	-	-	-	-	-	-	-	-	-	(340)	(19,983)
		Premiums	-	-	-	-	-	2,750	6,626	3,782	-	599	396	3,504	28	-	-
		Make Whole Call Subtotal:	-	-	-	-	-	2,750	6,626	3,782	-	599	396	3,504	28	(340)	(19,983)
	Bond Subtotal:		10,500	35,150	9,000	156,250	138,100	183,000	160,810	239,240	117,049	285,901	229,142	386,382	173,168	99,307	546,924
Irrigation	**Irrigation Assistance**	Irrigation Assistance	60,184	50,769	27,234	56,573	24,317	14,747	16,060	12,846	15,117	13,543	20,755	6,118	11,186	4,065	1,996
		Irrigation Assistance Subtotal:	60,184	50,769	27,234	56,573	24,317	14,747	16,060	12,846	15,117	13,543	20,755	6,118	11,186	4,065	1,996
	Irrigation Subtotal:		60,184	50,769	27,234	56,573	24,317	14,747	16,060	12,846	15,117	13,543	20,755	6,118	11,186	4,065	1,996
Grand Total:			$1,113,532	$308,242	$162,981	$391,635	$352,631	$373,930	$368,985	$382,073	$380,760	$376,261	$383,438	$392,501	$381,196	$661,628	$611,283

TABLE 11F:
Summary of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

Obligation Type	General Project	Specific Project	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
Appropriation	**Bureau of Reclamation**	Boise	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Columbia Basin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hungry Horse Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Minidoka/Palisades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		RRP - Green Springs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Yakima Chandler/Kenniwick	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bureau of Reclamation Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Corps of Engineers	Albeni Falls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bonneville Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Chief Joseph	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Columbia River Fish Mitigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Cougar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Detroit Lake/Big Cliff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Dworshak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Green Peter/Foster	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hills Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ice Harbor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		John Day	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Libby	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Little Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Lookout Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Lost Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Lower Granite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Lower Monument	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		McNary	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		The Dalles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Corps of Engineers Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Lower Snake Fish & Wildlife Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Appropriation Subtotal:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bond	**BPA Borrowing**	**Bureau Direct**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Conservation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Construction (AS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Corps		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Fish and Wildlife		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Technology (G)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BPA Borrowing Subtotal:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Federal Generation Replacements	**Replacements**	651,073	798,529	854,368	744,959	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Federal Generation Replacements Subtotal:	651,073	798,529	854,368	744,959	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724
	Make Whole Call	Discounts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Premiums	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Make Whole Call Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bond Subtotal:		651,073	798,529	854,368	744,959	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724
Irrigation	**Irrigation Assistance**	Irrigation Assistance	10,524	-	4,347	-	7,761	28,920	15,778	-	14,181	-	-	73,659	-	-	11,579	-	-	-	-	-	-
		Irrigation Assistance Subtotal:	10,524	-	4,347	-	7,761	28,920	15,778	-	14,181	-	-	73,659	-	-	11,579	-	-	-	-	-	-
	Irrigation Subtotal:		10,524	-	4,347	-	7,761	28,920	15,778	-	14,181	-	-	73,659	-	-	11,579	-	-	-	-	-	-
Grand Total:			$661,597	$798,529	$858,715	$744,959	$227,485	$248,644	$235,501	$219,724	$233,905	$219,724	$219,724	$293,383	$219,724	$219,724	$231,303	$219,724	$219,724	$219,724	$219,724	$219,724	$219,724

TABLE 11F:
Summary of Amortization
October 1, 2015 - September 30, 2018 Cost Evaluation Period
($000s) (FY 2018)

Obligation Type	General Project	Specific Project	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	Total
Appropriation	**Bureau of Reclamation**	Boise	-	-	-	-	-	-	64	-	-	-	-	-	-	-	-	-	-	4,429
		Columbia Basin	-	-	-	-	-	-	835	1,338	-	-	-	-	-	-	-	-	-	98,275
		Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	361,897
		Hungry Horse Dam	-	-	-	-	-	-	76	60	-	-	-	-	-	-	-	-	-	13,312
		Minidoka/Palisades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70,197
		RRP - Green Springs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,148
		Yakima Chandler/Kenniwick	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	848
		Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
		Bureau of Reclamation Subtotal:	-	-	-	-	-	-	975	1,414	-	-	-	-	-	-	-	-	-	560,121
	Corps of Engineers	Albeni Falls	-	-	-	-	-	-	-	57	-	-	-	-	-	-	-	-	-	3,090
		Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	366,796
		Bonneville Dam	-	-	-	-	-	-	14,609	-	-	-	-	-	-	-	-	-	-	151,828
		Chief Joseph	-	-	-	-	-	-	3,500	-	-	-	-	-	-	-	-	-	-	238,256
		Columbia River Fish Mitigation	-	-	-	-	-	-	36,554	-	-	-	-	-	-	-	-	-	-	1,670,997
		Cougar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16,708
		Detroit Lake/Big Cliff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,138
		Dworshak	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	14,040
		Green Peter/Foster	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745
		Hills Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,867
		Ice Harbor	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	18,673
		John Day	-	-	-	-	-	-	-	1,548	-	-	-	-	-	-	-	-	-	30,473
		Libby	-	-	-	-	-	-	1,567	-	-	-	-	-	-	-	-	-	-	23,079
		Little Goose	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	63,856
		Lookout Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,543
		Lost Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,618
		Lower Granite	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	59,370
		Lower Monument	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	54,534
		McNary	-	-	-	-	-	-	215	-	-	-	-	-	-	-	-	-	-	15,126
		The Dalles	-	-	-	-	-	-	1,651	-	-	-	-	-	-	-	-	-	-	46,282
		Corps of Engineers Subtotal:	-	-	-	-	-	-	58,167	1,605	-	-	-	-	-	-	-	-	-	2,805,017
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	-	-	-	-	-	-	74	-	-	-	-	-	-	-	-	-	-	232,739
		Lower Snake Fish & Wildlife Subtotal:	-	-	-	-	-	-	74	-	-	-	-	-	-	-	-	-	-	232,739
	Appropriation Subtotal:		-	-	-	-	-	-	59,216	3,018	-	-	-	-	-	-	-	-	-	3,597,877
Bond	**BPA Borrowing**	**Bureau Direct**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,104,442
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Conservation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	442,000
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Construction (AS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73,000
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Corps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	396,600
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Fish and Wildlife	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	435,635
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Technology (G)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51,000
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BPA Borrowing Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,502,678
	Federal Generation Replacements	**Replacements**	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	10,766,452
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Federal Generation Replacements Subtotal:	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	10,766,452
	Make Whole Call	Discounts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(20,322)
		Premiums	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17,684
		Make Whole Call Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(2,638)
	Bond Subtotal:		219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	219,724	13,289,452
Irrigation	**Irrigation Assistance**	Irrigation Assistance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502,258
		Irrigation Assistance Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502,258
	Irrigation Subtotal:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502,258
Grand Total:			$219,724	$219,724	$219,724	$219,724	$219,724	$219,724	$278,939	$222,742	$219,724	$219,724	$219,724	$219,724	$219,724	$219,724	$219,724	$219,724	$219,724	#########

12. REPAYMENT STUDY DATA, FY 2019 STUDY

TABLE 12A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2019 Cost Evaluation period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1	Albeni Falls	09/1955	09/2005	6.910%	25,494	0		
2	Albeni Falls	09/1956	09/2005	6.910%	11	0		
3	Albeni Falls	09/1957	09/2005	6.910%	10	0		
4	Albeni Falls	09/1958	09/2005	6.910%	11	0		
5	Albeni Falls	09/1959	09/2005	6.910%	11	0		
6	Albeni Falls	09/1960	09/2005	6.910%	10	0		
7	Albeni Falls	09/1961	09/2005	6.910%	11	0		
8	Albeni Falls	09/1962	09/2005	6.910%	11	0		
9	Albeni Falls	09/1963	09/2005	6.910%	10	0		
10	Albeni Falls	09/1964	09/2005	6.910%	11	0		
11	Albeni Falls	09/1965	09/2005	6.910%	11	0		
12	Albeni Falls	09/1966	09/2005	6.910%	10	0		
13	Albeni Falls	09/1967	09/2005	6.910%	11	0		
14	Albeni Falls	09/1968	09/2005	6.910%	11	0		
15	Albeni Falls	09/1969	09/2005	6.910%	10	0		
16	Albeni Falls	09/1970	09/2005	6.910%	11	0		
17	Albeni Falls	09/1971	09/2005	6.910%	11	0		
18	Albeni Falls	09/1972	09/2005	6.910%	10	0		
19	Albeni Falls	09/1973	09/2005	6.910%	11	0		
20	Albeni Falls	09/1974	09/2005	6.910%	11	0		
21	Albeni Falls	09/1975	09/2005	6.910%	10	0		
22	Albeni Falls	09/1976	09/2005	6.910%	11	0		
23	Albeni Falls	09/1977	09/2005	6.910%	11	0		
24	Albeni Falls	09/1978	09/2005	6.910%	10	0		
25	Albeni Falls	09/1979	09/2005	6.910%	11	0		
26	Albeni Falls	09/1980	09/2005	6.910%	11	0		
27	Albeni Falls	09/1981	09/2005	6.910%	10	0		
28	Albeni Falls	09/1982	09/2005	6.910%	11	0		
29	Albeni Falls	09/1983	09/2005	6.910%	11	0		
30	Albeni Falls	09/1985	09/2005	6.910%	7	0		
31	Albeni Falls	09/1986	09/2005	6.910%	293	0		
32	Albeni Falls	09/1987	09/2005	6.910%	12	0		
33	Albeni Falls	09/1987	09/2005	8.888%	15	0		
34	Albeni Falls	09/1988	09/2005	8.500%	328	0		
35	Albeni Falls	09/1989	09/2005	9.250%	221	0		
36	Albeni Falls	09/1990	09/2005	8.875%	1,287	0		
37	Albeni Falls	09/1991	09/2005	8.750%	43	0		
38	Albeni Falls	09/1991	09/2005	8.750%	111	0		
39	Albeni Falls	09/1992	09/2005	8.500%	7	0		
40	Albeni Falls	09/1992	09/2005	8.500%	106	0		
41	Albeni Falls	09/1993	09/2005	7.875%	295	0		
42	Albeni Falls	09/1993	09/2005	7.875%	714	0		
43	Albeni Falls	09/1994	09/2019	7.125%	61	0		
44	Albeni Falls	09/1994	09/2019	7.125%	173	0		
45	Albeni Falls	09/1995	09/2010	7.090%	17	0		
46	Albeni Falls	09/1995	09/2010	7.890%	51	0		
47	Albeni Falls	09/1995	09/2045	7.150%	443	443		
48	Albeni Falls	09/1995	09/2045	7.150%	531	531		
49	Albeni Falls	09/1995	09/2045	7.150%	1,105	1,105		
50	Albeni Falls	09/1996	09/2016	7.290%	130	0		
51	Albeni Falls	09/1997	09/2047	7.150%	431	431		
52	Albeni Falls	09/2005	09/2055	5.125%	481	481		
53	Albeni Falls	09/2009	09/2059	4.375%	57	57		
54	Albeni Falls	09/2010	09/2060	4.250%	42	42		
55	Boise	09/1912	09/1962	3.000%	1,249	0		
56	Boise	09/1912	09/1962	3.000%	285	0		
57	Boise	09/1926	09/1976	3.000%	190	0		
58	Boise	09/1926	09/1976	3.000%	832	0		
59	Boise	09/1950	09/2000	3.000%	416	0		
60	Boise	09/1950	09/2000	3.000%	95	0		
61	Boise	09/1951	09/2001	3.000%	1,873	0		
62	Boise	09/1951	09/2001	3.000%	428	0		
63	Boise	09/1952	09/2001	3.000%	11	0		
64	Boise	09/1952	09/2001	3.000%	3	0		
65	Boise	09/1953	09/2001	3.000%	11	0		
66	Boise	09/1953	09/2001	3.000%	3	0		
67	Boise	09/1954	09/2001	3.000%	11	0		
68	Boise	09/1954	09/2001	3.000%	3	0		
69	Boise	09/1955	09/2001	3.000%	11	0		
70	Boise	09/1955	09/2001	3.000%	3	0		
71	Boise	09/1956	09/2001	3.000%	11	0		
72	Boise	09/1956	09/2001	3.000%	3	0		
73	Boise	09/1957	09/2001	3.000%	11	0		
74	Boise	09/1957	09/2001	3.000%	3	0		
75	Boise	09/1958	09/2001	3.000%	11	0		
76	Boise	09/1958	09/2001	3.000%	3	0		
77	Boise	09/1959	09/2001	3.000%	11	0		
78	Boise	09/1959	09/2001	3.000%	3	0		
79	Boise	09/1960	09/2001	3.000%	11	0		
80	Boise	09/1960	09/2001	3.000%	3	0		
81	Boise	09/1961	09/2001	3.000%	11	0		
82	Boise	09/1961	09/2001	3.000%	3	0		

TABLE 12A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2019 Cost Evaluation period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
83	Boise	09/1962	09/2001	3.000%	11	0		
84	Boise	09/1962	09/2001	3.000%	3	0		
85	Boise	09/1963	09/2001	3.000%	11	0		
86	Boise	09/1963	09/2001	3.000%	3	0		
87	Boise	09/1964	09/2001	3.000%	11	0		
88	Boise	09/1964	09/2001	3.000%	3	0		
89	Boise	09/1965	09/2001	3.000%	11	0		
90	Boise	09/1965	09/2001	3.000%	3	0		
91	Boise	09/1966	09/2001	3.000%	11	0		
92	Boise	09/1966	09/2001	3.000%	3	0		
93	Boise	09/1967	09/2001	3.000%	11	0		
94	Boise	09/1967	09/2001	3.000%	3	0		
95	Boise	09/1968	09/2001	3.000%	11	0		
96	Boise	09/1968	09/2001	3.000%	3	0		
97	Boise	09/1969	09/2001	3.000%	11	0		
98	Boise	09/1969	09/2001	3.000%	3	0		
99	Boise	09/1970	09/2001	3.000%	11	0		
100	Boise	09/1970	09/2001	3.000%	3	0		
101	Boise	09/1971	09/2001	3.000%	11	0		
102	Boise	09/1971	09/2001	3.000%	3	0		
103	Boise	09/1972	09/2001	3.000%	11	0		
104	Boise	09/1972	09/2001	3.000%	3	0		
105	Boise	09/1973	09/2001	3.000%	11	0		
106	Boise	09/1973	09/2001	3.000%	3	0		
107	Boise	09/1974	09/2001	3.000%	11	0		
108	Boise	09/1974	09/2001	3.000%	3	0		
109	Boise	09/1975	09/2001	3.000%	11	0		
110	Boise	09/1975	09/2001	3.000%	3	0		
111	Boise	09/1976	09/2001	3.000%	11	0		
112	Boise	09/1976	09/2001	3.000%	3	0		
113	Boise	09/1977	09/2001	3.000%	11	0		
114	Boise	09/1977	09/2001	3.000%	3	0		
115	Boise	09/1978	09/2001	3.000%	11	0		
116	Boise	09/1978	09/2001	3.000%	3	0		
117	Boise	09/1979	09/2001	3.000%	11	0		
118	Boise	09/1979	09/2001	3.000%	3	0		
119	Boise	09/1980	09/2001	3.000%	18	0		
120	Boise	09/1980	09/2001	3.000%	4	0		
121	Boise	09/1981	09/2001	3.000%	8	0		
122	Boise	09/1981	09/2001	3.000%	2	0		
123	Boise	09/1982	09/2001	3.000%	1	0		
124	Boise	09/1982	09/2001	3.000%	1	0		
125	Boise	09/1983	09/2001	3.000%	1	0		
126	Boise	09/1984	09/2001	10.750%	1,325	0		
127	Boise	09/1984	09/2001	10.750%	303	0		
128	Boise	09/1986	09/2001	6.710%	94	0		
129	Boise	09/1988	09/2001	8.500%	3	0		
130	Boise	09/1989	09/2001	9.250%	3,264	0		
131	Boise	09/1990	09/2001	8.875%	38	0		
132	Boise	09/1991	09/2001	8.750%	50	0		
133	Boise	09/1993	09/2001	7.875%	418	0		
134	Boise	09/1994	09/1999	7.125%	7	0		
135	Boise	09/1996	09/2046	6.950%	7	0		
136	Boise	09/1996	09/2046	7.150%	442	442		
137	Boise	09/1996	09/2046	7.150%	656	656		
138	Boise	09/1997	09/2047	6.950%	9	0		
139	Boise	09/1997	09/2047	7.150%	2,266	2,266		
140	Boise	09/2005	09/2055	5.125%	903	903		
141	Boise	09/2006	09/2056	4.500%	15	15		
142	Boise	09/2007	09/2057	5.000%	76	76		
143	Boise	09/2008	09/2058	4.875%	64	64		
144	Boise	09/2009	09/2059	4.375%	2	2		
145	Boise	09/2015	09/2065	3.250%	5	5		
146	Bonneville 2nd Powerhouse	09/1981	09/2031	7.150%	40,964	40,964		
147	Bonneville 2nd Powerhouse	09/1981	09/2031	7.150%	455	455		
148	Bonneville 2nd Powerhouse	09/1982	09/2032	7.150%	203,535	203,535		
149	Bonneville 2nd Powerhouse	09/1982	09/2032	7.150%	2,264	2,264		
150	Bonneville 2nd Powerhouse	09/1983	09/2033	7.150%	62,409	62,409		
151	Bonneville 2nd Powerhouse	09/1983	09/2033	7.150%	694	694		
152	Bonneville 2nd Powerhouse	09/1985	09/2033	7.150%	9,138	9,138		
153	Bonneville 2nd Powerhouse	09/1986	09/2033	7.150%	30,578	30,578		
154	Bonneville 2nd Powerhouse	09/1987	09/2033	7.150%	2,801	2,801		
155	Bonneville 2nd Powerhouse	09/1988	09/2033	7.150%	1,271	1,271		
156	Bonneville 2nd Powerhouse	09/1989	09/2033	7.150%	1,232	1,232		
157	Bonneville 2nd Powerhouse	09/1990	09/2033	7.150%	1,588	1,588		
158	Bonneville 2nd Powerhouse	09/1991	09/2033	8.750%	3,998	0		
159	Bonneville 2nd Powerhouse	09/1991	09/2033	8.750%	26	0		
160	Bonneville 2nd Powerhouse	09/1992	09/2033	8.500%	2,446	0		
161	Bonneville 2nd Powerhouse	09/1993	09/2033	7.875%	3,668	0		
162	Bonneville 2nd Powerhouse	09/1994	09/2044	7.150%	5,700	5,700		
163	Bonneville 2nd Powerhouse	09/1995	09/2045	7.150%	3,791	3,791		
164	Bonneville 2nd Powerhouse	09/1996	09/2046	7.150%	376	376		

TABLE 12A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2019 Cost Evaluation period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
165	Bonneville Dam	09/1938	09/1988	2.500%	11,726	0		
166	Bonneville Dam	09/1938	09/1988	2.500%	130	0		
167	Bonneville Dam	09/1941	09/1991	2.500%	17,589	0		
168	Bonneville Dam	09/1941	09/1991	2.500%	196	0		
169	Bonneville Dam	09/1942	09/1992	2.500%	5,863	0		
170	Bonneville Dam	09/1942	09/1992	2.500%	65	0		
171	Bonneville Dam	09/1943	09/1993	2.500%	17,589	0		
172	Bonneville Dam	09/1943	09/1993	2.500%	196	0		
173	Bonneville Dam	09/1944	09/1994	2.500%	5,860	0		
174	Bonneville Dam	09/1944	09/1994	2.500%	65	0		
175	Bonneville Dam	09/1945	09/1994	2.500%	82	0		
176	Bonneville Dam	09/1945	09/1994	2.500%	1	0		
177	Bonneville Dam	09/1946	09/1994	2.500%	81	0		
178	Bonneville Dam	09/1946	09/1994	2.500%	1	0		
179	Bonneville Dam	09/1947	09/1994	2.500%	82	0		
180	Bonneville Dam	09/1947	09/1994	2.500%	1	0		
181	Bonneville Dam	09/1948	09/1994	2.500%	81	0		
182	Bonneville Dam	09/1948	09/1994	2.500%	1	0		
183	Bonneville Dam	09/1949	09/1994	2.500%	82	0		
184	Bonneville Dam	09/1949	09/1994	2.500%	1	0		
185	Bonneville Dam	09/1950	09/1994	2.500%	81	0		
186	Bonneville Dam	09/1950	09/1994	2.500%	11	0		
187	Bonneville Dam	09/1951	09/1994	2.500%	81	0		
188	Bonneville Dam	09/1951	09/1994	2.500%	11	0		
189	Bonneville Dam	09/1952	09/1994	2.500%	82	0		
190	Bonneville Dam	09/1952	09/1994	2.500%	1	0		
191	Bonneville Dam	09/1953	09/1994	2.500%	81	0		
192	Bonneville Dam	09/1953	09/1994	2.500%	1	0		
193	Bonneville Dam	09/1954	09/1994	2.500%	82	0		
194	Bonneville Dam	09/1954	09/1994	2.500%	1	0		
195	Bonneville Dam	09/1955	09/1994	2.500%	81	0		
196	Bonneville Dam	09/1955	09/1994	2.500%	1	0		
197	Bonneville Dam	09/1956	09/1994	2.500%	81	0		
198	Bonneville Dam	09/1956	09/1994	2.500%	1	0		
199	Bonneville Dam	09/1957	09/1994	2.500%	82	0		
200	Bonneville Dam	09/1957	09/1994	2.500%	1	0		
201	Bonneville Dam	09/1958	09/1994	2.500%	81	0		
202	Bonneville Dam	09/1958	09/1994	2.500%	1	0		
203	Bonneville Dam	09/1959	09/1994	2.500%	82	0		
204	Bonneville Dam	09/1959	09/1994	2.500%	1	0		
205	Bonneville Dam	09/1960	09/1994	2.500%	81	0		
206	Bonneville Dam	09/1960	09/1994	2.500%	1	0		
207	Bonneville Dam	09/1961	09/1994	2.500%	81	0		
208	Bonneville Dam	09/1961	09/1994	2.500%	1	0		
209	Bonneville Dam	09/1962	09/1994	2.500%	82	0		
210	Bonneville Dam	09/1962	09/1994	2.500%	1	0		
211	Bonneville Dam	09/1963	09/1994	2.500%	81	0		
212	Bonneville Dam	09/1963	09/1994	2.500%	1	0		
213	Bonneville Dam	09/1964	09/1994	2.500%	82	0		
214	Bonneville Dam	09/1964	09/1994	2.500%	1	0		
215	Bonneville Dam	09/1965	09/1994	2.500%	81	0		
216	Bonneville Dam	09/1965	09/1994	2.500%	1	0		
217	Bonneville Dam	09/1966	09/1994	2.500%	81	0		
218	Bonneville Dam	09/1966	09/1994	2.500%	1	0		
219	Bonneville Dam	09/1967	09/1994	2.500%	82	0		
220	Bonneville Dam	09/1967	09/1994	2.500%	1	0		
221	Bonneville Dam	09/1968	09/1994	2.500%	81	0		
222	Bonneville Dam	09/1968	09/1994	2.500%	1	0		
223	Bonneville Dam	09/1969	09/1994	2.500%	82	0		
224	Bonneville Dam	09/1969	09/1994	2.500%	1	0		
225	Bonneville Dam	09/1970	09/1994	2.500%	81	0		
226	Bonneville Dam	09/1970	09/1994	2.500%	1	0		
227	Bonneville Dam	09/1971	09/1994	2.500%	81	0		
228	Bonneville Dam	09/1971	09/1994	2.500%	1	0		
229	Bonneville Dam	09/1972	09/1994	2.500%	82	0		
230	Bonneville Dam	09/1972	09/1994	2.500%	1	0		
231	Bonneville Dam	09/1973	09/1994	2.500%	81	0		
232	Bonneville Dam	09/1973	09/1994	2.500%	1	0		
233	Bonneville Dam	09/1974	09/1994	2.500%	82	0		
234	Bonneville Dam	09/1974	09/1994	2.500%	1	0		
235	Bonneville Dam	09/1975	09/1994	2.500%	81	0		
236	Bonneville Dam	09/1975	09/1994	2.500%	1	0		
237	Bonneville Dam	09/1976	09/1994	2.500%	81	0		
238	Bonneville Dam	09/1976	09/1994	2.500%	1	0		
239	Bonneville Dam	09/1977	09/1994	2.500%	82	0		
240	Bonneville Dam	09/1977	09/1994	2.500%	1	0		
241	Bonneville Dam	09/1977	09/2027	7.150%	15,670	15,670		
242	Bonneville Dam	09/1978	09/1994	2.500%	81	0		
243	Bonneville Dam	09/1978	09/1994	2.500%	1	0		
244	Bonneville Dam	09/1979	09/1994	2.500%	82	0		
245	Bonneville Dam	09/1979	09/1994	2.500%	1	0		
246	Bonneville Dam	09/1980	09/1994	2.500%	81	0		

TABLE 12A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2019 Cost Evaluation period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
247	Bonneville Dam	09/1980	09/1994	2.500%	1	0		
248	Bonneville Dam	09/1981	09/1994	2.500%	81	0		
249	Bonneville Dam	09/1981	09/1994	2.500%	1	0		
250	Bonneville Dam	09/1982	09/1994	2.500%	82	0		
251	Bonneville Dam	09/1982	09/1994	2.500%	2	0		
252	Bonneville Dam	09/1983	09/1994	2.500%	81	0		
253	Bonneville Dam	09/1983	09/1994	2.500%	1	0		
254	Bonneville Dam	09/1984	09/1994	10.750%	873	0		
255	Bonneville Dam	09/1984	09/1994	10.750%	10	0		
256	Bonneville Dam	09/1985	09/1994	2.500%	119	0		
257	Bonneville Dam	09/1986	09/1994	2.500%	555	0		
258	Bonneville Dam	09/1986	09/1994	11.375%	454	0		
259	Bonneville Dam	09/1987	09/1994	2.500%	260	0		
260	Bonneville Dam	09/1987	09/1994	8.875%	26	0		
261	Bonneville Dam	09/1988	09/1994	8.500%	4,199	0		
262	Bonneville Dam	09/1988	09/1994	8.500%	10	0		
263	Bonneville Dam	09/1989	09/1994	9.250%	877	0		
264	Bonneville Dam	09/1990	09/1994	8.875%	519	0		
265	Bonneville Dam	09/1990	09/1994	8.875%	651	0		
266	Bonneville Dam	09/1991	09/1994	8.750%	35	0		
267	Bonneville Dam	09/1991	09/1994	8.750%	3,193	0		
268	Bonneville Dam	09/1992	09/1994	8.500%	99	0		
269	Bonneville Dam	09/1992	09/1994	8.500%	25	0		
270	Bonneville Dam	09/1993	09/2018	7.880%	5,011	0		
271	Bonneville Dam	09/1994	09/2029	7.125%	536	0		
272	Bonneville Dam	09/1995	09/2000	7.330%	8	0		
273	Bonneville Dam	09/1995	09/2010	7.090%	25	0		
274	Bonneville Dam	09/1995	09/2020	7.250%	20	0		
275	Bonneville Dam	09/1995	09/2020	7.250%	22	0		
276	Bonneville Dam	09/1995	09/2030	7.860%	53	0		
277	Bonneville Dam	09/1995	09/2035	7.860%	98	0		
278	Bonneville Dam	09/1995	09/2045	7.150%	243	243		
279	Bonneville Dam	09/1995	09/2045	7.150%	410	410		
280	Bonneville Dam	09/1995	09/2045	7.150%	440	440		
281	Bonneville Dam	09/1995	09/2045	7.860%	374	0		
282	Bonneville Dam	09/1996	09/2016	7.290%	834	0		
283	Bonneville Dam	09/1996	09/2031	7.150%	22	22		
284	Bonneville Dam	09/1996	09/2046	7.150%	18	18		
285	Bonneville Dam	09/1996	09/2046	7.150%	18	18		
286	Bonneville Dam	09/1996	09/2046	7.150%	80	80		
287	Bonneville Dam	09/1996	09/2046	7.150%	109	109		
288	Bonneville Dam	09/1996	09/2046	7.150%	142	142		
289	Bonneville Dam	09/1996	09/2046	7.150%	223	223		
290	Bonneville Dam	09/1996	09/2046	7.150%	751	751		
291	Bonneville Dam	09/1996	09/2046	7.150%	1,322	1,322		
292	Bonneville Dam	09/1997	09/2022	7.230%	122	0		
293	Bonneville Dam	09/1997	09/2032	7.150%	518	518		
294	Bonneville Dam	09/1997	09/2047	7.150%	161	161		
295	Bonneville Dam	09/1999	09/2049	5.375%	19,368	19,368		
296	Bonneville Dam	09/2000	09/2050	6.125%	24,446	24,446		
297	Bonneville Dam	09/2001	09/2051	5.875%	2,530	2,530		
298	Bonneville Dam	09/2002	09/2052	5.500%	448	448		
299	Bonneville Dam	09/2003	09/2053	5.125%	4,581	4,581		
300	Bonneville Dam	09/2004	09/2054	5.375%	26,741	26,741		
301	Bonneville Dam	09/2005	09/2055	5.125%	19,725	19,725		
302	Bonneville Dam	09/2006	09/2056	4.500%	2,628	2,628		
303	Bonneville Dam	09/2007	09/2057	5.000%	1,124	1,124		
304	Bonneville Dam	09/2008	09/2058	4.875%	14,609	14,609		
305	Bonneville Dam	09/2009	09/2059	4.375%	2,744	2,744		
306	Bonneville Dam	09/2010	09/2060	4.250%	1,425	1,425		
307	Bonneville Dam	09/2011	09/2061	3.750%	10,962	10,962		
308	Bonneville Dam	09/2013	09/2063	2.875%	268	268		
309	Bonneville Dam	09/2014	09/2064	3.875%				
310	Bonneville Dam	09/2015	09/2065	3.250%	102	102		
311	Chief Joseph	09/1955	09/2005	6.910%	29,164	0		
312	Chief Joseph	09/1956	09/2006	6.950%	13,643	0		
313	Chief Joseph	09/1957	09/2007	6.980%	39,586	0		
314	Chief Joseph	09/1958	09/2008	7.020%	31,901	0		
315	Chief Joseph	09/1959	09/2008	7.020%	223	0		
316	Chief Joseph	09/1960	09/2008	7.020%	223	0		
317	Chief Joseph	09/1961	09/2008	7.020%	223	0		
318	Chief Joseph	09/1962	09/2008	7.020%	223	0		
319	Chief Joseph	09/1963	09/2008	7.020%	224	0		
320	Chief Joseph	09/1964	09/2008	7.020%	223	0		
321	Chief Joseph	09/1965	09/2008	7.020%	223	0		
322	Chief Joseph	09/1966	09/2008	7.020%	223	0		
323	Chief Joseph	09/1967	09/2008	7.020%	223	0		
324	Chief Joseph	09/1968	09/2008	7.020%	224	0		
325	Chief Joseph	09/1969	09/2008	7.020%	223	0		
326	Chief Joseph	09/1970	09/2008	7.020%	223	0		
327	Chief Joseph	09/1971	09/2008	7.020%	223	0		
328	Chief Joseph	09/1972	09/2008	7.020%	223	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
329	Chief Joseph	09/1973	09/2008	7.020%	224	0		
330	Chief Joseph	09/1974	09/2008	7.020%	223	0		
331	Chief Joseph	09/1975	09/2008	7.020%	223	0		
332	Chief Joseph	09/1976	09/2008	7.020%	223	0		
333	Chief Joseph	09/1977	09/2008	7.020%	223	0		
334	Chief Joseph	09/1977	09/2027	7.150%	30,512	30,512		
335	Chief Joseph	09/1978	09/2008	7.020%	224	0		
336	Chief Joseph	09/1978	09/2028	7.150%	75,669	75,669		
337	Chief Joseph	09/1979	09/2008	7.020%	223	0		
338	Chief Joseph	09/1979	09/2029	7.150%	60,079	60,079		
339	Chief Joseph	09/1980	09/2008	7.020%	223	0		
340	Chief Joseph	09/1981	09/2008	7.020%	223	0		
341	Chief Joseph	09/1982	09/2008	7.020%	223	0		
342	Chief Joseph	09/1983	09/2008	7.020%	224	0		
343	Chief Joseph	09/1984	09/2008	10.750%	909	0		
344	Chief Joseph	09/1985	09/2008	7.020%	46	0		
345	Chief Joseph	09/1985	09/2029	7.150%	16,372	16,372		
346	Chief Joseph	09/1986	09/2029	7.150%	5,363	5,363		
347	Chief Joseph	09/1987	09/2008	8.875%	104	0		
348	Chief Joseph	09/1987	09/2029	7.150%	3,036	3,036		
349	Chief Joseph	09/1988	09/2029	7.150%	2,722	2,722		
350	Chief Joseph	09/1989	09/2008	9.250%	327	0		
351	Chief Joseph	09/1989	09/2029	7.150%	2,227	2,227		
352	Chief Joseph	09/1990	09/2008	8.875%	1,024	0		
353	Chief Joseph	09/1990	09/2029	7.150%	4,505	4,505		
354	Chief Joseph	09/1991	09/2008	8.750%	34	0		
355	Chief Joseph	09/1991	09/2008	8.750%	293	0		
356	Chief Joseph	09/1991	09/2029	8.750%	3,840	0		
357	Chief Joseph	09/1992	09/2008	8.500%	142	0		
358	Chief Joseph	09/1992	09/2008	8.500%	717	0		
359	Chief Joseph	09/1992	09/2029	8.500%	2,032	0		
360	Chief Joseph	09/1993	09/2008	7.875%	42	0		
361	Chief Joseph	09/1993	09/2008	7.875%	794	0		
362	Chief Joseph	09/1993	09/2029	7.875%	1,360	0		
363	Chief Joseph	09/1994	09/2029	7.125%	129	0		
364	Chief Joseph	09/1994	09/2029	7.125%	65	0		
365	Chief Joseph	09/1994	09/2044	7.150%	4,280	4,017		
366	Chief Joseph	09/1995	09/2010	7.090%	15	0		
367	Chief Joseph	09/1995	09/2045	7.150%	147	147		
368	Chief Joseph	09/1995	09/2045	7.150%	562	562		
369	Chief Joseph	09/1995	09/2045	7.150%	712	712		
370	Chief Joseph	09/1995	09/2045	7.150%	784	784		
371	Chief Joseph	09/1996	09/2031	7.150%	27	27		
372	Chief Joseph	09/1996	09/2046	7.150%	3	3		
373	Chief Joseph	09/1996	09/2046	7.150%	4	4		
374	Chief Joseph	09/1996	09/2046	7.150%	355	355		
375	Chief Joseph	09/1996	09/2046	7.150%	729	729		
376	Chief Joseph	09/1997	09/2032	7.150%	166	166		
377	Chief Joseph	09/1997	09/2047	7.150%	657	657		
378	Chief Joseph	09/2001	09/2051	5.875%	345	345		
379	Chief Joseph	09/2002	09/2052	5.500%	2	2		
380	Chief Joseph	09/2003	09/2053	5.125%	992	992		
381	Chief Joseph	09/2008	09/2058	4.875%	3,500	3,500		
382	Chief Joseph	09/2009	09/2059	4.375%	24,727	24,727		
383	Chief Joseph	09/2011	09/2061	3.750%	4	4		
384	Chief Joseph	09/2012	09/2062	3.375%	28	28		
385	Chief Joseph	09/2013	09/2063	2.875%	10	10		
386	Columbia Basin	09/1941	09/1991	3.000%	10,919	0		
387	Columbia Basin	09/1941	09/1991	3.000%	1,505	0		
388	Columbia Basin	09/1942	09/1992	3.000%	16,165	0		
389	Columbia Basin	09/1942	09/1992	3.000%	3,011	0		
390	Columbia Basin	09/1943	09/1993	3.000%	8,083	0		
391	Columbia Basin	09/1943	09/1993	3.000%	1,505	0		
392	Columbia Basin	09/1944	09/1994	3.000%	16,165	0		
393	Columbia Basin	09/1944	09/1994	3.000%	3,011	0		
394	Columbia Basin	09/1948	09/1998	3.000%	24,247	0		
395	Columbia Basin	09/1948	09/1998	3.000%	4,516	0		
396	Columbia Basin	09/1949	09/1999	3.000%	24,247	0		
397	Columbia Basin	09/1949	09/1999	3.000%	4,516	0		
398	Columbia Basin	09/1950	09/2000	3.000%	16,165	0		
399	Columbia Basin	09/1950	09/2000	3.000%	3,011	0		
400	Columbia Basin	09/1951	09/2001	6.710%	28,255	0		
401	Columbia Basin	09/1951	09/2001	6.710%	5,790	0		
402	Columbia Basin	09/1952	09/2001	6.710%	258	0		
403	Columbia Basin	09/1952	09/2001	6.710%	48	0		
404	Columbia Basin	09/1953	09/2001	6.710%	258	0		
405	Columbia Basin	09/1953	09/2001	6.710%	48	0		
406	Columbia Basin	09/1954	09/2001	6.710%	258	0		
407	Columbia Basin	09/1954	09/2001	6.710%	48	0		
408	Columbia Basin	09/1955	09/2001	6.710%	258	0		
409	Columbia Basin	09/1955	09/2001	6.710%	48	0		
410	Columbia Basin	09/1956	09/2001	6.710%	259	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
411	Columbia Basin	09/1956	09/2001	6.710%	48	0		
412	Columbia Basin	09/1957	09/2001	6.710%	258	0		
413	Columbia Basin	09/1957	09/2001	6.710%	48	0		
414	Columbia Basin	09/1958	09/2001	6.710%	258	0		
415	Columbia Basin	09/1958	09/2001	6.710%	48	0		
416	Columbia Basin	09/1959	09/2001	6.710%	258	0		
417	Columbia Basin	09/1959	09/2001	6.710%	48	0		
418	Columbia Basin	09/1960	09/2001	6.710%	258	0		
419	Columbia Basin	09/1960	09/2001	6.710%	48	0		
420	Columbia Basin	09/1961	09/2001	6.710%	259	0		
421	Columbia Basin	09/1961	09/2001	6.710%	48	0		
422	Columbia Basin	09/1962	09/2001	6.710%	258	0		
423	Columbia Basin	09/1962	09/2001	6.710%	48	0		
424	Columbia Basin	09/1963	09/2001	6.710%	258	0		
425	Columbia Basin	09/1963	09/2001	6.710%	48	0		
426	Columbia Basin	09/1964	09/2001	6.710%	258	0		
427	Columbia Basin	09/1964	09/2001	6.710%	48	0		
428	Columbia Basin	09/1965	09/2001	6.710%	258	0		
429	Columbia Basin	09/1965	09/2001	6.710%	48	0		
430	Columbia Basin	09/1966	09/2001	6.710%	259	0		
431	Columbia Basin	09/1966	09/2001	6.710%	48	0		
432	Columbia Basin	09/1967	09/2001	6.710%	258	0		
433	Columbia Basin	09/1967	09/2001	6.710%	48	0		
434	Columbia Basin	09/1967	09/2017	7.290%	758	0		
435	Columbia Basin	09/1968	09/2001	6.710%	258	0		
436	Columbia Basin	09/1968	09/2001	6.710%	48	0		
437	Columbia Basin	09/1969	09/2001	6.710%	258	0		
438	Columbia Basin	09/1969	09/2001	6.710%	48	0		
439	Columbia Basin	09/1970	09/2001	6.710%	258	0		
440	Columbia Basin	09/1970	09/2001	6.710%	48	0		
441	Columbia Basin	09/1971	09/2001	6.710%	259	0		
442	Columbia Basin	09/1971	09/2001	6.710%	48	0		
443	Columbia Basin	09/1972	09/2001	6.710%	258	0		
444	Columbia Basin	09/1972	09/2001	6.710%	48	0		
445	Columbia Basin	09/1973	09/2001	6.710%	258	0		
446	Columbia Basin	09/1973	09/2001	6.710%	48	0		
447	Columbia Basin	09/1974	09/2001	6.710%	258	0		
448	Columbia Basin	09/1974	09/2001	6.710%	48	0		
449	Columbia Basin	09/1975	09/2001	6.710%	258	0		
450	Columbia Basin	09/1975	09/2001	6.710%	48	0		
451	Columbia Basin	09/1976	09/2001	6.710%	259	0		
452	Columbia Basin	09/1976	09/2001	6.710%	48	0		
453	Columbia Basin	09/1977	09/2001	6.710%	258	0		
454	Columbia Basin	09/1977	09/2001	6.710%	48	0		
455	Columbia Basin	09/1978	09/2001	6.710%	258	0		
456	Columbia Basin	09/1978	09/2001	6.710%	48	0		
457	Columbia Basin	09/1979	09/2001	6.710%	258	0		
458	Columbia Basin	09/1979	09/2001	6.710%	48	0		
459	Columbia Basin	09/1980	09/2001	6.710%	258	0		
460	Columbia Basin	09/1980	09/2001	6.710%	48	0		
461	Columbia Basin	09/1981	09/2001	6.710%	259	0		
462	Columbia Basin	09/1981	09/2001	6.710%	48	0		
463	Columbia Basin	09/1982	09/2001	6.710%	258	0		
464	Columbia Basin	09/1982	09/2001	6.710%	48	0		
465	Columbia Basin	09/1983	09/2001	6.710%	258	0		
466	Columbia Basin	09/1983	09/2001	6.710%	48	0		
467	Columbia Basin	09/1984	09/2001	10.750%	7,815	0		
468	Columbia Basin	09/1984	09/2001	10.750%	1,455	0		
469	Columbia Basin	09/1985	09/2001	6.710%	236	0		
470	Columbia Basin	09/1985	09/2001	6.710%	11	0		
471	Columbia Basin	09/1985	09/2001	12.375%	7,338	0		
472	Columbia Basin	09/1985	09/2001	12.375%	362	0		
473	Columbia Basin	09/1986	09/2001	6.710%	127	0		
474	Columbia Basin	09/1987	09/2001	6.710%	13	0		
475	Columbia Basin	09/1988	09/2001	8.500%	184	0		
476	Columbia Basin	09/1988	09/2001	8.500%	2	0		
477	Columbia Basin	09/1989	09/2001	9.250%	1,166	0		
478	Columbia Basin	09/1990	09/2001	8.875%	928	0		
479	Columbia Basin	09/1991	09/2001	8.750%	177	0		
480	Columbia Basin	09/1991	09/2001	8.750%	1,661	0		
481	Columbia Basin	09/1992	09/2001	8.500%	445	0		
482	Columbia Basin	09/1992	09/2001	8.500%	652	0		
483	Columbia Basin	09/1993	09/2001	6.710%	792	0		
484	Columbia Basin	09/1995	09/2000	6.620%	25	0		
485	Columbia Basin	09/1995	09/2020	7.250%	206	0		
486	Columbia Basin	09/1995	09/2030	7.150%	25	0		
487	Columbia Basin	09/1995	09/2030	7.860%	270	0		
488	Columbia Basin	09/1995	09/2030	7.860%	321	0		
489	Columbia Basin	09/1995	09/2030	7.860%	323	0		
490	Columbia Basin	09/1995	09/2030	7.860%	20	0		
491	Columbia Basin	09/1995	09/2045	7.150%	287	287		
492	Columbia Basin	09/1995	09/2045	7.150%	2,511	2,453		

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	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
493	Columbia Basin	09/1995	09/2045	7.860%	450	0		
494	Columbia Basin	09/1995	09/2045	7.860%	450	0		
495	Columbia Basin	09/1996	09/2026	7.150%	72	0		
496	Columbia Basin	09/1996	09/2031	7.150%	109	109		
497	Columbia Basin	09/1996	09/2031	7.150%	251	251		
498	Columbia Basin	09/1996	09/2046	7.150%	426	426		
499	Columbia Basin	09/1996	09/2046	7.150%	368	368		
500	Columbia Basin	09/1997	09/2047	7.150%	3,393	3,393		
501	Columbia Basin	09/2001	09/2051	5.875%	69,226	69,226		
502	Columbia Basin	09/2005	09/2055	5.125%	10,963	10,963		
503	Columbia Basin	09/2006	09/2056	4.500%	1,987	1,987		
504	Columbia Basin	09/2007	09/2057	5.000%	929	929		
505	Columbia Basin	09/2008	09/2058	4.875%	835	835		
506	Columbia Basin	09/2009	09/2059	4.375%	1,338	1,338		
507	Columbia Basin	09/2010	09/2060	4.250%	877	877		
508	Columbia Basin	09/2011	09/2061	3.750%	1,723	1,723		
509	Columbia Basin	09/2012	09/2062	3.375%	11	11		
510	Columbia Basin	09/2013	09/2063	2.875%	3,083	3,083		
511	Columbia Basin	09/2014	09/2064	3.875%	19	19		
512	Columbia Basin	09/2015	09/2065	3.250%				
513	Columbia Basin 3rd Powerhouse	09/1975	09/2025	7.160%	47,328	0		
514	Columbia Basin 3rd Powerhouse	09/1975	09/2025	7.160%	8,702	0		
515	Columbia Basin 3rd Powerhouse	09/1976	09/2026	7.150%	41,330	0		
516	Columbia Basin 3rd Powerhouse	09/1976	09/2026	7.150%	8,037	0		
517	Columbia Basin 3rd Powerhouse	09/1977	09/2027	7.150%	42,764	42,764		
518	Columbia Basin 3rd Powerhouse	09/1977	09/2027	7.150%	7,964	7,964		
519	Columbia Basin 3rd Powerhouse	09/1978	09/2028	7.150%	42,399	42,399		
520	Columbia Basin 3rd Powerhouse	09/1978	09/2028	7.150%	7,896	7,896		
521	Columbia Basin 3rd Powerhouse	09/1979	09/2029	7.150%	84,118	84,118		
522	Columbia Basin 3rd Powerhouse	09/1979	09/2029	7.150%	15,666	15,666		
523	Columbia Basin 3rd Powerhouse	09/1983	09/2033	7.150%	712	712		
524	Columbia Basin 3rd Powerhouse	09/1983	09/2033	7.150%	13,003	13,003		
525	Columbia Basin 3rd Powerhouse	09/1984	09/2033	7.150%	16,965	16,965		
526	Columbia Basin 3rd Powerhouse	09/1984	09/2033	7.150%	13,192	13,192		
527	Columbia Basin 3rd Powerhouse	09/1984	09/2033	7.150%	3,160	3,160		
528	Columbia Basin 3rd Powerhouse	09/1985	09/2033	7.150%	2,060	2,060		
529	Columbia Basin 3rd Powerhouse	09/1985	09/2033	7.150%	41,772	41,772		
530	Columbia Basin 3rd Powerhouse	09/1985	09/2033	7.150%	107	107		
531	Columbia Basin 3rd Powerhouse	09/1986	09/2033	7.150%	1,851	1,851		
532	Columbia Basin 3rd Powerhouse	09/1986	09/2033	7.150%	15,538	15,538		
533	Columbia Basin 3rd Powerhouse	09/1987	09/2033	7.150%	1,730	1,730		
534	Columbia Basin 3rd Powerhouse	09/1987	09/2033	7.150%	14,439	14,439		
535	Columbia Basin 3rd Powerhouse	09/1988	09/2033	7.150%	2,294	2,294		
536	Columbia Basin 3rd Powerhouse	09/1988	09/2033	7.150%	4,351	4,351		
537	Columbia Basin 3rd Powerhouse	09/1989	09/2033	7.150%	10,902	10,902		
538	Columbia Basin 3rd Powerhouse	09/1990	09/2033	7.150%	6,383	6,383		
539	Columbia Basin 3rd Powerhouse	09/1994	09/2044	7.150%	12,631	12,631		
540	Columbia River Fish Mitigation	09/1991	09/2041	8.500%	3,969	0		
541	Columbia River Fish Mitigation	09/1992	09/2042	8.500%	874	0		
542	Columbia River Fish Mitigation	09/1993	09/2043	8.500%	85,846	0		
543	Columbia River Fish Mitigation	09/1994	09/2044	8.500%	39,454	0		
544	Columbia River Fish Mitigation	09/1995	09/2045	7.150%	43,343	39,282		
545	Columbia River Fish Mitigation	09/1996	09/2046	7.150%	2,431	2,431		
546	Columbia River Fish Mitigation	09/1999	09/2049	5.375%	14,115	14,115		
547	Columbia River Fish Mitigation	09/2000	09/2050	6.125%	47,006	47,006		
548	Columbia River Fish Mitigation	09/2001	09/2051	5.875%	6,168	6,168		
549	Columbia River Fish Mitigation	09/2002	09/2052	5.500%	8,797	8,797		
550	Columbia River Fish Mitigation	09/2003	09/2053	5.125%	68,440	68,440		
551	Columbia River Fish Mitigation	09/2004	09/2054	5.375%	60,581	60,581		
552	Columbia River Fish Mitigation	09/2005	09/2055	5.125%	52,039	52,039		
553	Columbia River Fish Mitigation	09/2006	09/2056	4.500%	366,395	366,395		
554	Columbia River Fish Mitigation	09/2007	09/2057	5.000%	53,525	53,525		
555	Columbia River Fish Mitigation	09/2008	09/2058	4.875%	36,554	36,554		
556	Columbia River Fish Mitigation	09/2009	09/2059	4.375%	103,203	103,203		
557	Columbia River Fish Mitigation	09/2010	09/2060	4.250%	56,832	56,832		
558	Columbia River Fish Mitigation	09/2011	09/2061	3.750%	106,014	106,014		
559	Columbia River Fish Mitigation	09/2012	09/2062	3.375%	101,616	101,616		
560	Columbia River Fish Mitigation	09/2013	09/2063	2.875%	95,274	95,274		
561	Columbia River Fish Mitigation	09/2014	09/2064	3.875%	110,071	110,071		
562	Columbia River Fish Mitigation	09/2015	09/2065	3.250%	64,288	64,288		
563	Cougar	09/1964	09/2014	7.230%	10,414	0		
564	Cougar	09/1965	09/2014	7.230%	20	0		
565	Cougar	09/1966	09/2014	7.230%	20	0		
566	Cougar	09/1967	09/2014	7.230%	20	0		
567	Cougar	09/1968	09/2014	7.230%	20	0		
568	Cougar	09/1969	09/2014	7.230%	20	0		
569	Cougar	09/1970	09/2014	7.230%	20	0		
570	Cougar	09/1971	09/2014	7.230%	20	0		
571	Cougar	09/1972	09/2014	7.230%	20	0		
572	Cougar	09/1973	09/2014	7.230%	20	0		
573	Cougar	09/1974	09/2014	7.230%	19	0		
574	Cougar	09/1975	09/2014	7.230%	20	0		

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	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
575	Cougar	09/1976	09/2014	7.230%	20	0		
576	Cougar	09/1977	09/2014	7.230%	20	0		
577	Cougar	09/1978	09/2014	7.230%	20	0		
578	Cougar	09/1979	09/2014	7.230%	20	0		
579	Cougar	09/1980	09/2014	7.230%	20	0		
580	Cougar	09/1981	09/2014	7.230%	20	0		
581	Cougar	09/1982	09/2014	7.230%	20	0		
582	Cougar	09/1983	09/2014	7.230%	20	0		
583	Cougar	09/1984	09/2014	10.750%	1	0		
584	Cougar	09/1985	09/2014	7.230%	1	0		
585	Cougar	09/1986	09/2014	7.230%	104	0		
586	Cougar	09/1986	09/2014	11.375%	55	0		
587	Cougar	09/1987	09/2014	7.230%	45	0		
588	Cougar	09/1988	09/2014	8.500%	2	0		
589	Cougar	09/1989	09/2014	9.250%	6	0		
590	Cougar	09/1990	09/2014	8.875%	10	0		
591	Cougar	09/1991	09/2014	8.750%	1,015	0		
592	Cougar	09/1991	09/2014	8.750%	1	0		
593	Cougar	09/1992	09/2014	8.500%	2	0		
594	Cougar	09/1993	09/2014	7.875%	539	0		
595	Cougar	09/1994	09/2019	7.125%	31	0		
596	Cougar	09/1995	09/2000	7.330%	3	0		
597	Cougar	09/1997	09/2047	7.150%	26	26		
598	Cougar	09/2004	09/2054	5.375%	3,622	3,622		
599	Cougar	09/2005	09/2055	5.125%	8,130	8,130		
600	Cougar	09/2006	09/2056	4.500%	109	109		
601	Cougar	09/2007	09/2057	5.000%	120	120		
602	Cougar	09/2009	09/2059	4.375%	121	121		
603	Cougar	09/2010	09/2060	4.250%	59	59		
604	Cougar	09/2011	09/2061	3.750%	282	282		
605	Cougar	09/2012	09/2062	3.375%	139	139		
606	Cougar	09/2013	09/2063	2.875%	4,088	4,088		
607	Cougar	09/2014	09/2064	3.875%	12	12		
608	Detroit Lake/Big Cliff	09/1953	09/2003	6.840%	12,533	0		
609	Detroit Lake/Big Cliff	09/1954	09/2004	6.880%	20,162	0		
610	Detroit Lake/Big Cliff	09/1955	09/2004	6.880%	18	0		
611	Detroit Lake/Big Cliff	09/1956	09/2004	6.880%	19	0		
612	Detroit Lake/Big Cliff	09/1957	09/2004	6.880%	18	0		
613	Detroit Lake/Big Cliff	09/1958	09/2004	6.880%	19	0		
614	Detroit Lake/Big Cliff	09/1959	09/2004	6.880%	18	0		
615	Detroit Lake/Big Cliff	09/1960	09/2004	6.880%	19	0		
616	Detroit Lake/Big Cliff	09/1961	09/2004	6.880%	18	0		
617	Detroit Lake/Big Cliff	09/1962	09/2004	6.880%	19	0		
618	Detroit Lake/Big Cliff	09/1963	09/2004	6.880%	18	0		
619	Detroit Lake/Big Cliff	09/1964	09/2004	6.880%	19	0		
620	Detroit Lake/Big Cliff	09/1965	09/2004	6.880%	18	0		
621	Detroit Lake/Big Cliff	09/1966	09/2004	6.880%	19	0		
622	Detroit Lake/Big Cliff	09/1967	09/2004	6.880%	18	0		
623	Detroit Lake/Big Cliff	09/1968	09/2004	6.880%	19	0		
624	Detroit Lake/Big Cliff	09/1969	09/2004	6.880%	18	0		
625	Detroit Lake/Big Cliff	09/1970	09/2004	6.880%	19	0		
626	Detroit Lake/Big Cliff	09/1971	09/2004	6.880%	18	0		
627	Detroit Lake/Big Cliff	09/1972	09/2004	6.880%	19	0		
628	Detroit Lake/Big Cliff	09/1973	09/2004	6.880%	18	0		
629	Detroit Lake/Big Cliff	09/1974	09/2004	6.880%	19	0		
630	Detroit Lake/Big Cliff	09/1975	09/2004	6.880%	18	0		
631	Detroit Lake/Big Cliff	09/1976	09/2004	6.880%	19	0		
632	Detroit Lake/Big Cliff	09/1977	09/2004	6.880%	18	0		
633	Detroit Lake/Big Cliff	09/1978	09/2004	6.880%	19	0		
634	Detroit Lake/Big Cliff	09/1979	09/2004	6.880%	18	0		
635	Detroit Lake/Big Cliff	09/1980	09/2004	6.880%	19	0		
636	Detroit Lake/Big Cliff	09/1981	09/2004	6.880%	18	0		
637	Detroit Lake/Big Cliff	09/1982	09/2004	6.880%	19	0		
638	Detroit Lake/Big Cliff	09/1983	09/2004	6.880%	18	0		
639	Detroit Lake/Big Cliff	09/1984	09/2004	10.750%	21	0		
640	Detroit Lake/Big Cliff	09/1985	09/2004	6.880%	6	0		
641	Detroit Lake/Big Cliff	09/1986	09/2004	11.375%	38	0		
642	Detroit Lake/Big Cliff	09/1987	09/2004	6.880%	3	0		
643	Detroit Lake/Big Cliff	09/1987	09/2004	8.875%	233	0		
644	Detroit Lake/Big Cliff	09/1988	09/2004	8.500%	68	0		
645	Detroit Lake/Big Cliff	09/1989	09/2004	9.250%	26	0		
646	Detroit Lake/Big Cliff	09/1990	09/2004	8.875%	115	0		
647	Detroit Lake/Big Cliff	09/1991	09/2004	8.750%	9	0		
648	Detroit Lake/Big Cliff	09/1991	09/2004	8.750%	20	0		
649	Detroit Lake/Big Cliff	09/1992	09/2004	8.500%	8	0		
650	Detroit Lake/Big Cliff	09/1993	09/2004	7.875%	211	0		
651	Detroit Lake/Big Cliff	09/1994	09/1999	7.125%	7	0		
652	Detroit Lake/Big Cliff	09/1995	09/2000	7.330%	13	0		
653	Detroit Lake/Big Cliff	09/1995	09/2045	7.150%	38	38		
654	Detroit Lake/Big Cliff	09/1996	09/2006	6.950%	24	0		
655	Detroit Lake/Big Cliff	09/2001	09/2051	5.875%	282	282		
656	Detroit Lake/Big Cliff	09/2002	09/2052	5.500%	18	18		

TABLE 12A:
HISTORICAL INVESTMENTS
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
657	Detroit Lake/Big Cliff	09/2003	09/2053	5.125%	223	223		
658	Detroit Lake/Big Cliff	09/2005	09/2055	5.125%	1,031	1,031		
659	Detroit Lake/Big Cliff	09/2013	09/2063	2.875%	528	528		
660	Detroit Lake/Big Cliff	09/2014	09/2064	3.875%	18	18		
661	Dworshak	09/1973	09/2023	7.190%	138,443	0		
662	Dworshak	09/1973	09/2023	7.190%	836	0		
663	Dworshak	09/1974	09/2023	7.190%	515	0		
664	Dworshak	09/1974	09/2023	7.190%	3	0		
665	Dworshak	09/1975	09/2023	7.190%	518	0		
666	Dworshak	09/1975	09/2023	7.190%	3	0		
667	Dworshak	09/1976	09/2023	7.190%	518	0		
668	Dworshak	09/1976	09/2023	7.190%	3	0		
669	Dworshak	09/1977	09/2023	7.190%	518	0		
670	Dworshak	09/1977	09/2023	7.190%	3	0		
671	Dworshak	09/1978	09/2023	7.190%	518	0		
672	Dworshak	09/1978	09/2023	7.190%	3	0		
673	Dworshak	09/1979	09/2023	7.190%	518	0		
674	Dworshak	09/1979	09/2023	7.190%	3	0		
675	Dworshak	09/1980	09/2023	7.190%	518	0		
676	Dworshak	09/1980	09/2023	7.190%	3	0		
677	Dworshak	09/1981	09/2023	7.190%	518	0		
678	Dworshak	09/1981	09/2023	7.190%	3	0		
679	Dworshak	09/1982	09/2023	7.190%	518	0		
680	Dworshak	09/1982	09/2023	7.190%	3	0		
681	Dworshak	09/1983	09/2023	7.190%	523	0		
682	Dworshak	09/1983	09/2023	7.190%	3	0		
683	Dworshak	09/1984	09/2023	10.750%	2,499	0		
684	Dworshak	09/1984	09/2023	10.750%	15	0		
685	Dworshak	09/1985	09/2023	7.190%	1,141	0		
686	Dworshak	09/1986	09/2023	7.190%	197	0		
687	Dworshak	09/1987	09/2023	7.190%	36	0		
688	Dworshak	09/1987	09/2023	8.875%	65	0		
689	Dworshak	09/1988	09/2023	8.500%	61	0		
690	Dworshak	09/1989	09/2023	9.250%	63	0		
691	Dworshak	09/1990	09/2023	8.875%	245	0		
692	Dworshak	09/1990	09/2023	8.875%	24	0		
693	Dworshak	09/1991	09/2023	8.750%	224	0		
694	Dworshak	09/1992	09/2023	2.625%	4	0		
695	Dworshak	09/1992	09/2023	8.500%	28	0		
696	Dworshak	09/1992	09/2023	8.500%	24	0		
697	Dworshak	09/1993	09/2023	7.875%	41	0		
698	Dworshak	09/1993	09/2023	7.875%	1,872	0		
699	Dworshak	09/1994	09/2029	7.125%	1,351	0		
700	Dworshak	09/1994	09/2029	7.125%	964	0		
701	Dworshak	09/1995	09/2020	7.930%	55	0		
702	Dworshak	09/1995	09/2030	7.150%	218	218		
703	Dworshak	09/1995	09/2045	7.150%	1,162	1,162		
704	Dworshak	09/1996	09/2011	7.130%	107	0		
705	Dworshak	09/1996	09/2021	7.230%	26	0		
706	Dworshak	09/1996	09/2021	7.230%	184	0		
707	Dworshak	09/1996	09/2031	7.150%	6	6		
708	Dworshak	09/1996	09/2031	7.150%	203	203		
709	Dworshak	09/1996	09/2046	7.150%	3	3		
710	Dworshak	09/1996	09/2046	7.150%	4	4		
711	Dworshak	09/1996	09/2046	7.150%	46	46		
712	Dworshak	09/1997	09/2047	7.150%	7,588	7,588		
713	Dworshak	09/1999	09/2049	5.375%	630	630		
714	Dworshak	09/2002	09/2052	5.500%	199	199		
715	Dworshak	09/2003	09/2053	5.125%	761	761		
716	Dworshak	09/2005	09/2055	5.125%	713	713		
717	Dworshak	09/2006	09/2056	4.500%	73	73		
718	Dworshak	09/2008	09/2058	4.875%	10	10		
719	Dworshak	09/2009	09/2059	4.375%	2,425	2,425		
720	Dworshak	09/2014	09/2064	3.875%	50	0		
721	Green Peter/Foster	09/1967	09/2017	7.290%	24,445	0		
722	Green Peter/Foster	09/1968	09/2018	7.280%	12,180	0		
723	Green Peter/Foster	09/1969	09/2018	7.280%	39	0		
724	Green Peter/Foster	09/1970	09/2018	7.280%	40	0		
725	Green Peter/Foster	09/1971	09/2018	7.280%	39	0		
726	Green Peter/Foster	09/1972	09/2018	7.280%	39	0		
727	Green Peter/Foster	09/1973	09/2018	7.280%	39	0		
728	Green Peter/Foster	09/1974	09/2018	7.280%	39	0		
729	Green Peter/Foster	09/1975	09/2018	7.280%	39	0		
730	Green Peter/Foster	09/1976	09/2018	7.280%	39	0		
731	Green Peter/Foster	09/1977	09/2018	7.280%	39	0		
732	Green Peter/Foster	09/1978	09/2018	7.280%	39	0		
733	Green Peter/Foster	09/1979	09/2018	7.280%	39	0		
734	Green Peter/Foster	09/1980	09/2018	7.280%	40	0		
735	Green Peter/Foster	09/1981	09/2018	7.280%	39	0		
736	Green Peter/Foster	09/1982	09/2018	7.280%	39	0		
737	Green Peter/Foster	09/1983	09/2018	7.280%	39	0		
738	Green Peter/Foster	09/1984	09/2018	10.750%	15	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
739	Green Peter/Foster	09/1985	09/2018	7.280%	16	0		
740	Green Peter/Foster	09/1986	09/2018	7.280%	3	0		
741	Green Peter/Foster	09/1986	09/2018	11.375%	3	0		
742	Green Peter/Foster	09/1987	09/2018	7.280%	1	0		
743	Green Peter/Foster	09/1987	09/2018	8.875%	2	0		
744	Green Peter/Foster	09/1988	09/2018	8.500%	13	0		
745	Green Peter/Foster	09/1989	09/2018	9.250%	24	0		
746	Green Peter/Foster	09/1990	09/2018	8.875%	5	0		
747	Green Peter/Foster	09/1991	09/2018	8.750%	48	0		
748	Green Peter/Foster	09/1992	09/2018	8.500%	2	0		
749	Green Peter/Foster	09/1993	09/2018	7.875%	41	0		
750	Green Peter/Foster	09/1994	09/1999	7.125%	6	0		
751	Green Peter/Foster	09/1995	09/2000	7.330%	4	0		
752	Green Peter/Foster	09/1995	09/2020	7.250%	11	0		
753	Green Peter/Foster	09/1995	09/2020	7.250%	24	0		
754	Green Peter/Foster	09/1996	09/2046	7.150%	26	26		
755	Green Peter/Foster	09/2001	09/2051	5.875%	200	200		
756	Green Peter/Foster	09/2011	09/2061	3.750%	87	87		
757	Green Peter/Foster	09/2012	09/2062	3.375%	28	28		
758	Green Peter/Foster	09/2014	09/2064	3.875%	385	385		
759	Green Peter/Foster	09/2015	09/2065	3.250%	19	19		
760	Hills Creek	09/1962	09/2012	7.160%	10,353	0		
761	Hills Creek	09/1963	09/2012	7.160%	12	0		
762	Hills Creek	09/1964	09/2012	7.160%	13	0		
763	Hills Creek	09/1965	09/2012	7.160%	13	0		
764	Hills Creek	09/1966	09/2012	7.160%	13	0		
765	Hills Creek	09/1967	09/2012	7.160%	13	0		
766	Hills Creek	09/1968	09/2012	7.160%	13	0		
767	Hills Creek	09/1969	09/2012	7.160%	13	0		
768	Hills Creek	09/1970	09/2012	7.160%	13	0		
769	Hills Creek	09/1971	09/2012	7.160%	13	0		
770	Hills Creek	09/1972	09/2012	7.160%	13	0		
771	Hills Creek	09/1973	09/2012	7.160%	13	0		
772	Hills Creek	09/1974	09/2012	7.160%	13	0		
773	Hills Creek	09/1975	09/2012	7.160%	13	0		
774	Hills Creek	09/1976	09/2012	7.160%	13	0		
775	Hills Creek	09/1977	09/2012	7.160%	13	0		
776	Hills Creek	09/1978	09/2012	7.160%	13	0		
777	Hills Creek	09/1979	09/2012	7.160%	13	0		
778	Hills Creek	09/1980	09/2012	7.160%	13	0		
779	Hills Creek	09/1981	09/2012	7.160%	13	0		
780	Hills Creek	09/1982	09/2012	7.160%	13	0		
781	Hills Creek	09/1983	09/2012	7.160%	13	0		
782	Hills Creek	09/1984	09/2012	10.750%	52	0		
783	Hills Creek	09/1985	09/2012	7.160%	6	0		
784	Hills Creek	09/1987	09/2012	8.875%	3	0		
785	Hills Creek	09/1988	09/2012	8.500%	3	0		
786	Hills Creek	09/1990	09/2012	8.875%	3	0		
787	Hills Creek	09/1991	09/2012	8.750%	17	0		
788	Hills Creek	09/1992	09/2012	8.500%	1	0		
789	Hills Creek	09/1993	09/2012	7.875%	13	0		
790	Hills Creek	09/1996	09/2046	7.150%	28	28		
791	Hills Creek	09/2000	09/2050	6.125%	2,630	2,630		
792	Hills Creek	09/2001	09/2051	5.875%	8	8		
793	Hills Creek	09/2002	09/2052	5.500%	2	2		
794	Hills Creek	09/2005	09/2055	5.125%	46	46		
795	Hills Creek	09/2011	09/2061	3.750%	12	12		
796	Hills Creek	09/2012	09/2062	3.375%	142	142		
797	Hungry Horse Dam	09/1953	09/2003	6.840%	75,076	0		
798	Hungry Horse Dam	09/1953	09/2003	6.840%	2,126	0		
799	Hungry Horse Dam	09/1954	09/2003	6.840%	17	0		
800	Hungry Horse Dam	09/1954	09/2003	6.840%	1	0		
801	Hungry Horse Dam	09/1955	09/2003	6.840%	17	0		
802	Hungry Horse Dam	09/1955	09/2003	6.840%	1	0		
803	Hungry Horse Dam	09/1956	09/2003	6.840%	17	0		
804	Hungry Horse Dam	09/1956	09/2003	6.840%	1	0		
805	Hungry Horse Dam	09/1957	09/2003	6.840%	18	0		
806	Hungry Horse Dam	09/1957	09/2003	6.840%	1	0		
807	Hungry Horse Dam	09/1958	09/2003	6.840%	18	0		
808	Hungry Horse Dam	09/1958	09/2003	6.840%	1	0		
809	Hungry Horse Dam	09/1959	09/2003	6.840%	18	0		
810	Hungry Horse Dam	09/1959	09/2003	6.840%	1	0		
811	Hungry Horse Dam	09/1960	09/2003	6.840%	18	0		
812	Hungry Horse Dam	09/1960	09/2003	6.840%	1	0		
813	Hungry Horse Dam	09/1961	09/2003	6.840%	18	0		
814	Hungry Horse Dam	09/1961	09/2003	6.840%	1	0		
815	Hungry Horse Dam	09/1962	09/2003	6.840%	18	0		
816	Hungry Horse Dam	09/1962	09/2003	6.840%	1	0		
817	Hungry Horse Dam	09/1963	09/2003	6.840%	18	0		
818	Hungry Horse Dam	09/1963	09/2003	6.840%	1	0		
819	Hungry Horse Dam	09/1964	09/2003	6.840%	17	0		
820	Hungry Horse Dam	09/1964	09/2003	6.840%	1	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
821	Hungry Horse Dam	09/1965	09/2003	6.840%	17	0		
822	Hungry Horse Dam	09/1965	09/2003	6.840%	1	0		
823	Hungry Horse Dam	09/1966	09/2003	6.840%	17	0		
824	Hungry Horse Dam	09/1966	09/2003	6.840%	1	0		
825	Hungry Horse Dam	09/1967	09/2003	6.840%	18	0		
826	Hungry Horse Dam	09/1967	09/2003	6.840%	1	0		
827	Hungry Horse Dam	09/1968	09/2003	6.840%	18	0		
828	Hungry Horse Dam	09/1968	09/2003	6.840%	1	0		
829	Hungry Horse Dam	09/1969	09/2003	6.840%	18	0		
830	Hungry Horse Dam	09/1969	09/2003	6.840%	1	0		
831	Hungry Horse Dam	09/1970	09/2003	6.840%	18	0		
832	Hungry Horse Dam	09/1970	09/2003	6.840%	1	0		
833	Hungry Horse Dam	09/1971	09/2003	6.840%	18	0		
834	Hungry Horse Dam	09/1971	09/2003	6.840%	1	0		
835	Hungry Horse Dam	09/1972	09/2003	6.840%	18	0		
836	Hungry Horse Dam	09/1972	09/2003	6.840%	1	0		
837	Hungry Horse Dam	09/1973	09/2003	6.840%	18	0		
838	Hungry Horse Dam	09/1973	09/2003	6.840%	1	0		
839	Hungry Horse Dam	09/1974	09/2003	6.840%	17	0		
840	Hungry Horse Dam	09/1974	09/2003	6.840%	1	0		
841	Hungry Horse Dam	09/1975	09/2003	6.840%	17	0		
842	Hungry Horse Dam	09/1975	09/2003	6.840%	1	0		
843	Hungry Horse Dam	09/1976	09/2003	6.840%	10	0		
844	Hungry Horse Dam	09/1976	09/2003	6.840%	1	0		
845	Hungry Horse Dam	09/1977	09/2003	6.840%	18	0		
846	Hungry Horse Dam	09/1977	09/2003	6.840%	1	0		
847	Hungry Horse Dam	09/1978	09/2003	6.840%	18	0		
848	Hungry Horse Dam	09/1978	09/2003	6.840%	1	0		
849	Hungry Horse Dam	09/1979	09/2003	6.840%	18	0		
850	Hungry Horse Dam	09/1979	09/2003	6.840%	1	0		
851	Hungry Horse Dam	09/1980	09/2003	6.840%	18	0		
852	Hungry Horse Dam	09/1980	09/2003	6.840%	1	0		
853	Hungry Horse Dam	09/1981	09/2003	6.840%	22	0		
854	Hungry Horse Dam	09/1981	09/2003	6.840%	1	0		
855	Hungry Horse Dam	09/1982	09/2003	6.840%	1	0		
856	Hungry Horse Dam	09/1983	09/2003	6.840%	12	0		
857	Hungry Horse Dam	09/1983	09/2003	6.840%	1	0		
858	Hungry Horse Dam	09/1984	09/2003	10.750%	32	0		
859	Hungry Horse Dam	09/1984	09/2003	10.750%	1	0		
860	Hungry Horse Dam	09/1985	09/2003	12.375%	36	0		
861	Hungry Horse Dam	09/1985	09/2003	12.375%	37	0		
862	Hungry Horse Dam	09/1989	09/2003	9.250%	101	0		
863	Hungry Horse Dam	09/1990	09/2003	8.875%	58	0		
864	Hungry Horse Dam	09/1991	09/2003	8.750%	19	0		
865	Hungry Horse Dam	09/1992	09/2003	8.500%	9	0		
866	Hungry Horse Dam	09/1993	09/2003	7.875%	4,136	0		
867	Hungry Horse Dam	09/1993	09/2003	7.875%	2	0		
868	Hungry Horse Dam	09/1994	09/2019	7.125%	56	0		
869	Hungry Horse Dam	09/1995	09/2000	6.620%	156	0		
870	Hungry Horse Dam	09/1995	09/2000	6.620%	84	0		
871	Hungry Horse Dam	09/1995	09/2020	7.930%	450	0		
872	Hungry Horse Dam	09/1995	09/2030	7.150%	536	536		
873	Hungry Horse Dam	09/1995	09/2030	7.150%	1,198	1,195		
874	Hungry Horse Dam	09/1995	09/2045	7.150%	6,190	6,190		
875	Hungry Horse Dam	09/1995	09/2045	7.860%	14,354	0		
876	Hungry Horse Dam	09/1996	09/2046	7.150%	15	15		
877	Hungry Horse Dam	09/1996	09/2046	7.150%	2	2		
878	Hungry Horse Dam	09/1997	09/2007	6.950%	154	0		
879	Hungry Horse Dam	09/1997	09/2047	7.150%	111	111		
880	Hungry Horse Dam	09/2001	09/2051	5.875%	552	552		
881	Hungry Horse Dam	09/2005	09/2055	5.125%	2,951	2,951		
882	Hungry Horse Dam	09/2007	09/2057	5.000%	294	294		
883	Hungry Horse Dam	09/2008	09/2058	4.875%	76	76		
884	Hungry Horse Dam	09/2009	09/2059	4.375%	60	60		
885	Hungry Horse Dam	09/2010	09/2060	4.250%	779	779		
886	Hungry Horse Dam	09/2011	09/2061	3.750%	503	503		
887	Hungry Horse Dam	09/2012	09/2062	3.375%	3	3		
888	Hungry Horse Dam	09/2014	09/2064	3.875%	12	12		
889	Hungry Horse Dam	09/2015	09/2065	3.250%	32	32		
890	Ice Harbor	09/1962	09/2012	7.160%	59,699	0		
891	Ice Harbor	09/1962	09/2012	7.160%	664	0		
892	Ice Harbor	09/1963	09/2012	7.160%	46	0		
893	Ice Harbor	09/1963	09/2012	7.160%	1	0		
894	Ice Harbor	09/1964	09/2012	7.160%	46	0		
895	Ice Harbor	09/1964	09/2012	7.160%	1	0		
896	Ice Harbor	09/1965	09/2012	7.160%	46	0		
897	Ice Harbor	09/1965	09/2012	7.160%	1	0		
898	Ice Harbor	09/1966	09/2012	7.160%	46	0		
899	Ice Harbor	09/1966	09/2012	7.160%	1	0		
900	Ice Harbor	09/1967	09/2012	7.160%	46	0		
901	Ice Harbor	09/1967	09/2012	7.160%	1	0		
902	Ice Harbor	09/1968	09/2012	7.160%	46	0		

TABLE 12A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
903	Ice Harbor	09/1968	09/2012	7.160%	1	0		
904	Ice Harbor	09/1969	09/2012	7.160%	46	0		
905	Ice Harbor	09/1969	09/2012	7.160%	1	0		
906	Ice Harbor	09/1970	09/2012	7.160%	46	0		
907	Ice Harbor	09/1970	09/2012	7.160%	1	0		
908	Ice Harbor	09/1971	09/2012	7.160%	46	0		
909	Ice Harbor	09/1971	09/2012	7.160%	1	0		
910	Ice Harbor	09/1972	09/2012	7.160%	46	0		
911	Ice Harbor	09/1972	09/2012	7.160%	1	0		
912	Ice Harbor	09/1973	09/2012	7.160%	46	0		
913	Ice Harbor	09/1973	09/2012	7.160%	1	0		
914	Ice Harbor	09/1974	09/2012	7.160%	46	0		
915	Ice Harbor	09/1974	09/2012	7.160%	1	0		
916	Ice Harbor	09/1975	09/2012	7.160%	46	0		
917	Ice Harbor	09/1975	09/2012	7.160%	1	0		
918	Ice Harbor	09/1976	09/2012	7.160%	46	0		
919	Ice Harbor	09/1976	09/2012	7.160%	1	0		
920	Ice Harbor	09/1976	09/2026	7.150%	20,472	0		
921	Ice Harbor	09/1976	09/2026	7.150%	228	0		
922	Ice Harbor	09/1977	09/2012	7.160%	46	0		
923	Ice Harbor	09/1977	09/2012	7.160%	1	0		
924	Ice Harbor	09/1978	09/2012	7.160%	46	0		
925	Ice Harbor	09/1978	09/2012	7.160%	1	0		
926	Ice Harbor	09/1979	09/2012	7.160%	46	0		
927	Ice Harbor	09/1979	09/2012	7.160%	1	0		
928	Ice Harbor	09/1980	09/2012	7.160%	46	0		
929	Ice Harbor	09/1980	09/2012	7.160%	1	0		
930	Ice Harbor	09/1981	09/2012	7.160%	46	0		
931	Ice Harbor	09/1981	09/2012	7.160%	1	0		
932	Ice Harbor	09/1982	09/2012	7.160%	46	0		
933	Ice Harbor	09/1982	09/2012	7.160%	1	0		
934	Ice Harbor	09/1983	09/2012	7.160%	46	0		
935	Ice Harbor	09/1983	09/2012	7.160%	1	0		
936	Ice Harbor	09/1985	09/2012	7.160%	41	0		
937	Ice Harbor	09/1985	09/2026	7.150%	21	0		
938	Ice Harbor	09/1986	09/2012	7.160%	137	0		
939	Ice Harbor	09/1987	09/2012	7.160%	3	0		
940	Ice Harbor	09/1987	09/2012	8.875%	71	0		
941	Ice Harbor	09/1987	09/2012	8.875%	1	0		
942	Ice Harbor	09/1988	09/2012	8.500%	8	0		
943	Ice Harbor	09/1988	09/2012	8.500%	57	0		
944	Ice Harbor	09/1989	09/2012	9.250%	51	0		
945	Ice Harbor	09/1990	09/2012	8.875%	427	0		
946	Ice Harbor	09/1991	09/2012	8.750%	348	0		
947	Ice Harbor	09/1992	09/2012	8.500%	177	0		
948	Ice Harbor	09/1993	09/2012	7.875%	3,192	0		
949	Ice Harbor	09/1993	09/2012	7.875%	1,645	0		
950	Ice Harbor	09/1994	09/2029	7.125%	328	0		
951	Ice Harbor	09/1994	09/2029	7.125%	520	0		
952	Ice Harbor	09/1995	09/2000	7.330%	2	0		
953	Ice Harbor	09/1995	09/2019	7.270%	84	0		
954	Ice Harbor	09/1995	09/2019	7.270%	171	0		
955	Ice Harbor	09/1995	09/2019	7.270%	849	0		
956	Ice Harbor	09/1996	09/2031	7.150%	78	78		
957	Ice Harbor	09/1996	09/2041	7.150%	371	371		
958	Ice Harbor	09/1997	09/2022	7.230%	66	0		
959	Ice Harbor	09/1997	09/2047	7.150%	67	67		
960	Ice Harbor	09/1999	09/2049	5.375%	5,516	5,516		
961	Ice Harbor	09/2000	09/2050	6.125%	548	548		
962	Ice Harbor	09/2001	09/2051	5.875%	764	764		
963	Ice Harbor	09/2002	09/2052	5.500%	1,014	1,014		
964	Ice Harbor	09/2003	09/2053	5.125%	50	50		
965	Ice Harbor	09/2004	09/2054	5.375%	3,321	3,321		
966	Ice Harbor	09/2008	09/2058	4.875%	14	14		
967	Ice Harbor	09/2009	09/2059	4.375%	2,615	2,615		
968	Ice Harbor	09/2010	09/2060	4.250%	207	207		
969	Ice Harbor	09/2011	09/2061	3.750%	819	819		
970	Ice Harbor	09/2012	09/2062	3.375%	115	115		
971	Ice Harbor	09/2015	09/2065	3.250%	3,175	3,175		
972	John Day	09/1968	09/2018	7.280%	27,254	0		
973	John Day	09/1969	09/2019	7.270%	96,104	0		
974	John Day	09/1970	09/2020	7.250%	23,656	0		
975	John Day	09/1971	09/2021	7.230%	34,974	0		
976	John Day	09/1972	09/2022	7.210%	11,502	0		
977	John Day	09/1984	09/2022	10.750%	3,677	0		
978	John Day	09/1985	09/2022	7.210%	6,490	0		
979	John Day	09/1985	09/2022	12.375%	1,209	0		
980	John Day	09/1986	09/2022	7.210%	3,227	0		
981	John Day	09/1986	09/2022	11.375%	713	0		
982	John Day	09/1987	09/2022	7.210%	706	0		
983	John Day	09/1987	09/2022	8.875%	4,353	0		
984	John Day	09/1988	09/2022	8.500%	332	0		

TABLE 12A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
985	John Day	09/1988	09/2022	8.500%	199	0		
986	John Day	09/1989	09/2022	7.210%	30	0		
987	John Day	09/1989	09/2022	9.250%	377	0		
988	John Day	09/1990	09/2022	7.210%	37	0		
989	John Day	09/1990	09/2022	8.875%	543	0		
990	John Day	09/1991	09/2022	8.750%	13,218	0		
991	John Day	09/1991	09/2022	8.750%	144	0		
992	John Day	09/1992	09/2022	7.210%	19	0		
993	John Day	09/1992	09/2022	8.500%	95	0		
994	John Day	09/1993	09/2022	7.875%	7,810	0		
995	John Day	09/1993	09/2022	7.875%	9,585	0		
996	John Day	09/1994	09/2019	7.125%	14	0		
997	John Day	09/1994	09/2029	7.125%	1,252	0		
998	John Day	09/1995	09/2000	7.330%	2	0		
999	John Day	09/1995	09/2000	7.330%	9	0		
1000	John Day	09/1995	09/2020	7.250%	79	0		
1001	John Day	09/1995	09/2035	7.150%	22	22		
1002	John Day	09/1995	09/2035	7.150%	52	52		
1003	John Day	09/1995	09/2035	7.150%	121	121		
1004	John Day	09/1995	09/2045	7.150%	37	37		
1005	John Day	09/1995	09/2045	7.150%	608	608		
1006	John Day	09/1995	09/2045	7.150%	7,653	7,653		
1007	John Day	09/1996	09/2011	7.130%	237	0		
1008	John Day	09/1996	09/2016	7.290%	1,072	0		
1009	John Day	09/1997	09/2022	7.230%	133	0		
1010	John Day	09/1997	09/2047	7.150%	179	179		
1011	John Day	09/1999	09/2049	5.375%	3,510	3,510		
1012	John Day	09/2000	09/2050	6.125%	2,761	2,761		
1013	John Day	09/2001	09/2051	5.875%	619	619		
1014	John Day	09/2004	09/2054	5.375%	2,830	2,830		
1015	John Day	09/2005	09/2055	5.125%	2,827	2,827		
1016	John Day	09/2006	09/2056	4.500%	601	601		
1017	John Day	09/2007	09/2057	5.000%	233	233		
1018	John Day	09/2009	09/2059	4.375%	1,548	1,548		
1019	John Day	09/2010	09/2060	4.250%	356	356		
1020	John Day	09/2011	09/2061	3.750%	175	175		
1021	John Day	09/2012	09/2062	3.375%	6,161	6,161		
1022	John Day	09/2013	09/2063	2.875%	17	17		
1023	John Day	09/2015	09/2065	3.250%	163	163		
1024	Libby	09/1975	09/2025	7.160%	54,644	0		
1025	Libby	09/1976	09/2026	7.150%	153,432	0		
1026	Libby	09/1977	09/2026	7.150%	1,465	0		
1027	Libby	09/1978	09/2026	7.150%	1,465	0		
1028	Libby	09/1979	09/2026	7.150%	1,465	0		
1029	Libby	09/1980	09/2026	7.150%	1,465	0		
1030	Libby	09/1981	09/2026	7.150%	1,465	0		
1031	Libby	09/1982	09/2026	7.150%	1,465	0		
1032	Libby	09/1983	09/2026	7.150%	1,465	0		
1033	Libby	09/1984	09/2026	10.750%	104	0		
1034	Libby	09/1985	09/2026	7.150%	518	0		
1035	Libby	09/1986	09/2026	7.150%	283	0		
1036	Libby	09/1987	09/2026	7.150%	2	0		
1037	Libby	09/1988	09/2026	8.505%	35	0		
1038	Libby	09/1988	09/2038	7.150%	18,043	14,781		
1039	Libby	09/1989	09/2026	7.150%	1	0		
1040	Libby	09/1989	09/2026	9.250%	131	0		
1041	Libby	09/1990	09/2026	8.875%	11	0		
1042	Libby	09/1991	09/2026	8.750%	134	0		
1043	Libby	09/1992	09/2026	8.500%	100	0		
1044	Libby	09/1992	09/2026	8.500%	70	0		
1045	Libby	09/1993	09/2026	7.875%	600	0		
1046	Libby	09/1994	09/2029	7.125%	215	0		
1047	Libby	09/1994	09/2029	7.150%	286	152		
1048	Libby	09/1995	09/2030	7.150%	15	15		
1049	Libby	09/1995	09/2030	7.150%	41	41		
1050	Libby	09/1995	09/2030	7.150%	94	94		
1051	Libby	09/1997	09/2022	7.230%	432	0		
1052	Libby	09/1997	09/2047	7.150%	660	660		
1053	Libby	09/2001	09/2051	5.875%	5,562	5,562		
1054	Libby	09/2008	09/2058	4.875%	1,567	1,567		
1055	Libby	09/2010	09/2060	4.250%	40	40		
1056	Libby	09/2011	09/2061	3.750%	152	152		
1057	Libby	09/2012	09/2062	3.375%	16	16		
1058	Little Goose	09/1970	09/2020	7.250%	22,326	0		
1059	Little Goose	09/1971	09/2021	7.230%	42,962	0		
1060	Little Goose	09/1972	09/2021	7.230%	28	0		
1061	Little Goose	09/1973	09/2021	7.230%	29	0		
1062	Little Goose	09/1974	09/2021	7.230%	28	0		
1063	Little Goose	09/1975	09/2021	7.230%	29	0		
1064	Little Goose	09/1976	09/2021	7.230%	28	0		
1065	Little Goose	09/1977	09/2021	7.230%	29	0		
1066	Little Goose	09/1978	09/2021	7.230%	28	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1067	Little Goose	09/1978	09/2028	7.150%	49,578	49,578		
1068	Little Goose	09/1979	09/2021	7.230%	29	0		
1069	Little Goose	09/1980	09/2021	7.230%	28	0		
1070	Little Goose	09/1981	09/2021	7.230%	29	0		
1071	Little Goose	09/1982	09/2021	7.230%	28	0		
1072	Little Goose	09/1983	09/2021	7.230%	29	0		
1073	Little Goose	09/1984	09/2021	10.750%	201	0		
1074	Little Goose	09/1985	09/2021	7.230%	174	0		
1075	Little Goose	09/1985	09/2028	7.150%	47	47		
1076	Little Goose	09/1986	09/2021	7.230%	239	0		
1077	Little Goose	09/1987	09/2021	7.230%	6	0		
1078	Little Goose	09/1987	09/2021	8.875%	72	0		
1079	Little Goose	09/1988	09/2021	8.500%	12	0		
1080	Little Goose	09/1988	09/2021	8.500%	68	0		
1081	Little Goose	09/1989	09/2021	9.250%	77	0		
1082	Little Goose	09/1990	09/2021	8.875%	408	0		
1083	Little Goose	09/1990	09/2021	8.875%	21	0		
1084	Little Goose	09/1991	09/2021	8.750%	266	0		
1085	Little Goose	09/1992	09/2021	8.500%	66	0		
1086	Little Goose	09/1992	09/2021	8.500%	27	0		
1087	Little Goose	09/1993	09/2021	7.875%	276	0		
1088	Little Goose	09/1993	09/2021	7.875%	3,359	0		
1089	Little Goose	09/1994	09/2019	7.125%	37	0		
1090	Little Goose	09/1994	09/2029	7.125%	2,044	0		
1091	Little Goose	09/1995	09/2040	7.150%	17	17		
1092	Little Goose	09/1995	09/2040	7.150%	450	450		
1093	Little Goose	09/1995	09/2040	7.150%	733	733		
1094	Little Goose	09/1996	09/2046	7.150%	10	10		
1095	Little Goose	09/1996	09/2046	7.150%	10	10		
1096	Little Goose	09/1996	09/2046	7.150%	211	211		
1097	Little Goose	09/1996	09/2046	7.150%	241	241		
1098	Little Goose	09/1996	09/2046	7.150%	520	520		
1099	Little Goose	09/1996	09/2046	7.150%	3,909	3,909		
1100	Little Goose	09/1997	09/2047	7.150%	1	1		
1101	Little Goose	09/2001	09/2051	5.875%	4,608	4,608		
1102	Little Goose	09/2002	09/2052	5.500%	27	27		
1103	Little Goose	09/2003	09/2053	5.125%	146	146		
1104	Little Goose	09/2004	09/2054	5.375%	67	67		
1105	Little Goose	09/2008	09/2058	4.875%	13	13		
1106	Little Goose	09/2009	09/2059	4.375%	3,171	3,171		
1107	Little Goose	09/2010	09/2060	4.250%	30	30		
1108	Little Goose	09/2013	09/2063	2.875%	66	66		
1109	Lookout Dam	09/1955	09/2005	6.910%	34,290	0		
1110	Lookout Dam	09/1956	09/2005	6.910%	52	0		
1111	Lookout Dam	09/1957	09/2005	6.910%	51	0		
1112	Lookout Dam	09/1958	09/2005	6.910%	51	0		
1113	Lookout Dam	09/1959	09/2005	6.910%	51	0		
1114	Lookout Dam	09/1960	09/2005	6.910%	51	0		
1115	Lookout Dam	09/1961	09/2005	6.910%	52	0		
1116	Lookout Dam	09/1962	09/2005	6.910%	51	0		
1117	Lookout Dam	09/1963	09/2005	6.910%	51	0		
1118	Lookout Dam	09/1964	09/2005	6.910%	51	0		
1119	Lookout Dam	09/1965	09/2005	6.910%	51	0		
1120	Lookout Dam	09/1966	09/2005	6.910%	51	0		
1121	Lookout Dam	09/1967	09/2005	6.910%	52	0		
1122	Lookout Dam	09/1968	09/2005	6.910%	51	0		
1123	Lookout Dam	09/1969	09/2005	6.910%	51	0		
1124	Lookout Dam	09/1970	09/2005	6.910%	51	0		
1125	Lookout Dam	09/1971	09/2005	6.910%	51	0		
1126	Lookout Dam	09/1972	09/2005	6.910%	51	0		
1127	Lookout Dam	09/1973	09/2005	6.910%	52	0		
1128	Lookout Dam	09/1974	09/2005	6.910%	51	0		
1129	Lookout Dam	09/1975	09/2005	6.910%	51	0		
1130	Lookout Dam	09/1976	09/2005	6.910%	51	0		
1131	Lookout Dam	09/1977	09/2005	6.910%	51	0		
1132	Lookout Dam	09/1978	09/2005	6.910%	51	0		
1133	Lookout Dam	09/1979	09/2005	6.910%	52	0		
1134	Lookout Dam	09/1980	09/2005	6.910%	51	0		
1135	Lookout Dam	09/1981	09/2005	6.910%	51	0		
1136	Lookout Dam	09/1982	09/2005	6.910%	51	0		
1137	Lookout Dam	09/1983	09/2005	6.910%	51	0		
1138	Lookout Dam	09/1984	09/2005	10.750%	185	0		
1139	Lookout Dam	09/1985	09/2005	6.910%	52	0		
1140	Lookout Dam	09/1986	09/2005	6.910%	42	0		
1141	Lookout Dam	09/1987	09/2005	6.910%	9	0		
1142	Lookout Dam	09/1987	09/2005	8.875%	12	0		
1143	Lookout Dam	09/1988	09/2005	8.500%	46	0		
1144	Lookout Dam	09/1988	09/2005	8.500%	17	0		
1145	Lookout Dam	09/1989	09/2005	9.250%	23	0		
1146	Lookout Dam	09/1990	09/2005	8.875%	147	0		
1147	Lookout Dam	09/1990	09/2005	8.875%	4	0		
1148	Lookout Dam	09/1991	09/2005	8.750%	6	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1149	Lookout Dam	09/1991	09/2005	8.750%	50	0		
1150	Lookout Dam	09/1992	09/2005	8.500%	181	0		
1151	Lookout Dam	09/1992	09/2005	8.500%	4	0		
1152	Lookout Dam	09/1993	09/2005	7.875%	18	0		
1153	Lookout Dam	09/1993	09/2005	7.875%	189	0		
1154	Lookout Dam	09/1994	09/2019	7.125%	73	0		
1155	Lookout Dam	09/1995	09/2045	7.150%	80	39		
1156	Lookout Dam	09/1995	09/2045	7.150%	33	33		
1157	Lookout Dam	09/1995	09/2045	7.860%	9	0		
1158	Lookout Dam	09/1995	09/2045	7.860%	15	0		
1159	Lookout Dam	09/1995	09/2045	7.860%	31	0		
1160	Lookout Dam	09/1995	09/2045	7.860%	157	0		
1161	Lookout Dam	09/2000	09/2050	6.125%	5,098	5,098		
1162	Lookout Dam	09/2003	09/2053	5.125%	135	135		
1163	Lookout Dam	09/2005	09/2055	5.125%	7,355	7,355		
1164	Lookout Dam	09/2007	09/2057	5.000%	572	572		
1165	Lookout Dam	09/2011	09/2061	3.750%	17	17		
1166	Lookout Dam	09/2012	09/2062	3.375%	294	294		
1167	Lost Creek	09/1977	09/2027	7.150%	14,293	11,934		
1168	Lost Creek	09/1978	09/2027	7.150%	58	58		
1169	Lost Creek	09/1979	09/2027	7.150%	60	60		
1170	Lost Creek	09/1980	09/2027	7.150%	60	60		
1171	Lost Creek	09/1981	09/2027	7.150%	60	60		
1172	Lost Creek	09/1982	09/2027	7.150%	60	60		
1173	Lost Creek	09/1983	09/2027	7.150%	60	60		
1174	Lost Creek	09/1984	09/2027	10.750%	243	0		
1175	Lost Creek	09/1985	09/2027	7.150%	12	12		
1176	Lost Creek	09/1986	09/2027	7.150%	6	6		
1177	Lost Creek	09/1986	09/2027	11.375%	5	0		
1178	Lost Creek	09/1987	09/2027	7.150%	4	4		
1179	Lost Creek	09/1987	09/2027	8.875%	3	0		
1180	Lost Creek	09/1988	09/2027	8.500%	7	0		
1181	Lost Creek	09/1989	09/2027	9.250%	9	0		
1182	Lost Creek	09/1990	09/2027	8.875%	1	0		
1183	Lost Creek	09/1991	09/2027	8.750%	31	0		
1184	Lost Creek	09/1992	09/2027	8.500%	1	0		
1185	Lost Creek	09/1992	09/2027	8.500%	1	0		
1186	Lost Creek	09/1993	09/2027	7.875%	1	0		
1187	Lost Creek	09/1993	09/2027	7.875%	14	0		
1188	Lost Creek	09/1995	09/2000	7.330%	4	0		
1189	Lost Creek	09/1995	09/2045	7.150%	94	94		
1190	Lost Creek	09/1996	09/2031	7.150%	31	31		
1191	Lost Creek	09/1996	09/2046	7.150%	24	24		
1192	Lost Creek	09/2001	09/2051	5.875%	147	147		
1193	Lost Creek	09/2011	09/2061	3.750%	7	7		
1194	Lower Granite	09/1975	09/2025	7.160%	119,237	0		
1195	Lower Granite	09/1976	09/2025	7.160%	510	0		
1196	Lower Granite	09/1977	09/2025	7.160%	510	0		
1197	Lower Granite	09/1978	09/2025	7.160%	510	0		
1198	Lower Granite	09/1978	09/2028	7.150%	40,611	40,611		
1199	Lower Granite	09/1979	09/2025	7.160%	510	0		
1200	Lower Granite	09/1980	09/2025	7.160%	510	0		
1201	Lower Granite	09/1981	09/2025	7.160%	510	0		
1202	Lower Granite	09/1982	09/2025	7.160%	510	0		
1203	Lower Granite	09/1983	09/2025	7.160%	510	0		
1204	Lower Granite	09/1984	09/2025	10.750%	311	0		
1205	Lower Granite	09/1985	09/2025	7.160%	328	0		
1206	Lower Granite	09/1986	09/2025	7.160%	215	0		
1207	Lower Granite	09/1986	09/2025	11.375%	4	0		
1208	Lower Granite	09/1987	09/2025	7.160%	8	0		
1209	Lower Granite	09/1987	09/2025	8.875%	60	0		
1210	Lower Granite	09/1988	09/2025	8.500%	22	0		
1211	Lower Granite	09/1988	09/2025	8.500%	95	0		
1212	Lower Granite	09/1989	09/2025	9.250%	112	0		
1213	Lower Granite	09/1990	09/2025	8.875%	392	0		
1214	Lower Granite	09/1991	09/2025	8.750%	281	0		
1215	Lower Granite	09/1991	09/2025	8.750%	6	0		
1216	Lower Granite	09/1992	09/2025	8.500%	83	0		
1217	Lower Granite	09/1992	09/2025	8.500%	121	0		
1218	Lower Granite	09/1993	09/2025	7.875%	26	0		
1219	Lower Granite	09/1993	09/2025	7.875%	3,272	0		
1220	Lower Granite	09/1994	09/2019	7.125%	38	0		
1221	Lower Granite	09/1994	09/2029	7.150%	3,543	1,551		
1222	Lower Granite	09/1995	09/2017	7.290%	77	0		
1223	Lower Granite	09/1995	09/2017	7.290%	388	0		
1224	Lower Granite	09/1995	09/2017	7.290%	458	0		
1225	Lower Granite	09/1995	09/2025	7.160%	96	0		
1226	Lower Granite	09/1996	09/2011	7.130%	255	0		
1227	Lower Granite	09/1996	09/2031	7.150%	206	206		
1228	Lower Granite	09/1996	09/2046	7.150%	9	9		
1229	Lower Granite	09/1996	09/2046	7.150%	625	625		
1230	Lower Granite	09/1997	09/2047	7.150%	677	677		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1231	Lower Granite	09/1999	09/2049	5.375%	856	856		
1232	Lower Granite	09/2001	09/2051	5.875%	2,025	2,025		
1233	Lower Granite	09/2002	09/2052	5.500%	1,275	1,275		
1234	Lower Granite	09/2003	09/2053	5.125%	42	42		
1235	Lower Granite	09/2005	09/2055	5.125%	393	393		
1236	Lower Granite	09/2008	09/2058	4.875%	24	24		
1237	Lower Granite	09/2009	09/2059	4.375%	5,669	5,669		
1238	Lower Granite	09/2010	09/2060	4.250%	1,156	1,156		
1239	Lower Granite	09/2011	09/2061	3.750%	8	8		
1240	Lower Granite	09/2014	09/2064	3.875%	2,644	2,644		
1241	Lower Granite	09/2015	09/2065	3.250%	1,599	1,599		
1242	Lower Monument	09/1969	09/2019	7.270%	26,974	0		
1243	Lower Monument	09/1970	09/2020	7.250%	51,218	0		
1244	Lower Monument	09/1971	09/2020	7.250%	214	0		
1245	Lower Monument	09/1972	09/2020	7.250%	214	0		
1246	Lower Monument	09/1973	09/2020	7.250%	214	0		
1247	Lower Monument	09/1974	09/2020	7.250%	214	0		
1248	Lower Monument	09/1975	09/2020	7.250%	214	0		
1249	Lower Monument	09/1976	09/2020	7.250%	214	0		
1250	Lower Monument	09/1977	09/2020	7.250%	214	0		
1251	Lower Monument	09/1978	09/2020	7.250%	214	0		
1252	Lower Monument	09/1979	09/2020	7.250%	214	0		
1253	Lower Monument	09/1979	09/2029	7.150%	40,669	40,669		
1254	Lower Monument	09/1980	09/2020	7.250%	214	0		
1255	Lower Monument	09/1981	09/2020	7.250%	214	0		
1256	Lower Monument	09/1982	09/2020	7.250%	214	0		
1257	Lower Monument	09/1983	09/2020	7.250%	214	0		
1258	Lower Monument	09/1985	09/2020	7.250%	8	0		
1259	Lower Monument	09/1985	09/2029	7.150%	256	256		
1260	Lower Monument	09/1986	09/2020	7.250%	132	0		
1261	Lower Monument	09/1987	09/2020	7.250%	3	0		
1262	Lower Monument	09/1987	09/2020	8.875%	50	0		
1263	Lower Monument	09/1988	09/2020	8.500%	1	0		
1264	Lower Monument	09/1988	09/2020	8.500%	58	0		
1265	Lower Monument	09/1989	09/2020	9.250%	93	0		
1266	Lower Monument	09/1990	09/2020	8.875%	358	0		
1267	Lower Monument	09/1991	09/2020	8.750%	594	0		
1268	Lower Monument	09/1992	09/2020	8.500%	4,484	0		
1269	Lower Monument	09/1993	09/2020	7.875%	24	0		
1270	Lower Monument	09/1993	09/2020	7.875%	2,175	0		
1271	Lower Monument	09/1994	09/2019	7.125%	107	0		
1272	Lower Monument	09/1994	09/2029	7.125%	2,167	0		
1273	Lower Monument	09/1995	09/2000	7.330%	6	0		
1274	Lower Monument	09/1995	09/2045	7.150%	41	41		
1275	Lower Monument	09/1995	09/2045	7.150%	99	99		
1276	Lower Monument	09/1995	09/2045	7.150%	624	624		
1277	Lower Monument	09/1995	09/2045	7.150%	1,122	1,122		
1278	Lower Monument	09/1996	09/2016	7.290%	668	0		
1279	Lower Monument	09/1996	09/2021	7.230%	37	0		
1280	Lower Monument	09/1996	09/2021	7.230%	51	0		
1281	Lower Monument	09/1996	09/2036	7.150%	264	264		
1282	Lower Monument	09/1996	09/2046	7.150%	10	10		
1283	Lower Monument	09/2001	09/2051	5.875%	3,301	3,301		
1284	Lower Monument	09/2002	09/2052	5.500%	29	29		
1285	Lower Monument	09/2003	09/2053	5.125%	22	22		
1286	Lower Monument	09/2004	09/2054	5.375%	3,423	3,423		
1287	Lower Monument	09/2005	09/2055	5.125%	527	527		
1288	Lower Monument	09/2006	09/2056	4.500%	285	285		
1289	Lower Monument	09/2008	09/2058	4.875%	9	9		
1290	Lower Monument	09/2009	09/2059	4.375%	2,332	2,332		
1291	Lower Monument	09/2012	09/2062	3.375%	89	89		
1292	Lower Monument	09/2014	09/2064	3.875%	1,430	1,430		
1293	Lower Snake Fish and Wildlife	09/1983	09/2033	7.150%	30,488	9,472		
1294	Lower Snake Fish and Wildlife	09/1985	09/2035	7.150%	47,921	47,921		
1295	Lower Snake Fish and Wildlife	09/1987	09/2037	7.150%	72,536	72,536		
1296	Lower Snake Fish and Wildlife	09/1988	09/2038	7.150%	805	805		
1297	Lower Snake Fish and Wildlife	09/1990	09/2040	7.150%	1,557	1,557		
1298	Lower Snake Fish and Wildlife	09/1991	09/2041	7.150%	4,411	4,411		
1299	Lower Snake Fish and Wildlife	09/1993	09/2043	7.150%	71,632	71,632		
1300	Lower Snake Fish and Wildlife	09/1994	09/2044	7.150%	4,722	4,722		
1301	Lower Snake Fish and Wildlife	09/1996	09/2046	7.150%	12,085	12,085		
1302	Lower Snake Fish and Wildlife	09/1997	09/2047	7.150%	2,173	2,173		
1303	Lower Snake Fish and Wildlife	09/1999	09/2049	5.375%	7	7		
1304	Lower Snake Fish and Wildlife	09/2000	09/2050	6.125%	1,529	1,529		
1305	Lower Snake Fish and Wildlife	09/2001	09/2051	5.875%	325	325		
1306	Lower Snake Fish and Wildlife	09/2002	09/2052	5.500%	890	890		
1307	Lower Snake Fish and Wildlife	09/2003	09/2053	5.125%	98	98		
1308	Lower Snake Fish and Wildlife	09/2004	09/2054	5.375%	230	230		
1309	Lower Snake Fish and Wildlife	09/2005	09/2055	5.125%	4	4		
1310	Lower Snake Fish and Wildlife	09/2006	09/2056	4.500%	379	379		
1311	Lower Snake Fish and Wildlife	09/2008	09/2058	4.875%	74	74		
1312	Lower Snake Fish and Wildlife	09/2009	09/2059	4.375%	1,540	1,540		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1313	Lower Snake Fish and Wildlife	09/2010	09/2060	4.250%	6	6		
1314	Lower Snake Fish and Wildlife	09/2011	09/2061	3.750%	122	122		
1315	Lower Snake Fish and Wildlife	09/2014	09/2064	3.875%	222	222		
1316	McNary	09/1954	09/2004	6.880%	80,256	0		
1317	McNary	09/1955	09/2005	6.910%	53,493	0		
1318	McNary	09/1956	09/2006	6.950%	38,748	0		
1319	McNary	09/1957	09/2007	6.980%	24,985	0		
1320	McNary	09/1958	09/2007	6.980%	468	0		
1321	McNary	09/1959	09/2007	6.980%	468	0		
1322	McNary	09/1960	09/2007	6.980%	468	0		
1323	McNary	09/1961	09/2007	6.980%	468	0		
1324	McNary	09/1962	09/2007	6.980%	467	0		
1325	McNary	09/1963	09/2007	6.980%	468	0		
1326	McNary	09/1964	09/2007	6.980%	468	0		
1327	McNary	09/1965	09/2007	6.980%	468	0		
1328	McNary	09/1966	09/2007	6.980%	468	0		
1329	McNary	09/1967	09/2007	6.980%	467	0		
1330	McNary	09/1968	09/2007	6.980%	468	0		
1331	McNary	09/1969	09/2007	6.980%	468	0		
1332	McNary	09/1970	09/2007	6.980%	468	0		
1333	McNary	09/1971	09/2007	6.980%	468	0		
1334	McNary	09/1972	09/2007	6.980%	468	0		
1335	McNary	09/1973	09/2007	6.980%	467	0		
1336	McNary	09/1974	09/2007	6.980%	468	0		
1337	McNary	09/1975	09/2007	6.980%	468	0		
1338	McNary	09/1976	09/2007	6.980%	468	0		
1339	McNary	09/1977	09/2007	6.980%	467	0		
1340	McNary	09/1978	09/2007	6.980%	468	0		
1341	McNary	09/1979	09/2007	6.980%	468	0		
1342	McNary	09/1980	09/2007	6.980%	468	0		
1343	McNary	09/1981	09/2007	6.980%	468	0		
1344	McNary	09/1982	09/2007	6.980%	467	0		
1345	McNary	09/1983	09/2007	6.980%	468	0		
1346	McNary	09/1985	09/2007	6.980%	557	0		
1347	McNary	09/1986	09/2007	6.980%	454	0		
1348	McNary	09/1987	09/2007	6.980%	24	0		
1349	McNary	09/1995	09/2010	7.090%	509	0		
1350	McNary	09/1995	09/2045	7.150%	16	16		
1351	McNary	09/1996	09/2006	6.950%	778	0		
1352	McNary	09/1996	09/2011	7.130%	3	0		
1353	McNary	09/1996	09/2026	7.150%	74	0		
1354	McNary	09/1996	09/2026	7.150%	277	0		
1355	McNary	09/1996	09/2046	7.150%	619	619		
1356	McNary	09/1997	09/2032	7.150%	30	30		
1357	McNary	09/2001	09/2051	5.875%	1,046	1,046		
1358	McNary	09/2003	09/2053	5.125%	97	97		
1359	McNary	09/2004	09/2054	5.375%	6,138	6,138		
1360	McNary	09/2005	09/2055	5.125%	550	550		
1361	McNary	09/2006	09/2056	4.500%	4,080	4,080		
1362	McNary	09/2008	09/2058	4.875%	215	215		
1363	McNary	09/2011	09/2061	3.750%	565	565		
1364	McNary	09/2012	09/2062	3.375%	11	11		
1365	McNary	09/2013	09/2063	2.875%	1,000	1,000		
1366	McNary	09/2014	09/2064	3.875%	759	759		
1367	Minidoka/Palisades	09/1909	09/1959	3.000%	854	0		
1368	Minidoka/Palisades	09/1909	09/1959	3.000%	226	0		
1369	Minidoka/Palisades	09/1910	09/1960	3.000%	1,709	0		
1370	Minidoka/Palisades	09/1910	09/1960	3.000%	451	0		
1371	Minidoka/Palisades	09/1911	09/1961	3.000%	1,709	0		
1372	Minidoka/Palisades	09/1911	09/1961	3.000%	451	0		
1373	Minidoka/Palisades	09/1927	09/1977	3.000%	854	0		
1374	Minidoka/Palisades	09/1927	09/1977	3.000%	226	0		
1375	Minidoka/Palisades	09/1942	09/1992	3.000%	854	0		
1376	Minidoka/Palisades	09/1942	09/1992	3.000%	226	0		
1377	Minidoka/Palisades	09/1957	09/2007	3.000%	2,561	0		
1378	Minidoka/Palisades	09/1957	09/2007	3.000%	677	0		
1379	Minidoka/Palisades	09/1958	09/2008	3.000%	854	0		
1380	Minidoka/Palisades	09/1958	09/2008	3.000%	226	0		
1381	Minidoka/Palisades	09/1959	09/2008	3.000%	108	0		
1382	Minidoka/Palisades	09/1959	09/2008	3.000%	28	0		
1383	Minidoka/Palisades	09/1960	09/2008	3.000%	108	0		
1384	Minidoka/Palisades	09/1960	09/2008	3.000%	29	0		
1385	Minidoka/Palisades	09/1961	09/2008	3.000%	108	0		
1386	Minidoka/Palisades	09/1961	09/2008	3.000%	29	0		
1387	Minidoka/Palisades	09/1962	09/2008	3.000%	108	0		
1388	Minidoka/Palisades	09/1962	09/2008	3.000%	28	0		
1389	Minidoka/Palisades	09/1963	09/2008	3.000%	108	0		
1390	Minidoka/Palisades	09/1963	09/2008	3.000%	29	0		
1391	Minidoka/Palisades	09/1964	09/2008	3.000%	108	0		
1392	Minidoka/Palisades	09/1964	09/2008	3.000%	28	0		
1393	Minidoka/Palisades	09/1965	09/2008	3.000%	108	0		
1394	Minidoka/Palisades	09/1965	09/2008	3.000%	29	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1395	Minidoka/Palisades	09/1966	09/2008	3.000%	108	0		
1396	Minidoka/Palisades	09/1966	09/2008	3.000%	29	0		
1397	Minidoka/Palisades	09/1967	09/2008	3.000%	108	0		
1398	Minidoka/Palisades	09/1967	09/2008	3.000%	28	0		
1399	Minidoka/Palisades	09/1968	09/2008	3.000%	108	0		
1400	Minidoka/Palisades	09/1968	09/2008	3.000%	29	0		
1401	Minidoka/Palisades	09/1969	09/2008	3.000%	3	0		
1402	Minidoka/Palisades	09/1969	09/2008	3.000%	28	0		
1403	Minidoka/Palisades	09/1970	09/2008	3.000%	108	0		
1404	Minidoka/Palisades	09/1970	09/2008	3.000%	29	0		
1405	Minidoka/Palisades	09/1971	09/2008	3.000%	108	0		
1406	Minidoka/Palisades	09/1971	09/2008	3.000%	29	0		
1407	Minidoka/Palisades	09/1972	09/2008	3.000%	108	0		
1408	Minidoka/Palisades	09/1972	09/2008	3.000%	28	0		
1409	Minidoka/Palisades	09/1973	09/2008	3.000%	108	0		
1410	Minidoka/Palisades	09/1973	09/2008	3.000%	29	0		
1411	Minidoka/Palisades	09/1974	09/2008	3.000%	108	0		
1412	Minidoka/Palisades	09/1974	09/2008	3.000%	28	0		
1413	Minidoka/Palisades	09/1975	09/2008	3.000%	108	0		
1414	Minidoka/Palisades	09/1975	09/2008	3.000%	29	0		
1415	Minidoka/Palisades	09/1976	09/2008	3.000%	108	0		
1416	Minidoka/Palisades	09/1976	09/2008	3.000%	29	0		
1417	Minidoka/Palisades	09/1977	09/2008	7.020%	83	0		
1418	Minidoka/Palisades	09/1977	09/2008	7.020%	28	0		
1419	Minidoka/Palisades	09/1978	09/2008	7.020%	75	0		
1420	Minidoka/Palisades	09/1978	09/2008	7.020%	20	0		
1421	Minidoka/Palisades	09/1979	09/2008	7.020%	75	0		
1422	Minidoka/Palisades	09/1979	09/2008	7.020%	19	0		
1423	Minidoka/Palisades	09/1980	09/2008	7.020%	75	0		
1424	Minidoka/Palisades	09/1980	09/2008	7.020%	20	0		
1425	Minidoka/Palisades	09/1981	09/2008	7.020%	75	0		
1426	Minidoka/Palisades	09/1981	09/2008	7.020%	20	0		
1427	Minidoka/Palisades	09/1982	09/2008	7.020%	75	0		
1428	Minidoka/Palisades	09/1982	09/2008	7.020%	19	0		
1429	Minidoka/Palisades	09/1983	09/2008	7.020%	65	0		
1430	Minidoka/Palisades	09/1983	09/2008	7.020%	20	0		
1431	Minidoka/Palisades	09/1984	09/2008	10.075%	44	0		
1432	Minidoka/Palisades	09/1984	09/2008	10.075%	11	0		
1433	Minidoka/Palisades	09/1985	09/2008	7.020%	21	0		
1434	Minidoka/Palisades	09/1986	09/2008	7.020%	21	0		
1435	Minidoka/Palisades	09/1986	09/2008	11.375%	48	0		
1436	Minidoka/Palisades	09/1987	09/2008	7.020%	16	0		
1437	Minidoka/Palisades	09/1988	09/2008	8.500%	31	0		
1438	Minidoka/Palisades	09/1989	09/2008	9.250%	20	0		
1439	Minidoka/Palisades	09/1990	09/2008	8.875%	33	0		
1440	Minidoka/Palisades	09/1991	09/2008	8.750%	62	0		
1441	Minidoka/Palisades	09/1991	09/2008	8.750%	11	0		
1442	Minidoka/Palisades	09/1991	09/2008	8.750%	32	0		
1443	Minidoka/Palisades	09/1992	09/2008	8.500%	6	0		
1444	Minidoka/Palisades	09/1994	09/2029	7.125%	351	0		
1445	Minidoka/Palisades	09/1995	09/2000	7.330%	6	0		
1446	Minidoka/Palisades	09/1995	09/2010	7.890%	40	0		
1447	Minidoka/Palisades	09/1996	09/2011	7.130%	54	0		
1448	Minidoka/Palisades	09/1997	09/2007	6.950%	66	0		
1449	Minidoka/Palisades	09/1997	09/2047	7.150%	50,911	50,911		
1450	Minidoka/Palisades	09/2001	09/2051	5.875%	42	42		
1451	Minidoka/Palisades	09/2012	09/2062	3.375%	7	7		
1452	Minidoka/Palisades	09/2015	09/2065	3.250%	19,237	19,237		
1453	RRP - Green Springs	09/2001	09/2051	5.875%	11,145	11,145		
1454	RRP - Green Springs	09/2012	09/2062	3.375%	2	2		
1455	RRP - Green Springs	09/2013	09/2063	2.875%	1	1		
1456	The Dalles	09/1957	09/2007	2.500%	15,908	0		
1457	The Dalles	09/1958	09/2008	7.020%	45,837	0		
1458	The Dalles	09/1959	09/2009	7.060%	40,415	0		
1459	The Dalles	09/1960	09/2010	7.090%	39,179	0		
1460	The Dalles	09/1961	09/2011	7.130%	9,492	0		
1461	The Dalles	09/1962	09/2011	7.130%	56	0		
1462	The Dalles	09/1963	09/2011	7.130%	57	0		
1463	The Dalles	09/1964	09/2011	7.130%	57	0		
1464	The Dalles	09/1965	09/2011	7.130%	56	0		
1465	The Dalles	09/1966	09/2011	7.130%	57	0		
1466	The Dalles	09/1967	09/2011	7.130%	57	0		
1467	The Dalles	09/1968	09/2011	7.130%	56	0		
1468	The Dalles	09/1969	09/2011	7.130%	57	0		
1469	The Dalles	09/1970	09/2011	7.130%	57	0		
1470	The Dalles	09/1971	09/2011	7.130%	56	0		
1471	The Dalles	09/1972	09/2011	7.130%	57	0		
1472	The Dalles	09/1973	09/2011	7.130%	57	0		
1473	The Dalles	09/1973	09/2023	7.190%	21,983	0		
1474	The Dalles	09/1974	09/2011	7.130%	56	0		
1475	The Dalles	09/1974	09/2024	7.170%	7,268	0		
1476	The Dalles	09/1975	09/2011	7.130%	57	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1477	The Dalles	09/1976	09/2011	7.130%	57	0		
1478	The Dalles	09/1977	09/2011	7.130%	56	0		
1479	The Dalles	09/1978	09/2011	7.130%	57	0		
1480	The Dalles	09/1979	09/2011	7.130%	57	0		
1481	The Dalles	09/1980	09/2011	7.130%	56	0		
1482	The Dalles	09/1981	09/2011	7.130%	57	0		
1483	The Dalles	09/1982	09/2011	7.130%	57	0		
1484	The Dalles	09/1983	09/2011	7.130%	56	0		
1485	The Dalles	09/1984	09/2011	10.750%	961	0		
1486	The Dalles	09/1985	09/2011	7.130%	95	0		
1487	The Dalles	09/1985	09/2011	12.375%	280	0		
1488	The Dalles	09/1986	09/2011	7.130%	95	0		
1489	The Dalles	09/1986	09/2011	11.375%	4	0		
1490	The Dalles	09/1987	09/2011	7.130%	1,417	0		
1491	The Dalles	09/1987	09/2011	8.875%	81	0		
1492	The Dalles	09/1988	09/2011	8.500%	685	0		
1493	The Dalles	09/1988	09/2011	8.500%	1	0		
1494	The Dalles	09/1989	09/2011	9.250%	898	0		
1495	The Dalles	09/1990	09/2011	8.875%	319	0		
1496	The Dalles	09/1990	09/2011	8.875%	745	0		
1497	The Dalles	09/1991	09/2011	8.750%	89	0		
1498	The Dalles	09/1991	09/2011	8.750%	2,452	0		
1499	The Dalles	09/1992	09/2011	8.500%	57	0		
1500	The Dalles	09/1992	09/2011	8.500%	130	0		
1501	The Dalles	09/1993	09/2011	7.875%	2,028	0		
1502	The Dalles	09/1993	09/2011	7.875%	2,929	0		
1503	The Dalles	09/1994	09/2029	7.125%	1,425	0		
1504	The Dalles	09/1996	09/2008	7.020%	196	0		
1505	The Dalles	09/1996	09/2011	7.130%	457	0		
1506	The Dalles	09/1996	09/2046	7.150%	1,991	1,991		
1507	The Dalles	09/2000	09/2050	6.125%	2,588	2,588		
1508	The Dalles	09/2002	09/2052	5.500%	1,226	1,226		
1509	The Dalles	09/2004	09/2054	5.375%	182	182		
1510	The Dalles	09/2005	09/2055	5.125%	36,019	36,019		
1511	The Dalles	09/2006	09/2056	4.500%	2,030	2,030		
1512	The Dalles	09/2007	09/2057	5.000%	140	140		
1513	The Dalles	09/2008	09/2058	4.875%	1,651	1,651		
1514	The Dalles	09/2015	09/2065	3.250%	456	456		
1515	Yakima Chandler/Kenniwick	09/1956	09/2022	7.210%	1,068	0		
1516	Yakima Chandler/Kenniwick	09/1956	09/2022	7.210%	481	0		
1517	Yakima Chandler/Kenniwick	09/1959	09/2022	7.210%	1	0		
1518	Yakima Chandler/Kenniwick	09/1960	09/2022	7.210%	1	0		
1519	Yakima Chandler/Kenniwick	09/1961	09/2022	7.210%	1	0		
1520	Yakima Chandler/Kenniwick	09/1984	09/2022	10.750%	35	0		
1521	Yakima Chandler/Kenniwick	09/1984	09/2022	10.750%	10	0		
1522	Yakima Chandler/Kenniwick	09/1985	09/2022	12.375%	357	0		
1523	Yakima Chandler/Kenniwick	09/1986	09/2022	7.210%	439	0		
1524	Yakima Chandler/Kenniwick	09/1986	09/2022	11.375%	7	0		
1525	Yakima Chandler/Kenniwick	09/1987	09/2022	8.875%	126	0		
1526	Yakima Chandler/Kenniwick	09/1989	09/2022	9.250%	18	0		
1527	Yakima Chandler/Kenniwick	09/1990	09/2022	8.875%	40	0		
1528	Yakima Chandler/Kenniwick	09/1991	09/2022	8.750%	109	0		
1529	Yakima Chandler/Kenniwick	09/2005	09/2055	5.125%	833	833		
1530	Yakima Chandler/Kenniwick	09/2009	09/2059	4.375%	15	15		
1531	Yakima Roza	09/1958	09/2008	7.020%	1,194	0		
1532	Yakima Roza	09/1958	09/2008	7.020%	383	0		
1533	Yakima Roza	09/1984	09/2008	10.750%	5	0		
1534	Yakima Roza	09/1984	09/2008	10.750%	17	0		
1535	Yakima Roza	09/1985	09/2008	7.020%	69	0		
1536	Yakima Roza	09/1985	09/2008	12.375%	5	0		
1537	Yakima Roza	09/1986	09/2008	7.020%	6	0		
1538	Yakima Roza	09/1987	09/2008	7.020%	2	0		
1539	Yakima Roza	09/1987	09/2008	8.875%	9	0		
1540	Yakima Roza	09/2001	09/2051	5.875%	15	14		
1541	Bureau Direct	05/1995	05/2015	7.500%	35,000	0		
1542	Bureau Direct	05/1997	05/2000	6.500%	50,000	0		
1543	Bureau Direct	04/1998	05/2008	6.000%	25,000	0		
1544	Bureau Direct	09/1999	09/2004	6.400%	20,000	0		
1545	Bureau Direct	04/2000	04/2003	6.850%	40,000	0		
1546	Bureau Direct	09/2000	09/2005	6.700%	20,000	0		
1547	Bureau Direct	06/2001	06/2004	4.750%	50,000	0		
1548	Bureau Direct	03/2002	03/2005	4.600%	30,000	0		
1549	Bureau Direct	09/2002	09/2006	3.050%	20,000	0		
1550	Bureau Direct	12/2002	12/2006	3.050%	40,000	0		
1551	Bureau Direct	04/2003	04/2006	2.400%	40,000	0		
1552	Bureau Direct	04/2003	04/2006	2.400%	25,000	0		
1553	Bureau Direct	07/2003	07/2006	2.300%	30,000	0		
1554	Bureau Direct	09/2003	09/2006	2.500%	25,000	0		
1555	Bureau Direct	01/2004	01/2007	2.500%	25,000	0		
1556	Bureau Direct	04/2004	04/2007	2.950%	35,000	0		
1557	Bureau Direct	07/2004	07/2007	3.450%	25,000	0		
1558	Bureau Direct	09/2004	09/2007	3.100%	30,000	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1559	Bureau Direct	11/2004	11/2007	3.500%	20,000	0		
1560	Bureau Direct	01/2005	01/2008	3.600%	20,000	0		
1561	Bureau Direct	06/2005	06/2008	3.950%	30,000	0		
1562	Bureau Direct	09/2005	09/2008	4.250%	25,000	0		
1563	Bureau Direct	03/2006	03/2009	5.050%	25,000	0		
1564	Bureau Direct	07/2006	07/2009	5.350%	45,000	0		
1565	Bureau Direct	09/2006	09/2009	4.950%	15,000	0		
1566	Bureau Direct	01/2007	01/2010	5.100%	35,000	0		
1567	Bureau Direct	03/2007	03/2010	4.800%	30,000	0		
1568	Bureau Direct	06/2007	06/2010	5.350%	30,000	0		
1569	Bureau Direct	01/2008	01/2011	2.850%	35,000	0		
1570	Bureau Direct	01/2008	01/2011	2.850%	20,000	0		
1571	Bureau Direct	05/2008	05/2011	3.358%	35,000	0		
1572	Bureau Direct	05/2008	05/2011	3.358%	25,000	0		
1573	Bureau Direct	06/2008	06/2012	3.974%	30,000	0		
1574	Bureau Direct	07/2008	07/2012	3.913%	35,000	0		
1575	Bureau Direct	09/2008	09/2012	3.444%	35,000	0		
1576	Bureau Direct	01/2009	01/2021	3.999%	25,000	25,000		
1577	Bureau Direct	04/2009	04/2023	4.391%	25,000	25,000	04/2032	4.052%
1578	Bureau Direct	06/2009	06/2039	5.192%	25,000	25,000		
1579	Bureau Direct	09/2009	09/2019	3.699%	25,000	25,000	09/2030	4.136%
1580	Bureau Direct	10/2009	10/2018	3.719%	24,000	24,000		
1581	Bureau Direct	10/2009	10/2019	3.842%	20,000	20,000		
1582	Bureau Direct	11/2009	11/2019	3.637%	7,000	7,000		
1583	Bureau Direct	12/2009	12/2019	4.194%	13,000	13,000		
1584	Bureau Direct	01/2010	01/2019	3.714%	10,000	10,000	01/2030	4.136%
1585	Bureau Direct	02/2010	02/2019	0.165%	10,000	0		
1586	Bureau Direct	03/2010	03/2020	4.083%	30,000	30,000		
1587	Bureau Direct	04/2010	04/2020	3.973%	18,000	18,000		
1588	Bureau Direct	05/2010	05/2020	3.574%	15,000	15,000		
1589	Bureau Direct	06/2010	06/2020	3.243%	10,000	10,000	06/2031	4.136%
1590	Bureau Direct	06/2010	06/2020	3.243%	30,000	30,000	06/2031	4.136%
1591	Bureau Direct	07/2010	07/2020	3.118%	17,000	17,000		
1592	Bureau Direct	08/2010	08/2020	0.165%	5,000	0		
1593	Bureau Direct	09/2010	09/2021	2.883%	22,000	22,000		
1594	Bureau Direct	10/2010	10/2034	4.211%	20,000	20,000		
1595	Bureau Direct	01/2011	09/2011	0.244%	20,000	0		
1596	Bureau Direct	01/2011	09/2011	0.244%	35,000	0		
1597	Bureau Direct	01/2011	01/2039	5.040%	35,000	35,000		
1598	Bureau Direct	02/2011	02/2040	4.995%	50,000	50,000		
1599	Bureau Direct	05/2011	09/2011	0.076%	35,000	0		
1600	Bureau Direct	05/2011	09/2011	0.076%	25,000	0		
1601	Bureau Direct	06/2011	06/2036	4.629%	30,000	30,000		
1602	Bureau Direct	06/2011	06/2038	4.700%	30,000	30,000		
1603	Bureau Direct	08/2011	08/2037	4.208%	30,000	30,000		
1604	Bureau Direct	09/2011	07/2041	3.825%	30,000	0		
1605	Bureau Direct	12/2011	12/2038	3.880%	35,000	0		
1606	Bureau Direct	01/2012	01/2038	3.893%	15,000	0		
1607	Bureau Direct	02/2012	02/2034	0.515%	55,000	55,000		
1608	Bureau Direct	06/2012	06/2041	3.666%	50,000	0		
1609	Bureau Direct	06/2012	09/2012	0.119%	30,000	0		
1610	Bureau Direct	08/2012	07/2042	3.834%	44,000	0		
1611	Bureau Direct	09/2012	09/2013	0.174%	35,000	0		
1612	Bureau Direct	09/2012	09/2042	3.668%	25,000	0		
1613	Bureau Direct	01/2013	01/2043	6.194%	70,000	0		
1614	Bureau Direct	02/2013	02/2043	5.993%	18,000	0		
1615	Bureau Direct	03/2013	03/2043	5.958%	15,000	0		
1616	Bureau Direct	04/2013	04/2043	5.633%	15,000	0		
1617	Bureau Direct	05/2013	05/2043	6.192%	18,000	0		
1618	Bureau Direct	06/2013	01/2039	0.505%	35,000	35,000		
1619	Bureau Direct	06/2013	06/2043	6.938%	21,000	0		
1620	Bureau Direct	07/2013	07/2034	7.164%	25,000	0		
1621	Bureau Direct	08/2013	08/2034	7.413%	15,000	0		
1622	Bureau Direct	11/2013	09/2014	0.140%	77,000	0		
1623	Bureau Direct	11/2013	09/2021	2.812%	50,000	50,000		
1624	Bureau Direct	11/2013	09/2022	3.125%	19,000	19,000		
1625	Bureau Direct	11/2013	09/2020	2.473%	51,000	51,000	09/2031	4.136%
1626	Bureau Direct	01/2014	12/2018	1.943%	43,000	43,000		
1627	Bureau Direct	01/2014	12/2018	1.943%	38,000	38,000		
1628	Bureau Direct	01/2014	12/2018	1.943%	21,000	21,000	12/2029	4.136%
1629	Bureau Direct	01/2014	12/2018	1.943%	26,000	26,000	12/2029	4.136%
1630	Bureau Direct	01/2014	12/2018	1.943%	14,000	14,000	12/2029	4.136%
1631	Bureau Direct	09/2014	05/2032	0.577%	16,000	16,000		
1632	Bureau Direct	09/2014	05/2032	0.577%	10,000	10,000		
1633	Bureau Direct	09/2014	06/2033	0.490%	11,000	11,000		
1634	Bureau Direct	09/2014	06/2033	0.490%	12,000	12,000		
1635	Bureau Direct	09/2014	07/2033	0.505%	15,000	15,000		
1636	Bureau Direct	09/2015	09/2033	3.134%	10,000	10,000		
1637	Bureau Direct	04/2016	04/2031	2.661%	17,000	17,000		
1638	Bureau Direct	07/2016	07/2030	2.145%	12,000	12,000		
1639	Bureau Direct	07/2016	07/2030	2.145%	25,000	25,000		
1640	Conservation	09/1983	09/2003	12.200%	140,000	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1641	Conservation	09/1984	09/2004	13.050%	150,000	0		
1642	Conservation	09/1985	09/1990	10.150%	50,000	0		
1643	Conservation	03/1986	03/1991	7.800%	50,000	0		
1644	Conservation	03/1986	03/1996	8.150%	50,000	0		
1645	Conservation	04/1987	04/2007	9.300%	75,000	0		
1646	Conservation	06/1987	06/1992	8.350%	50,000	0		
1647	Conservation	04/1988	04/2008	9.900%	90,000	0		
1648	Conservation	07/1989	07/2009	8.550%	40,000	0		
1649	Conservation	09/1989	09/1995	8.600%	66,000	0		
1650	Conservation	09/1989	09/2002	8.650%	66,000	0		
1651	Conservation	07/1992	07/1997	5.800%	80,200	0		
1652	Conservation	07/1992	07/2007	7.140%	100,000	0		
1653	Conservation	10/1992	10/2012	8.050%	50,000	0		
1654	Conservation	02/1993	02/2013	7.400%	50,000	0		
1655	Conservation	08/1993	08/2013	6.750%	40,000	0		
1656	Conservation	01/1994	01/2014	6.750%	50,000	0		
1657	Conservation	05/1994	05/1998	7.100%	50,000	0		
1658	Conservation	05/1995	05/2015	7.500%	85,000	0		
1659	Conservation	01/1996	01/2011	6.700%	30,000	0		
1660	Conservation	11/1996	11/2016	7.200%	40,000	0		
1661	Conservation	05/1998	05/2009	6.000%	37,700	0		
1662	Conservation	09/1998	09/2008	5.300%	104,300	0		
1663	Conservation	09/1998	09/2013	5.600%	52,800	0		
1664	Conservation	07/2000	07/2003	6.950%	32,000	0		
1665	Conservation	06/2002	06/2005	3.750%	40,000	0		
1666	Conservation	01/2004	01/2008	2.950%	30,000	0		
1667	Conservation	03/2006	03/2009	5.050%	20,000	0		
1668	Conservation	06/2007	06/2010	5.350%	20,000	0		
1669	Conservation	09/2008	09/2013	3.701%	10,000	0		
1670	Conservation	09/2009	09/2014	2.746%	15,000	0		
1671	Conservation	01/2010	01/2015	2.609%	15,000	0		
1672	Conservation	04/2010	04/2015	2.677%	20,000	0		
1673	Conservation	08/2010	08/2015	1.619%	15,000	0		
1674	Conservation	09/2010	09/2015	1.534%	10,000	0		
1675	Conservation	01/2011	01/2023	4.046%	40,000	40,000		
1676	Conservation	04/2011	04/2023	3.932%	35,000	35,000		
1677	Conservation	08/2011	08/2023	3.206%	40,000	40,000		
1678	Conservation	10/2011	08/2012	0.204%	55,000	0		
1679	Conservation	12/2011	12/2037	0.189%	55,000	0		
1680	Conservation	05/2012	09/2015	0.676%	30,000	0		
1681	Conservation	06/2012	09/2015	0.671%	15,000	0		
1682	Conservation	08/2012	08/2024	2.788%	15,000	0		
1683	Conservation	11/2012	11/2016	0.630%	20,000	20,000		
1684	Conservation	01/2013	01/2018	1.107%	9,000	9,000		
1685	Conservation	03/2013	03/2025	4.992%	10,000	0		
1686	Conservation	04/2013	04/2025	4.553%	12,000	0		
1687	Conservation	08/2013	08/2025	6.973%	5,000	0		
1688	Conservation	10/2013	10/2025	3.568%	34,000	34,000		
1689	Conservation	11/2013	09/2023	3.375%	27,000	27,000		
1690	Conservation	12/2013	12/2021	3.142%	6,000	6,000		
1691	Conservation	12/2013	12/2023	0.490%	55,000	55,000		
1692	Conservation	01/2014	01/2026	3.621%	5,000	5,000		
1693	Conservation	04/2014	06/2025	0.490%	30,000	30,000		
1694	Conservation	05/2014	04/2024	0.483%	15,000	15,000		
1695	Conservation	05/2014	04/2025	0.483%	3,000	3,000		
1696	Conservation	06/2014	10/2024	0.483%	5,000	5,000		
1697	Conservation	07/2014	07/2025	0.505%	12,000	12,000		
1698	Conservation	08/2014	09/2025	0.519%	4,000	4,000		
1699	Conservation	10/2014	12/2024	0.490%	10,000	10,000		
1700	Conservation	11/2014	03/2027	0.519%	6,000	6,000		
1701	Conservation	12/2014	12/2023	2.403%	7,000	7,000		
1702	Conservation	01/2015	09/2015	0.204%	15,000	0		
1703	Conservation	01/2015	01/2024	1.908%	7,000	7,000		
1704	Conservation	02/2015	02/2024	2.251%	8,000	8,000		
1705	Conservation	03/2015	03/2025	2.295%	5,000	5,000		
1706	Conservation	04/2015	04/2024	2.269%	5,000	5,000		
1707	Conservation	05/2015	05/2021	1.898%	5,000	5,000		
1708	Conservation	07/2015	07/2021	2.067%	14,000	14,000		
1709	Conservation	08/2015	08/2022	2.233%	6,000	6,000		
1710	Conservation	09/2015	09/2022	2.062%	4,000	4,000		
1711	Conservation	10/2015	10/2027	0.483%	25,000	25,000		
1712	Construction (AS)	10/1992	10/2032	8.350%	38	0		
1713	Construction (AS)	07/1995	07/2025	7.700%	67	0		
1714	Construction (AS)	01/1996	01/2003	5.900%	5,622	0		
1715	Construction (AS)	01/1997	01/2004	6.800%	7,400	0		
1716	Construction (AS)	08/1998	08/2008	5.750%	3,181	0		
1717	Construction (AS)	02/1999	02/2014	5.900%	950	0		
1718	Construction (AS)	07/2000	07/2004	7.000%	10,948	0		
1719	Construction (AS)	01/2001	01/2010	6.050%	68	0		
1720	Construction (AS)	03/2002	03/2005	4.600%	1,990	0		
1721	Construction (AS)	10/2002	10/2005	3.000%	45,062	0		
1722	Construction (AS)	01/2004	01/2007	2.500%	13,357	0		

TABLE 12A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2019 Cost Evaluation period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1723	Construction (AS)	11/2004	11/2008	3.750%	7,990	0		
1724	Construction (AS)	09/2006	09/2010	4.950%	9,681	0		
1725	Construction (AS)	01/2008	01/2012	3.200%	10,000	0		
1726	Construction (AS)	09/2008	09/2012	3.444%	10,000	0		
1727	Construction (AS)	09/2009	09/2014	2.746%	14,000	0		
1728	Construction (AS)	02/2010	02/2015	0.165%	7,500	0		
1729	Construction (AS)	08/2010	08/2015	1.619%	5,000	0		
1730	Construction (AS)	06/2011	06/2016	1.957%	7,000	0		
1731	Construction (AS)	08/2011	08/2016	1.423%	3,500	3,500		
1732	Construction (AS)	01/2012	09/2012	0.146%	10,000	0		
1733	Construction (AS)	06/2012	09/2015	0.671%	7,700	0		
1734	Construction (AS)	11/2012	11/2018	1.109%	5,250	5,250		
1735	Construction (AS)	04/2013	04/2017	0.622%	2,450	2,450		
1736	Construction (AS)	06/2013	06/2017	1.271%	3,000	3,000		
1737	Construction (AS)	08/2013	08/2017	1.494%	2,000	2,000		
1738	Construction (AS)	10/2013	10/2019	2.039%	4,200	4,200		
1739	Construction (AS)	10/2013	10/2019	2.039%	5,000	5,000		
1740	Construction (AS)	01/2014	01/2020	2.183%	1,750	1,750		
1741	Construction (AS)	01/2014	01/2020	2.183%	2,000	2,000		
1742	Construction (AS)	02/2014	09/2014	0.117%	950	0		
1743	Construction (AS)	04/2014	03/2020	0.519%	1,400	1,400		
1744	Construction (AS)	04/2014	03/2020	0.519%	2,000	2,000		
1745	Construction (AS)	05/2014	04/2020	0.483%	700	700		
1746	Construction (AS)	07/2014	07/2020	0.505%	1,050	1,050		
1747	Construction (AS)	11/2014	11/2020	1.809%	2,100	2,100		
1748	Construction (AS)	12/2014	12/2020	1.922%	1,050	1,050		
1749	Construction (AS)	02/2015	02/2021	1.761%	1,750	1,750		
1750	Construction (AS)	05/2015	05/2021	1.898%	2,100	2,100		
1751	Construction (AS)	09/2015	09/2017	0.744%	7,700	7,700		
1752	Construction (AS)	10/2015	10/2021	1.942%	2,800	2,800		
1753	Construction (AS)	02/2016	02/2022	0.515%	3,000	3,000		
1754	Construction (AS)	06/2016	09/2016	0.436%	7,000	7,000		
1755	Corps	09/2015	09/2033	3.134%	4,000	4,000		
1756	Corps	02/2016	02/2045	0.515%	3,000	3,000		
1757	Corps	04/2016	04/2031	2.661%	53,000	53,000		
1758	Corps	05/2016	05/2030	2.599%	15,000	15,000		
1759	Fish and Wildlife	05/1989	05/1999	8.950%	25,000	0		
1760	Fish and Wildlife	05/1991	05/1996	7.950%	50,000	0		
1761	Fish and Wildlife	02/1993	02/2008	6.950%	20,000	0		
1762	Fish and Wildlife	09/1994	09/1999	7.650%	20,000	0		
1763	Fish and Wildlife	08/1995	08/2010	7.200%	35,000	0		
1764	Fish and Wildlife	01/1998	01/2013	6.100%	60,000	0		
1765	Fish and Wildlife	09/1999	09/2003	6.300%	20,000	0		
1766	Fish and Wildlife	01/2001	01/2005	5.650%	25,000	0		
1767	Fish and Wildlife	09/2003	09/2007	3.100%	20,000	0		
1768	Fish and Wildlife	09/2005	09/2008	4.250%	20,000	0		
1769	Fish and Wildlife	09/2006	09/2010	4.950%	20,000	0		
1770	Fish and Wildlife	06/2007	06/2010	5.350%	30,000	0		
1771	Fish and Wildlife	09/2007	09/2011	4.700%	20,000	0		
1772	Fish and Wildlife	09/2008	09/2012	3.444%	20,000	0		
1773	Fish and Wildlife	06/2009	06/2024	4.556%	20,000	20,000		
1774	Fish and Wildlife	12/2009	12/2018	4.069%	26,000	26,000		
1775	Fish and Wildlife	08/2010	08/2019	2.646%	20,000	20,000		
1776	Fish and Wildlife	01/2011	01/2026	4.440%	50,000	50,000		
1777	Fish and Wildlife	02/2011	02/2026	4.398%	15,000	15,000		
1778	Fish and Wildlife	06/2011	06/2026	4.205%	15,000	15,000		
1779	Fish and Wildlife	01/2012	01/2038	3.893%	30,000	0		
1780	Fish and Wildlife	05/2012	05/2029	0.140%	5,000	0		
1781	Fish and Wildlife	06/2012	06/2041	3.666%	11,000	0		
1782	Fish and Wildlife	08/2012	08/2027	3.090%	11,000	0		
1783	Fish and Wildlife	11/2012	11/2027	5.046%	25,000	0		
1784	Fish and Wildlife	01/2013	09/2013	0.149%	60,000	0		
1785	Fish and Wildlife	03/2013	03/2028	5.445%	10,000	0		
1786	Fish and Wildlife	04/2013	04/2028	5.042%	6,000	0		
1787	Fish and Wildlife	06/2013	06/2028	6.607%	8,000	0		
1788	Fish and Wildlife	08/2013	08/2028	7.249%	5,000	0		
1789	Fish and Wildlife	10/2013	12/2026	3.717%	28,000	28,000		
1790	Fish and Wildlife	10/2013	05/2027	3.762%	11,000	11,000		
1791	Fish and Wildlife	10/2013	10/2028	3.880%	22,000	22,000		
1792	Fish and Wildlife	11/2013	09/2022	3.125%	31,000	31,000		
1793	Fish and Wildlife	11/2013	09/2023	3.375%	23,000	23,000	09/2028	3.831%
1794	Fish and Wildlife	11/2013	05/2027	0.577%	5,000	5,000		
1795	Fish and Wildlife	01/2014	01/2029	3.896%	7,000	7,000		
1796	Fish and Wildlife	04/2014	02/2029	0.515%	7,000	7,000		
1797	Fish and Wildlife	05/2014	04/2027	0.483%	11,000	11,000		
1798	Fish and Wildlife	08/2014	07/2029	0.505%	5,000	5,000		
1799	Fish and Wildlife	10/2014	01/2029	0.505%	15,000	15,000		
1800	Fish and Wildlife	11/2014	03/2030	0.519%	8,000	8,000		
1801	Fish and Wildlife	01/2015	01/2024	1.908%	5,000	5,000		
1802	Fish and Wildlife	03/2015	03/2028	2.511%	3,000	3,000		
1803	Fish and Wildlife	10/2015	02/2031	0.515%	4,000	4,000		
1804	Fish and Wildlife	10/2015	03/2031	0.519%	5,000	5,000		

TABLE 12A:
HISTORICAL INVESTMENTS
October 1, 2015 - September 30, 2019 Cost Evaluation period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1805	Fish and Wildlife	02/2016	02/2031	0.515%	4,000	4,000		
1806	Technology (G)	01/2015	01/2021	1.469%	35,000	35,000		
1807	Technology (G)	10/2015	07/2022	0.505%	6,000	6,000		
1808	**Totals:**				**12,171,772**	**5,270,310**		

TABLE 12B:
PROJECTED INVESTMENTS
October 1, 2015 - September 30, 2019 Cost Evaluation period
($000s) (FY 2019)

	A	B	C	D	E	F	G
	Project	In Service Date	Due Date	Interest Rate	Current Principal	Roll Maturity Date	Rollover Rate
1	Bureau Direct	07/2017	07/2032	3.810%	16,000		
2	Bureau Direct	08/2017	08/2034	3.890%	16,000		
3	Bureau Direct	09/2017	09/2036	3.970%	16,000		
4	Bureau Direct	07/2018	07/2038	4.320%	28,000		
5	Bureau Direct	08/2018	08/2040	4.380%	28,000		
6	Bureau Direct	09/2018	09/2042	4.440%	28,000		
7	Bureau Direct	07/2019	07/2044	4.530%	47,000		
8	Bureau Direct	08/2019	08/2046	4.590%	47,000		
9	Bureau Direct	09/2019	09/2048	4.650%	47,000		
10	Columbia River Fish Mitigation	09/2016	09/2066	3.000%	45,326		
11	Columbia River Fish Mitigation	09/2017	09/2067	3.680%	151,772		
12	Columbia River Fish Mitigation	09/2018	09/2068	3.930%	81,269		
13	Columbia River Fish Mitigation	09/2019	09/2069	3.980%	53,204		
14	Construction (AS)	09/2017	09/2023	3.120%	5,250		
15	Construction (AS)	09/2018	09/2024	3.700%	5,950		
16	Construction (AS)	09/2019	09/2025	3.890%	5,950		
17	Corps	07/2017	07/2033	3.850%	55,000		
18	Corps	08/2017	08/2035	3.930%	55,000		
19	Corps	09/2017	09/2037	4.010%	55,000		
20	Corps	07/2018	07/2039	4.350%	53,000		
21	Corps	08/2018	08/2041	4.410%	53,000		
22	Corps	09/2018	09/2043	4.470%	52,000		
23	Corps	07/2019	07/2045	4.560%	41,000		
24	Corps	08/2019	08/2047	4.620%	41,000		
25	Corps	09/2019	09/2049	4.670%	41,000		
26	Fish and Wildlife	09/2017	09/2032	3.810%	45,000		
27	Fish and Wildlife	09/2018	09/2033	4.160%	51,000		
28	Fish and Wildlife	09/2019	09/2034	4.250%	44,000		
29	Technology (G)	09/2017	09/2022	3.000%	5,000		
30	Technology (G)	09/2018	09/2023	3.630%	5,000		
31	Technology (G)	09/2019	03/2024	3.830%	5,000		
32	**Totals:**				**1,222,721**		

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
1	2016	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
2	2016	Boise	Historical	4,429	6.653%	295	-	-	295
3	2016	Bonneville 2nd Powerhouse	Historical	366,796	7.150%	26,226	-	-	26,226
4	2016	Bonneville Dam	Historical	151,828	5.482%	8,323	-	-	8,323
5	2016	Chief Joseph	Historical	238,256	6.818%	16,243	-	-	16,243
6	2016	Columbia Basin	Historical	98,275	5.674%	5,577	-	-	5,577
7	2016	Columbia Basin 3rd Powerhouse	Historical	361,897	7.150%	25,876	-	-	25,876
8	2016	Columbia River Fish Mitigation	Historical	1,392,630	4.400%	61,273	-	-	61,273
9	2016	Cougar	Historical	16,708	4.580%	765	-	-	765
10	2016	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
11	2016	Dworshak	Historical	14,040	6.340%	890	-	-	890
12	2016	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
13	2016	Hills Creek	Historical	2,867	5.972%	171	-	-	171
14	2016	Hungry Horse Dam	Historical	13,312	6.264%	834	-	-	834
15	2016	Ice Harbor	Historical	18,673	4.875%	910	-	-	910
16	2016	John Day	Historical	30,473	5.425%	1,653	-	-	1,653
17	2016	Libby	Historical	23,079	6.658%	1,537	-	-	1,537
18	2016	Little Goose	Historical	63,856	6.907%	4,410	-	-	4,410
19	2016	Lookout Dam	Historical	13,543	5.467%	740	-	-	740
20	2016	Lost Creek	Historical	12,618	7.133%	900	-	-	900
21	2016	Lower Granite	Historical	59,370	6.457%	3,833	-	-	3,833
22	2016	Lower Monument	Historical	54,534	6.715%	3,662	-	-	3,662
23	2016	Lower Snake Fish and Wildlife	Historical	232,739	7.104%	16,534	-	-	16,534
24	2016	McNary	Historical	15,126	4.931%	746	-	-	746
25	2016	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
26	2016	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
27	2016	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
28	2016	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
29	2016	Yakima Roza	Historical	14	5.878%	1	-	-	1
30	2016	Bureau Direct	Historical	937,000	3.028%	28,376	-	-	28,376
31	2016	Bureau Direct	New	54,000	-	-	-	319	319
32	2016	Conservation	Historical	417,000	2.156%	8,992	-	-	8,992
33	2016	Conservation	New	25,000	0.242%	60	-	50	110
34	2016	Construction (AS)	Historical	49,000	1.373%	673	-	(4)	669
35	2016	Construction (AS)	New	12,800	0.332%	43	-	24	66
36	2016	Corps	Historical	4,000	3.134%	125	-	-	125
37	2016	Corps	New	71,000	0.011%	8	-	717	725
38	2016	Fish and Wildlife	Historical	327,000	3.291%	10,763	-	-	10,763
39	2016	Fish and Wildlife	New	13,000	0.394%	51	-	3	55
40	2016	Technology (G)	Historical	35,000	1.469%	514	-	-	514
41	2016	Technology (G)	New	6,000	0.379%	23	-	5	28
42	2016	Float	Historical	-	-	(1,990)	-	-	(1,990)
43	**FY 2016**	**Subtotal:**		**5,270,310**		**236,762**	**-**	**1,114**	**237,876**
44	2017	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
45	2017	Boise	Historical	4,429	6.653%	295	-	-	295
46	2017	Bonneville 2nd Powerhouse	Historical	16,759	7.150%	1,198	-	-	1,198
47	2017	Bonneville Dam	Historical	135,618	5.283%	7,164	-	-	7,164
48	2017	Chief Joseph	Historical	37,578	5.043%	1,895	-	-	1,895
49	2017	Columbia Basin	Historical	97,915	5.669%	5,551	-	-	5,551
50	2017	Columbia Basin 3rd Powerhouse	Historical	43,638	7.150%	3,120	-	-	3,120
51	2017	Columbia River Fish Mitigation	Historical	1,437,956	4.356%	62,632	-	-	62,632
52	2017	Cougar	Historical	16,708	4.580%	765	-	-	765
53	2017	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
54	2017	Dworshak	Historical	13,613	6.314%	860	-	-	860
55	2017	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
56	2017	Hills Creek	Historical	2,867	5.972%	171	-	-	171
57	2017	Hungry Horse Dam	Historical	11,581	6.131%	710	-	-	710
58	2017	Ice Harbor	Historical	18,595	4.865%	905	-	-	905
59	2017	John Day	Historical	30,473	5.425%	1,653	-	-	1,653
60	2017	Libby	Historical	22,777	6.652%	1,515	-	-	1,515
61	2017	Little Goose	Historical	14,231	6.058%	862	-	-	862
62	2017	Lookout Dam	Historical	13,543	5.467%	740	-	-	740
63	2017	Lost Creek	Historical	272	6.370%	17	-	-	17
64	2017	Lower Granite	Historical	17,002	4.730%	804	-	-	804
65	2017	Lower Monument	Historical	13,609	5.407%	736	-	-	736
66	2017	Lower Snake Fish and Wildlife	Historical	223,267	7.102%	15,857	-	-	15,857
67	2017	McNary	Historical	15,096	4.927%	744	-	-	744
68	2017	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
69	2017	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
70	2017	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
71	2017	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
72	2017	Yakima Roza	Historical	14	5.878%	1	-	-	1
73	2017	Bureau Direct	Historical	991,000	2.989%	29,622	-	-	29,622
74	2017	Bureau Direct	New	32,000	-	-	-	153	153
75	2017	Conservation	Historical	442,000	2.047%	9,050	-	(42)	9,008
76	2017	Construction (AS)	Historical	51,300	1.351%	693	-	(18)	675
77	2017	Corps	Historical	75,000	2.588%	1,941	-	-	1,941
78	2017	Corps	New	110,000	-	-	-	532	532
79	2017	Fish and Wildlife	Historical	340,000	3.185%	10,830	-	-	10,830
80	2017	Technology (G)	Historical	41,000	1.328%	544	-	-	544
81	2017	Float	Historical	-	-	(1,327)	-	-	(1,327)

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
82	**FY 2017**	**Subtotal:**		**4,404,288**		**167,274**	**-**	**625**	**167,898**
83	2018	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
84	2018	Boise	Historical	4,429	6.653%	295	-	-	295
85	2018	Bonneville 2nd Powerhouse	Historical	9,867	7.150%	705	-	-	705
86	2018	Bonneville Dam	Historical	135,618	5.283%	7,164	-	-	7,164
87	2018	Chief Joseph	Historical	37,578	5.043%	1,895	-	-	1,895
88	2018	Columbia Basin	Historical	97,915	5.669%	5,551	-	-	5,551
89	2018	Columbia Basin 3rd Powerhouse	Historical	12,631	7.150%	903	-	-	903
90	2018	Columbia River Fish Mitigation	Historical	1,589,727	4.291%	68,217	-	-	68,217
91	2018	Cougar	Historical	16,708	4.580%	765	-	-	765
92	2018	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
93	2018	Dworshak	Historical	13,613	6.314%	860	-	-	860
94	2018	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
95	2018	Hills Creek	Historical	2,867	5.972%	171	-	-	171
96	2018	Hungry Horse Dam	Historical	11,581	6.131%	710	-	-	710
97	2018	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
98	2018	John Day	Historical	30,278	5.413%	1,639	-	-	1,639
99	2018	Libby	Historical	7,996	5.731%	458	-	-	458
100	2018	Little Goose	Historical	13,031	5.958%	776	-	-	776
101	2018	Lookout Dam	Historical	13,543	5.467%	740	-	-	740
102	2018	Lost Creek	Historical	272	6.370%	17	-	-	17
103	2018	Lower Granite	Historical	17,002	4.730%	804	-	-	804
104	2018	Lower Monument	Historical	13,345	5.373%	717	-	-	717
105	2018	Lower Snake Fish and Wildlife	Historical	55,653	6.958%	3,872	-	-	3,872
106	2018	McNary	Historical	15,096	4.927%	744	-	-	744
107	2018	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
108	2018	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
109	2018	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
110	2018	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
111	2018	Yakima Roza	Historical	14	5.878%	1	-	-	1
112	2018	Bureau Direct	Historical	1,039,000	3.031%	31,487	-	-	31,487
113	2018	Bureau Direct	New	56,000	-	-	-	303	303
114	2018	Conservation	Historical	422,000	2.118%	8,937	-	(16)	8,921
115	2018	Construction (AS)	Historical	41,400	1.730%	716	-	-	716
116	2018	Corps	Historical	240,000	3.508%	8,419	-	-	8,419
117	2018	Corps	New	106,000	-	-	-	578	578
118	2018	Fish and Wildlife	Historical	385,000	3.258%	12,544	-	-	12,544
119	2018	Technology (G)	Historical	46,000	1.510%	694	-	-	694
120	2018	Float	Historical	-	-	(1,228)	-	-	(1,228)
121	**FY 2018**	**Subtotal:**		**4,586,836**		**167,180**	**-**	**865**	**168,045**
122	2019	Albeni Falls	Historical	1,528	6.329%	97	-	-	97
123	2019	Boise	Historical	4,429	6.653%	295	-	-	295
124	2019	Bonneville 2nd Powerhouse	Historical	376	7.150%	27	-	-	27
125	2019	Bonneville Dam	Historical	134,525	5.267%	7,086	-	-	7,086
126	2019	Chief Joseph	Historical	31,356	4.624%	1,450	-	-	1,450
127	2019	Columbia Basin	Historical	95,175	5.626%	5,355	-	-	5,355
128	2019	Columbia River Fish Mitigation	Historical	1,631,715	4.204%	68,603	-	-	68,603
129	2019	Cougar	Historical	16,708	4.580%	765	-	-	765
130	2019	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
131	2019	Dworshak	Historical	12,451	6.236%	776	-	-	776
132	2019	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
133	2019	Hills Creek	Historical	2,867	5.972%	171	-	-	171
134	2019	Hungry Horse Dam	Historical	5,391	4.962%	267	-	-	267
135	2019	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
136	2019	John Day	Historical	21,980	4.758%	1,046	-	-	1,046
137	2019	Libby	Historical	7,996	5.731%	458	-	-	458
138	2019	Little Goose	Historical	13,031	5.958%	776	-	-	776
139	2019	Lookout Dam	Historical	13,471	5.458%	735	-	-	735
140	2019	Lost Creek	Historical	178	5.960%	11	-	-	11
141	2019	Lower Granite	Historical	17,002	4.730%	804	-	-	804
142	2019	Lower Monument	Historical	11,459	5.080%	582	-	-	582
143	2019	Lower Snake Fish and Wildlife	Historical	19,683	6.607%	1,301	-	-	1,301
144	2019	McNary	Historical	15,080	4.924%	743	-	-	743
145	2019	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
146	2019	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
147	2019	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
148	2019	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
149	2019	Yakima Roza	Historical	14	5.878%	1	-	-	1
150	2019	Bureau Direct	Historical	1,123,000	3.083%	34,620	-	(422)	34,197
151	2019	Bureau Direct	New	94,000	-	-	-	534	534
152	2019	Conservation	Historical	413,000	2.152%	8,887	-	-	8,887
153	2019	Construction (AS)	Historical	47,350	1.916%	907	-	(20)	888
154	2019	Corps	Historical	398,000	3.864%	15,380	-	-	15,380
155	2019	Corps	New	82,000	-	-	-	469	469
156	2019	Fish and Wildlife	Historical	436,000	3.242%	14,137	-	(309)	13,828
157	2019	Technology (G)	Historical	51,000	1.718%	876	-	-	876
158	2019	Float	Historical	-	-	(1,597)	-	-	(1,597)
159	**FY 2019**	**Subtotal:**		**4,850,309**		**172,952**	**-**	**251**	**173,203**
160	2020	Albeni Falls	Historical	1,011	5.909%	60	-	-	60
161	2020	Boise	Historical	4,429	6.653%	295	-	-	295

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
162	2020	Bonneville 2nd Powerhouse	Historical	376	7.150%	27	-	-	27
163	2020	Bonneville Dam	Historical	134,525	5.267%	7,086	-	-	7,086
164	2020	Chief Joseph	Historical	31,356	4.624%	1,450	-	-	1,450
165	2020	Columbia Basin	Historical	95,175	5.626%	5,355	-	-	5,355
166	2020	Columbia River Fish Mitigation	Historical	1,684,919	4.197%	70,720	-	-	70,720
167	2020	Cougar	Historical	16,708	4.580%	765	-	-	765
168	2020	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
169	2020	Dworshak	Historical	12,451	6.236%	776	-	-	776
170	2020	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
171	2020	Hills Creek	Historical	2,867	5.972%	171	-	-	171
172	2020	Hungry Horse Dam	Historical	5,391	4.962%	267	-	-	267
173	2020	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
174	2020	John Day	Historical	21,980	4.758%	1,046	-	-	1,046
175	2020	Libby	Historical	7,996	5.731%	458	-	-	458
176	2020	Little Goose	Historical	10,971	5.734%	629	-	-	629
177	2020	Lookout Dam	Historical	13,471	5.458%	735	-	-	735
178	2020	Lost Creek	Historical	154	5.774%	9	-	-	9
179	2020	Lower Granite	Historical	16,368	4.636%	759	-	-	759
180	2020	Lower Monument	Historical	11,449	5.079%	581	-	-	581
181	2020	Lower Snake Fish and Wildlife	Historical	7,598	5.744%	436	-	-	436
182	2020	McNary	Historical	14,461	4.829%	698	-	-	698
183	2020	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
184	2020	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
185	2020	The Dalles	Historical	44,291	5.137%	2,275	-	-	2,275
186	2020	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
187	2020	Yakima Roza	Historical	14	5.878%	1	-	-	1
188	2020	Bureau Direct	Historical	1,159,000	3.387%	39,255	-	(1,015)	38,240
189	2020	Conservation	Historical	413,000	2.152%	8,887	-	-	8,887
190	2020	Construction (AS)	Historical	48,050	2.011%	966	-	(94)	873
191	2020	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
192	2020	Fish and Wildlife	Historical	434,000	3.445%	14,950	-	-	14,950
193	2020	Replacements	New	218,435	2.335%	5,100	-	-	5,100
194	2020	Technology (G)	Historical	56,000	1.906%	1,067	-	-	1,067
195	2020	Float	Historical	-	-	(1,377)	-	-	(1,377)
196	**FY 2020**	**Subtotal:**		**5,090,708**		**190,479**	**-**	**(1,109)**	**189,370**
197	2021	Albeni Falls	Historical	1,011	5.909%	60	-	-	60
198	2021	Boise	Historical	4,429	6.653%	295	-	-	295
199	2021	Bonneville 2nd Powerhouse	Historical	376	7.150%	27	-	-	27
200	2021	Bonneville Dam	Historical	134,525	5.267%	7,086	-	-	7,086
201	2021	Chief Joseph	Historical	30,762	4.576%	1,408	-	-	1,408
202	2021	Columbia Basin	Historical	94,381	5.614%	5,298	-	-	5,298
203	2021	Columbia River Fish Mitigation	Historical	1,682,488	4.193%	70,546	-	-	70,546
204	2021	Cougar	Historical	16,708	4.580%	765	-	-	765
205	2021	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
206	2021	Dworshak	Historical	12,398	6.233%	773	-	-	773
207	2021	Green Peter/Foster	Historical	719	4.379%	31	-	-	31
208	2021	Hills Creek	Historical	2,839	5.960%	169	-	-	169
209	2021	Hungry Horse Dam	Historical	5,374	4.955%	266	-	-	266
210	2021	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
211	2021	John Day	Historical	21,980	4.758%	1,046	-	-	1,046
212	2021	Libby	Historical	7,996	5.731%	458	-	-	458
213	2021	Little Goose	Historical	8,130	5.239%	426	-	-	426
214	2021	Lookout Dam	Historical	13,471	5.458%	735	-	-	735
215	2021	Lost Creek	Historical	154	5.774%	9	-	-	9
216	2021	Lower Granite	Historical	16,368	4.636%	759	-	-	759
217	2021	Lower Monument	Historical	11,449	5.079%	581	-	-	581
218	2021	Lower Snake Fish and Wildlife	Historical	7,598	5.744%	436	-	-	436
219	2021	McNary	Historical	14,461	4.829%	698	-	-	698
220	2021	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
221	2021	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
222	2021	The Dalles	Historical	44,291	5.137%	2,275	-	-	2,275
223	2021	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
224	2021	Yakima Roza	Historical	14	5.878%	1	-	-	1
225	2021	Bureau Direct	Historical	1,039,000	3.540%	36,783	-	(165)	36,618
226	2021	Conservation	Historical	413,000	2.152%	8,887	-	(80)	8,808
227	2021	Construction (AS)	Historical	29,950	2.569%	769	-	(34)	736
228	2021	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
229	2021	Fish and Wildlife	Historical	434,000	3.445%	14,950	-	-	14,950
230	2021	Replacements	Historical	218,435	4.670%	10,201	-	-	10,201
231	2021	Replacements	New	218,435	2.335%	5,100	-	-	5,100
232	2021	Technology (G)	Historical	56,000	1.447%	810	-	(85)	726
233	2021	Float	Historical	-	-	(1,446)	-	-	(1,446)
234	**FY 2021**	**Subtotal:**		**5,164,259**		**197,200**	**-**	**(363)**	**196,836**
235	2022	Albeni Falls	Historical	1,011	5.909%	60	-	-	60
236	2022	Boise	Historical	3,331	6.489%	216	-	-	216
237	2022	Bonneville Dam	Historical	131,862	5.229%	6,896	-	-	6,896
238	2022	Chief Joseph	Historical	30,265	4.533%	1,372	-	-	1,372
239	2022	Columbia Basin	Historical	94,381	5.614%	5,298	-	-	5,298

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
240	2022	Columbia River Fish Mitigation	Historical	1,682,488	4.193%	70,546	-	-	70,546
241	2022	Cougar	Historical	16,708	4.580%	765	-	-	765
242	2022	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
243	2022	Dworshak	Historical	12,398	6.233%	773	-	-	773
244	2022	Green Peter/Foster	Historical	719	4.379%	31	-	-	31
245	2022	Hills Creek	Historical	2,839	5.960%	169	-	-	169
246	2022	Hungry Horse Dam	Historical	5,374	4.955%	266	-	-	266
247	2022	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
248	2022	John Day	Historical	21,980	4.758%	1,046	-	-	1,046
249	2022	Libby	Historical	7,996	5.731%	458	-	-	458
250	2022	Little Goose	Historical	8,130	5.239%	426	-	-	426
251	2022	Lookout Dam	Historical	13,471	5.458%	735	-	-	735
252	2022	Lost Creek	Historical	154	5.774%	9	-	-	9
253	2022	Lower Granite	Historical	16,368	4.636%	759	-	-	759
254	2022	Lower Monument	Historical	11,449	5.079%	581	-	-	581
255	2022	Lower Snake Fish and Wildlife	Historical	7,598	5.744%	436	-	-	436
256	2022	McNary	Historical	14,461	4.829%	698	-	-	698
257	2022	Minidoka/Palisades	Historical	65,673	6.006%	3,945	-	-	3,945
258	2022	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
259	2022	The Dalles	Historical	44,291	5.137%	2,275	-	-	2,275
260	2022	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
261	2022	Yakima Roza	Historical	14	5.878%	1	-	-	1
262	2022	Bureau Direct	Historical	942,000	3.635%	34,242	-	-	34,242
263	2022	Conservation	Historical	394,000	2.134%	8,409	-	(58)	8,350
264	2022	Construction (AS)	Historical	22,950	2.833%	650	-	(24)	626
265	2022	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
266	2022	Fish and Wildlife	Historical	434,000	3.445%	14,950	-	-	14,950
267	2022	Replacements	Historical	436,871	4.670%	20,402	-	-	20,402
268	2022	Replacements	New	218,435	2.335%	5,100	-	-	5,100
269	2022	Technology (G)	Historical	21,000	2.635%	553	-	(5)	548
270	2022	Float	Historical	-	-	(1,403)	-	-	(1,403)
271	**FY 2022**	**Subtotal:**		**5,215,537**		**203,394**	**-**	**(87)**	**203,306**
272	2023	Albeni Falls	Historical	580	4.988%	29	-	-	29
273	2023	Boise	Historical	1,065	5.082%	54	-	-	54
274	2023	Bonneville Dam	Historical	131,701	5.227%	6,884	-	-	6,884
275	2023	Chief Joseph	Historical	29,608	4.475%	1,325	-	-	1,325
276	2023	Columbia Basin	Historical	90,988	5.556%	5,056	-	-	5,056
277	2023	Columbia River Fish Mitigation	Historical	1,682,488	4.193%	70,546	-	-	70,546
278	2023	Cougar	Historical	16,682	4.576%	763	-	-	763
279	2023	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
280	2023	Dworshak	Historical	4,810	4.785%	230	-	-	230
281	2023	Green Peter/Foster	Historical	719	4.379%	31	-	-	31
282	2023	Hills Creek	Historical	2,839	5.960%	169	-	-	169
283	2023	Hungry Horse Dam	Historical	5,263	4.908%	258	-	-	258
284	2023	Ice Harbor	Historical	18,157	4.810%	873	-	-	873
285	2023	John Day	Historical	21,801	4.738%	1,033	-	-	1,033
286	2023	Libby	Historical	7,336	5.603%	411	-	-	411
287	2023	Little Goose	Historical	8,129	5.239%	426	-	-	426
288	2023	Lookout Dam	Historical	11,777	5.362%	632	-	-	632
289	2023	Lost Creek	Historical	154	5.774%	9	-	-	9
290	2023	Lower Granite	Historical	15,691	4.528%	710	-	-	710
291	2023	Lower Monument	Historical	11,449	5.079%	581	-	-	581
292	2023	Lower Snake Fish and Wildlife	Historical	3,896	4.811%	187	-	-	187
293	2023	McNary	Historical	14,461	4.829%	698	-	-	698
294	2023	Minidoka/Palisades	Historical	19,286	3.256%	628	-	-	628
295	2023	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
296	2023	The Dalles	Historical	41,703	5.076%	2,117	-	-	2,117
297	2023	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
298	2023	Yakima Roza	Historical	14	5.878%	1	-	-	1
299	2023	Bureau Direct	Historical	923,000	3.646%	33,649	-	(35)	33,614
300	2023	Conservation	Historical	378,000	1.928%	7,289	-	(947)	6,342
301	2023	Construction (AS)	Historical	17,150	3.588%	615	-	-	615
302	2023	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
303	2023	Fish and Wildlife	Historical	403,000	3.469%	13,981	-	-	13,981
304	2023	Replacements	Historical	655,306	4.670%	30,603	-	-	30,603
305	2023	Replacements	New	218,435	2.335%	5,100	-	-	5,100
306	2023	Technology (G)	Historical	10,000	3.730%	373	-	-	373
307	2023	Float	Historical	-	-	(1,399)	-	-	(1,399)
308	**FY 2023**	**Subtotal:**		**5,280,584**		**205,715**	**-**	**(982)**	**204,733**
309	2024	Albeni Falls	Historical	580	4.988%	29	-	-	29
310	2024	Boise	Historical	1,065	5.082%	54	-	-	54
311	2024	Bonneville Dam	Historical	131,701	5.227%	6,884	-	-	6,884
312	2024	Chief Joseph	Historical	29,608	4.475%	1,325	-	-	1,325
313	2024	Columbia Basin	Historical	90,988	5.556%	5,056	-	-	5,056
314	2024	Columbia River Fish Mitigation	Historical	1,682,488	4.193%	70,546	-	-	70,546
315	2024	Cougar	Historical	16,682	4.576%	763	-	-	763
316	2024	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
317	2024	Dworshak	Historical	4,810	4.785%	230	-	-	230

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October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
318	2024	Green Peter/Foster	Historical	719	4.379%	31	-	-	31
319	2024	Hills Creek	Historical	2,839	5.960%	169	-	-	169
320	2024	Hungry Horse Dam	Historical	5,263	4.908%	258	-	-	258
321	2024	Ice Harbor	Historical	18,157	4.810%	873	-	-	873
322	2024	John Day	Historical	19,896	4.605%	916	-	-	916
323	2024	Libby	Historical	7,336	5.603%	411	-	-	411
324	2024	Little Goose	Historical	8,129	5.239%	426	-	-	426
325	2024	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
326	2024	Lost Creek	Historical	154	5.774%	9	-	-	9
327	2024	Lower Granite	Historical	15,691	4.528%	710	-	-	710
328	2024	Lower Monument	Historical	11,449	5.079%	581	-	-	581
329	2024	Lower Snake Fish and Wildlife	Historical	3,896	4.811%	187	-	-	187
330	2024	McNary	Historical	14,461	4.829%	698	-	-	698
331	2024	Minidoka/Palisades	Historical	19,286	3.256%	628	-	-	628
332	2024	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
333	2024	The Dalles	Historical	41,703	5.076%	2,117	-	-	2,117
334	2024	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
335	2024	Yakima Roza	Historical	14	5.878%	1	-	-	1
336	2024	Bureau Direct	Historical	923,000	3.636%	33,564	-	-	33,564
337	2024	Conservation	Historical	236,000	1.075%	2,538	-	(224)	2,314
338	2024	Construction (AS)	Historical	11,900	3.795%	452	-	-	452
339	2024	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
340	2024	Fish and Wildlife	Historical	403,000	3.483%	14,038	-	(244)	13,795
341	2024	Replacements	Historical	873,742	4.670%	40,804	-	-	40,804
342	2024	Replacements	New	218,435	2.335%	5,100	-	-	5,100
343	2024	Technology (G)	Historical	5,000	1.915%	96	-	-	96
344	2024	Float	Historical	-	-	(1,360)	-	-	(1,360)
345	**FY 2024**	**Subtotal:**		**5,341,460**		**210,410**	**-**	**(467)**	**209,942**
346	2025	Albeni Falls	Historical	580	4.988%	29	-	-	29
347	2025	Boise	Historical	1,065	5.082%	54	-	-	54
348	2025	Bonneville Dam	Historical	131,701	5.227%	6,884	-	-	6,884
349	2025	Chief Joseph	Historical	29,608	4.475%	1,325	-	-	1,325
350	2025	Columbia Basin	Historical	90,988	5.556%	5,056	-	-	5,056
351	2025	Columbia River Fish Mitigation	Historical	1,675,792	4.185%	70,136	-	-	70,136
352	2025	Cougar	Historical	16,682	4.576%	763	-	-	763
353	2025	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
354	2025	Dworshak	Historical	4,810	4.785%	230	-	-	230
355	2025	Green Peter/Foster	Historical	719	4.379%	31	-	-	31
356	2025	Hills Creek	Historical	209	3.888%	8	-	-	8
357	2025	Hungry Horse Dam	Historical	5,263	4.908%	258	-	-	258
358	2025	Ice Harbor	Historical	17,609	4.769%	840	-	-	840
359	2025	John Day	Historical	19,039	4.537%	864	-	-	864
360	2025	Libby	Historical	7,336	5.603%	411	-	-	411
361	2025	Little Goose	Historical	8,129	5.239%	426	-	-	426
362	2025	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
363	2025	Lost Creek	Historical	154	5.774%	9	-	-	9
364	2025	Lower Granite	Historical	15,691	4.528%	710	-	-	710
365	2025	Lower Monument	Historical	11,449	5.079%	581	-	-	581
366	2025	Lower Snake Fish and Wildlife	Historical	3,896	4.811%	187	-	-	187
367	2025	McNary	Historical	14,461	4.829%	698	-	-	698
368	2025	Minidoka/Palisades	Historical	19,286	3.256%	628	-	-	628
369	2025	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
370	2025	The Dalles	Historical	41,703	5.076%	2,117	-	-	2,117
371	2025	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
372	2025	Yakima Roza	Historical	14	5.878%	1	-	-	1
373	2025	Bureau Direct	Historical	923,000	3.636%	33,564	-	-	33,564
374	2025	Conservation	Historical	139,000	1.355%	1,883	-	(75)	1,808
375	2025	Construction (AS)	Historical	5,950	3.890%	231	-	-	231
376	2025	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
377	2025	Fish and Wildlife	Historical	378,000	3.460%	13,080	-	-	13,080
378	2025	Replacements	Historical	1,092,177	4.670%	51,005	-	-	51,005
379	2025	Replacements	New	218,435	2.335%	5,100	-	-	5,100
380	2025	Float	Historical	-	-	(1,292)	-	-	(1,292)
381	**FY 2025**	**Subtotal:**		**5,416,215**		**218,091**	**-**	**(75)**	**218,016**
382	2026	Albeni Falls	Historical	580	4.988%	29	-	-	29
383	2026	Boise	Historical	1,065	5.082%	54	-	-	54
384	2026	Bonneville Dam	Historical	121,117	5.149%	6,236	-	-	6,236
385	2026	Chief Joseph	Historical	29,608	4.475%	1,325	-	-	1,325
386	2026	Columbia Basin	Historical	90,988	5.556%	5,056	-	-	5,056
387	2026	Columbia River Fish Mitigation	Historical	1,635,482	4.137%	67,667	-	-	67,667
388	2026	Cougar	Historical	16,682	4.576%	763	-	-	763
389	2026	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
390	2026	Dworshak	Historical	4,810	4.785%	230	-	-	230
391	2026	Green Peter/Foster	Historical	719	4.379%	31	-	-	31

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
392	2026	Hills Creek	Historical	209	3.888%	8	-	-	8
393	2026	Hungry Horse Dam	Historical	5,263	4.908%	258	-	-	258
394	2026	Ice Harbor	Historical	17,609	4.769%	840	-	-	840
395	2026	John Day	Historical	19,039	4.537%	864	-	-	864
396	2026	Libby	Historical	7,336	5.603%	411	-	-	411
397	2026	Little Goose	Historical	8,129	5.239%	426	-	-	426
398	2026	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
399	2026	Lost Creek	Historical	154	5.774%	9	-	-	9
400	2026	Lower Granite	Historical	15,691	4.528%	710	-	-	710
401	2026	Lower Monument	Historical	11,449	5.079%	581	-	-	581
402	2026	Lower Snake Fish and Wildlife	Historical	3,896	4.811%	187	-	-	187
403	2026	McNary	Historical	14,461	4.829%	698	-	-	698
404	2026	Minidoka/Palisades	Historical	19,286	3.256%	628	-	-	628
405	2026	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
406	2026	The Dalles	Historical	41,703	5.076%	2,117	-	-	2,117
407	2026	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
408	2026	Yakima Roza	Historical	14	5.878%	1	-	-	1
409	2026	Bureau Direct	Historical	923,000	3.636%	33,564	-	-	33,564
410	2026	Conservation	Historical	70,000	1.213%	849	-	(533)	316
411	2026	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
412	2026	Fish and Wildlife	Historical	378,000	3.079%	11,640	-	(580)	11,060
413	2026	Replacements	Historical	1,310,612	4.670%	61,206	-	-	61,206
414	2026	Replacements	New	218,435	2.335%	5,100	-	-	5,100
415	2026	Float	Historical	-	-	(1,292)	-	-	(1,292)
416	**FY 2026**	**Subtotal:**		**5,508,806**		**222,470**	**-**	**(1,113)**	**221,357**
417	2027	Albeni Falls	Historical	580	4.988%	29	-	-	29
418	2027	Boise	Historical	1,065	5.082%	54	-	-	54
419	2027	Bonneville Dam	Historical	121,117	5.149%	6,236	-	-	6,236
420	2027	Chief Joseph	Historical	29,608	4.475%	1,325	-	-	1,325
421	2027	Columbia Basin	Historical	90,988	5.556%	5,056	-	-	5,056
422	2027	Columbia River Fish Mitigation	Historical	1,635,482	4.137%	67,667	-	-	67,667
423	2027	Cougar	Historical	16,682	4.576%	763	-	-	763
424	2027	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
425	2027	Dworshak	Historical	4,810	4.785%	230	-	-	230
426	2027	Green Peter/Foster	Historical	719	4.379%	31	-	-	31
427	2027	Hills Creek	Historical	209	3.888%	8	-	-	8
428	2027	Hungry Horse Dam	Historical	5,263	4.908%	258	-	-	258
429	2027	Ice Harbor	Historical	17,609	4.769%	840	-	-	840
430	2027	John Day	Historical	19,039	4.537%	864	-	-	864
431	2027	Libby	Historical	7,336	5.603%	411	-	-	411
432	2027	Little Goose	Historical	8,129	5.239%	426	-	-	426
433	2027	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
434	2027	Lost Creek	Historical	154	5.774%	9	-	-	9
435	2027	Lower Granite	Historical	15,691	4.528%	710	-	-	710
436	2027	Lower Monument	Historical	11,449	5.079%	581	-	-	581
437	2027	Lower Snake Fish and Wildlife	Historical	3,896	4.811%	187	-	-	187
438	2027	McNary	Historical	14,461	4.829%	698	-	-	698
439	2027	Minidoka/Palisades	Historical	19,286	3.256%	628	-	-	628
440	2027	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
441	2027	The Dalles	Historical	41,703	5.076%	2,117	-	-	2,117
442	2027	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
443	2027	Yakima Roza	Historical	14	5.878%	1	-	-	1
444	2027	Bureau Direct	Historical	923,000	3.636%	33,564	-	-	33,564
445	2027	Conservation	Historical	31,000	0.440%	136	-	-	136
446	2027	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
447	2027	Fish and Wildlife	Historical	298,000	3.037%	9,051	-	(431)	8,620
448	2027	Replacements	Historical	1,529,048	4.670%	71,407	-	-	71,407
449	2027	Replacements	New	218,435	2.335%	5,100	-	-	5,100
450	2027	Float	Historical	-	-	(1,295)	-	-	(1,295)
451	**FY 2027**	**Subtotal:**		**5,608,241**		**229,366**	**-**	**(431)**	**228,936**
452	2028	Albeni Falls	Historical	580	4.988%	29	-	-	29
453	2028	Boise	Historical	1,065	5.082%	54	-	-	54
454	2028	Bonneville Dam	Historical	107,256	5.022%	5,387	-	-	5,387
455	2028	Chief Joseph	Historical	29,608	4.475%	1,325	-	-	1,325
456	2028	Columbia Basin	Historical	72,526	5.475%	3,971	-	-	3,971
457	2028	Columbia River Fish Mitigation	Historical	1,629,314	4.131%	67,305	-	-	67,305
458	2028	Cougar	Historical	16,682	4.576%	763	-	-	763
459	2028	Detroit Lake/Big Cliff	Historical	1,817	4.463%	81	-	-	81
460	2028	Dworshak	Historical	4,810	4.785%	230	-	-	230
461	2028	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
462	2028	Hills Creek	Historical	202	3.813%	8	-	-	8

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
463	2028	Hungry Horse Dam	Historical	4,710	4.795%	226	-	-	226
464	2028	Ice Harbor	Historical	16,845	4.719%	795	-	-	795
465	2028	John Day	Historical	18,421	4.492%	827	-	-	827
466	2028	Libby	Historical	1,774	4.751%	84	-	-	84
467	2028	Little Goose	Historical	3,521	4.406%	155	-	-	155
468	2028	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
469	2028	Lost Creek	Historical	7	3.748%		-	-	
470	2028	Lower Granite	Historical	13,666	4.328%	591	-	-	591
471	2028	Lower Monument	Historical	8,147	4.756%	387	-	-	387
472	2028	Lower Snake Fish and Wildlife	Historical	3,571	4.714%	168	-	-	168
473	2028	McNary	Historical	13,414	4.747%	637	-	-	637
474	2028	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
475	2028	RRP - Green Springs	Historical	3	3.244%		-	-	
476	2028	The Dalles	Historical	41,703	5.076%	2,117	-	-	2,117
477	2028	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
478	2028	Bureau Direct	Historical	923,000	3.636%	33,564	-	-	33,564
479	2028	Conservation	Historical	25,000	0.242%	60	-	(50)	10
480	2028	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
481	2028	Fish and Wildlife	Historical	243,000	3.291%	7,997	-	-	7,997
482	2028	Replacements	Historical	1,747,483	4.670%	81,607	-	-	81,607
483	2028	Replacements	New	218,435	2.335%	5,100	-	-	5,100
484	2028	Float	Historical	-	-	(1,215)	-	-	(1,215)
485	**FY 2028**	**Subtotal:**		**5,696,544**		**234,421**	**-**	**(50)**	**234,371**
486	2029	Albeni Falls	Historical	580	4.988%	29	-	-	29
487	2029	Boise	Historical	1,065	5.082%	54	-	-	54
488	2029	Bonneville Dam	Historical	104,726	5.002%	5,238	-	-	5,238
489	2029	Chief Joseph	Historical	29,263	4.459%	1,305	-	-	1,305
490	2029	Columbia Basin	Historical	21,763	4.542%	988	-	-	988
491	2029	Columbia River Fish Mitigation	Historical	1,629,314	4.131%	67,305	-	-	67,305
492	2029	Cougar	Historical	16,682	4.576%	763	-	-	763
493	2029	Detroit Lake/Big Cliff	Historical	1,817	4.463%	81	-	-	81
494	2029	Dworshak	Historical	4,810	4.785%	230	-	-	230
495	2029	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
496	2029	Hills Creek	Historical	202	3.813%	8	-	-	8
497	2029	Hungry Horse Dam	Historical	4,710	4.795%	226	-	-	226
498	2029	Ice Harbor	Historical	16,845	4.719%	795	-	-	795
499	2029	John Day	Historical	18,421	4.492%	827	-	-	827
500	2029	Libby	Historical	1,774	4.751%	84	-	-	84
501	2029	Little Goose	Historical	3,521	4.406%	155	-	-	155
502	2029	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
503	2029	Lost Creek	Historical	7	3.748%		-	-	
504	2029	Lower Granite	Historical	13,666	4.328%	591	-	-	591
505	2029	Lower Monument	Historical	8,147	4.756%	387	-	-	387
506	2029	Lower Snake Fish and Wildlife	Historical	3,571	4.714%	168	-	-	168
507	2029	McNary	Historical	13,414	4.747%	637	-	-	637
508	2029	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
509	2029	RRP - Green Springs	Historical	3	3.244%		-	-	
510	2029	The Dalles	Historical	40,478	5.063%	2,049	-	-	2,049
511	2029	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
512	2029	Bureau Direct	Historical	923,000	3.566%	32,915	-	(325)	32,590
513	2029	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
514	2029	Fish and Wildlife	Historical	217,000	2.976%	6,459	-	(419)	6,040
515	2029	Replacements	Historical	1,965,919	4.670%	91,808	-	-	91,808
516	2029	Replacements	New	218,435	2.335%	5,100	-	-	5,100
517	2029	Float	Historical	-	-	(2,398)	-	-	(2,398)
518	**FY 2029**	**Subtotal:**		**5,809,117**		**237,973**	**-**	**(743)**	**237,229**
519	2030	Albeni Falls	Historical	580	4.988%	29	-	-	29
520	2030	Boise	Historical	1,065	5.082%	54	-	-	54
521	2030	Bonneville Dam	Historical	53,588	4.666%	2,500	-	-	2,500
522	2030	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
523	2030	Columbia Basin	Historical	21,763	4.542%	988	-	-	988
524	2030	Columbia River Fish Mitigation	Historical	1,465,234	4.005%	58,676	-	-	58,676
525	2030	Cougar	Historical	13,060	4.354%	569	-	-	569
526	2030	Detroit Lake/Big Cliff	Historical	1,576	4.358%	69	-	-	69
527	2030	Dworshak	Historical	3,220	4.545%	146	-	-	146
528	2030	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
529	2030	Hills Creek	Historical	154	3.404%	5	-	-	5

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Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
530	2030	Hungry Horse Dam	Historical	1,759	4.242%	75	-	-	75
531	2030	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
532	2030	John Day	Historical	9,254	3.694%	342	-	-	342
533	2030	Libby	Historical	1,774	4.751%	84	-	-	84
534	2030	Little Goose	Historical	3,280	4.346%	143	-	-	143
535	2030	Lookout Dam	Historical	883	4.435%	39	-	-	39
536	2030	Lost Creek	Historical	7	3.748%		-	-	
537	2030	Lower Granite	Historical	11,101	4.081%	453	-	-	453
538	2030	Lower Monument	Historical	4,146	4.191%	174	-	-	174
539	2030	Lower Snake Fish and Wildlife	Historical	2,342	4.331%	101	-	-	101
540	2030	McNary	Historical	6,630	4.130%	274	-	-	274
541	2030	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
542	2030	RRP - Green Springs	Historical	3	3.244%		-	-	
543	2030	The Dalles	Historical	4,277	4.528%	194	-	-	194
544	2030	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
545	2030	Bureau Direct	Historical	898,000	3.331%	29,916	-	(1,121)	28,795
546	2030	Corps	Historical	521,000	4.041%	21,053	-	(131)	20,923
547	2030	Fish and Wildlife	Historical	161,000	3.599%	5,794	-	-	5,794
548	2030	Replacements	Historical	2,184,354	4.670%	102,009	-	-	102,009
549	2030	Replacements	New	218,435	2.335%	5,100	-	-	5,100
550	2030	Float	Historical	-	-	(1,995)	-	-	(1,995)
551	**FY 2030**	**Subtotal:**		**5,643,478**		**228,954**	**-**	**(1,252)**	**227,703**
552	2031	Albeni Falls	Historical	99	4.322%	4	-	-	4
553	2031	Boise	Historical	162	4.844%	8	-	-	8
554	2031	Bonneville Dam	Historical	33,863	4.398%	1,489	-	-	1,489
555	2031	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
556	2031	Columbia Basin	Historical	10,800	3.951%	427	-	-	427
557	2031	Columbia River Fish Mitigation	Historical	1,393,282	3.950%	55,029	-	-	55,029
558	2031	Cougar	Historical	4,929	3.082%	152	-	-	152
559	2031	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
560	2031	Dworshak	Historical	2,508	4.381%	110	-	-	110
561	2031	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
562	2031	Hills Creek	Historical	154	3.404%	5	-	-	5
563	2031	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
564	2031	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
565	2031	John Day	Historical	9,021	3.660%	330	-	-	330
566	2031	Libby	Historical	1,774	4.751%	84	-	-	84
567	2031	Little Goose	Historical	3,280	4.346%	143	-	-	143
568	2031	Lookout Dam	Historical	311	3.396%	11	-	-	11
569	2031	Lost Creek	Historical	7	3.748%		-	-	
570	2031	Lower Granite	Historical	11,101	4.081%	453	-	-	453
571	2031	Lower Monument	Historical	4,146	4.191%	174	-	-	174
572	2031	Lower Snake Fish and Wildlife	Historical	2,342	4.331%	101	-	-	101
573	2031	McNary	Historical	6,630	4.130%	274	-	-	274
574	2031	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
575	2031	RRP - Green Springs	Historical	3	3.244%		-	-	
576	2031	The Dalles	Historical	4,137	4.512%	187	-	-	187
577	2031	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
578	2031	Bureau Direct	Historical	730,000	3.142%	22,934	-	(1,165)	21,769
579	2031	Corps	Historical	506,000	3.895%	19,706	-	(585)	19,121
580	2031	Fish and Wildlife	Historical	153,000	3.751%	5,740	-	(3)	5,736
581	2031	Replacements	Historical	2,402,789	4.670%	112,210	-	-	112,210
582	2031	Replacements	New	218,435	2.335%	5,100	-	-	5,100
583	2031	Float	Historical	-	-	(2,228)	-	-	(2,228)
584	**FY 2031**	**Subtotal:**		**5,555,776**		**224,680**	**-**	**(1,754)**	**222,927**
585	2032	Albeni Falls	Historical	99	4.322%	4	-	-	4
586	2032	Boise	Historical	86	4.707%	4	-	-	4
587	2032	Bonneville Dam	Historical	32,739	4.378%	1,433	-	-	1,433
588	2032	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
589	2032	Columbia Basin	Historical	9,871	3.852%	380	-	-	380
590	2032	Columbia River Fish Mitigation	Historical	1,371,818	3.933%	53,955	-	-	53,955
591	2032	Cougar	Historical	4,810	3.035%	146	-	-	146
592	2032	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
593	2032	Dworshak	Historical	2,508	4.381%	110	-	-	110
594	2032	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
595	2032	Hills Creek	Historical	154	3.404%	5	-	-	5
596	2032	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
597	2032	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
598	2032	John Day	Historical	9,021	3.660%	330	-	-	330
599	2032	Libby	Historical	1,774	4.751%	84	-	-	84
600	2032	Little Goose	Historical	3,280	4.346%	143	-	-	143
601	2032	Lookout Dam	Historical	311	3.396%	11	-	-	11
602	2032	Lost Creek	Historical	7	3.748%		-	-	
603	2032	Lower Granite	Historical	11,101	4.081%	453	-	-	453
604	2032	Lower Monument	Historical	4,146	4.191%	174	-	-	174
605	2032	Lower Snake Fish and Wildlife	Historical	2,342	4.331%	101	-	-	101
606	2032	McNary	Historical	6,630	4.130%	274	-	-	274
607	2032	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
608	2032	RRP - Green Springs	Historical	3	3.244%		-	-	
609	2032	The Dalles	Historical	4,137	4.512%	187	-	-	187

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
610	2032	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
611	2032	Bureau Direct	Historical	505,439	2.541%	12,841	-	(1,452)	11,389
612	2032	Corps	Historical	412,000	3.752%	15,457	-	(469)	14,988
613	2032	Fish and Wildlife	Historical	140,000	4.076%	5,706	-	-	5,706
614	2032	Replacements	Historical	2,621,225	4.670%	122,411	-	-	122,411
615	2032	Replacements	New	218,435	2.335%	5,100	-	-	5,100
616	2032	Float	Historical	-	-	(2,724)	-	-	(2,724)
617	**FY 2032**	**Subtotal:**		**5,418,938**		**218,823**	**-**	**(1,921)**	**216,903**
618	2033	Albeni Falls	Historical	99	4.322%	4	-	-	4
619	2033	Boise	Historical	86	4.707%	4	-	-	4
620	2033	Bonneville Dam	Historical	32,739	4.378%	1,433	-	-	1,433
621	2033	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
622	2033	Columbia Basin	Historical	9,871	3.852%	380	-	-	380
623	2033	Columbia River Fish Mitigation	Historical	1,219,054	3.862%	47,081	-	-	47,081
624	2033	Cougar	Historical	4,810	3.035%	146	-	-	146
625	2033	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
626	2033	Dworshak	Historical	2,508	4.381%	110	-	-	110
627	2033	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
628	2033	Hills Creek	Historical	154	3.404%	5	-	-	5
629	2033	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
630	2033	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
631	2033	John Day	Historical	8,420	3.600%	303	-	-	303
632	2033	Libby	Historical	1,774	4.751%	84	-	-	84
633	2033	Little Goose	Historical	3,280	4.346%	143	-	-	143
634	2033	Lookout Dam	Historical	311	3.396%	11	-	-	11
635	2033	Lost Creek	Historical	7	3.748%		-	-	
636	2033	Lower Granite	Historical	11,101	4.081%	453	-	-	453
637	2033	Lower Monument	Historical	3,861	4.168%	161	-	-	161
638	2033	Lower Snake Fish and Wildlife	Historical	1,963	4.298%	84	-	-	84
639	2033	McNary	Historical	2,550	3.537%	90	-	-	90
640	2033	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
641	2033	RRP - Green Springs	Historical	3	3.244%		-	-	
642	2033	The Dalles	Historical	2,107	4.524%	95	-	-	95
643	2033	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
644	2033	Bureau Direct	Historical	304,000	2.318%	7,046	-	(96)	6,950
645	2033	Corps	Historical	330,000	3.409%	11,249	-	(547)	10,702
646	2033	Fish and Wildlife	Historical	95,000	4.202%	3,992	-	-	3,992
647	2033	Replacements	Historical	2,839,660	4.670%	132,612	-	-	132,612
648	2033	Replacements	New	218,435	2.335%	5,100	-	-	5,100
649	2033	Float	Historical	-	-	(2,867)	-	-	(2,867)
650	**FY 2033**	**Subtotal:**		**5,148,796**		**209,958**	**-**	**(643)**	**209,315**
651	2034	Albeni Falls	Historical	99	4.322%	4	-	-	4
652	2034	Boise	Historical	71	4.749%	3	-	-	3
653	2034	Bonneville Dam	Historical	30,111	4.367%	1,315	-	-	1,315
654	2034	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
655	2034	Columbia Basin	Historical	7,884	3.688%	291	-	-	291
656	2034	Columbia River Fish Mitigation	Historical	1,005,423	3.727%	37,468	-	-	37,468
657	2034	Cougar	Historical	4,701	3.001%	141	-	-	141
658	2034	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
659	2034	Dworshak	Historical	2,435	4.377%	107	-	-	107
660	2034	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
661	2034	Hills Creek	Historical	154	3.404%	5	-	-	5
662	2034	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
663	2034	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
664	2034	John Day	Historical	8,420	3.600%	303	-	-	303
665	2034	Libby	Historical	1,774	4.751%	84	-	-	84
666	2034	Little Goose	Historical	3,280	4.346%	143	-	-	143
667	2034	Lookout Dam	Historical	311	3.396%	11	-	-	11
668	2034	Lost Creek	Historical	7	3.748%		-	-	
669	2034	Lower Granite	Historical	11,101	4.081%	453	-	-	453
670	2034	Lower Monument	Historical	3,861	4.168%	161	-	-	161
671	2034	Lower Snake Fish and Wildlife	Historical	1,963	4.298%	84	-	-	84
672	2034	McNary	Historical	2,550	3.537%	90	-	-	90
673	2034	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
674	2034	RRP - Green Springs	Historical	3	3.244%		-	-	
675	2034	The Dalles	Historical	2,107	4.524%	95	-	-	95

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
676	2034	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
677	2034	Bureau Direct	Historical	213,092	1.846%	3,933	-	(431)	3,502
678	2034	Corps	Historical	166,000	2.667%	4,426	-	(380)	4,046
679	2034	Fish and Wildlife	Historical	44,000	4.250%	1,870	-	-	1,870
680	2034	Replacements	Historical	3,058,096	4.670%	142,813	-	-	142,813
681	2034	Replacements	New	218,435	2.335%	5,100	-	-	5,100
682	2034	Float	Historical	-	-	(2,848)	-	-	(2,848)
683	**FY 2034**	**Subtotal:**		**4,842,881**		**198,291**	**-**	**(812)**	**197,480**
684	2035	Albeni Falls	Historical	57	4.375%	2	-	-	2
685	2035	Boise	Historical	68	4.763%	3	-	-	3
686	2035	Bonneville Dam	Historical	25,942	4.373%	1,134	-	-	1,134
687	2035	Chief Joseph	Historical	3,542	4.856%	172	-	-	172
688	2035	Columbia Basin	Historical	7,008	3.618%	254	-	-	254
689	2035	Columbia River Fish Mitigation	Historical	814,779	3.598%	29,319	-	-	29,319
690	2035	Cougar	Historical	4,521	2.947%	133	-	-	133
691	2035	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
692	2035	Dworshak	Historical	10	4.877%		-	-	
693	2035	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
694	2035	Hills Creek	Historical	154	3.404%	5	-	-	5
695	2035	Hungry Horse Dam	Historical	686	3.908%	27	-	-	27
696	2035	Ice Harbor	Historical	4,123	3.358%	138	-	-	138
697	2035	John Day	Historical	8,064	3.571%	288	-	-	288
698	2035	Libby	Historical	1,734	4.763%	83	-	-	83
699	2035	Little Goose	Historical	79	3.203%	3	-	-	3
700	2035	Lookout Dam	Historical	311	3.396%	11	-	-	11
701	2035	Lost Creek	Historical	7	3.748%		-	-	
702	2035	Lower Granite	Historical	4,276	3.647%	156	-	-	156
703	2035	Lower Monument	Historical	1,529	3.852%	59	-	-	59
704	2035	Lower Snake Fish and Wildlife	Historical	418	4.016%	17	-	-	17
705	2035	McNary	Historical	2,550	3.537%	90	-	-	90
706	2035	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
707	2035	RRP - Green Springs	Historical	3	3.244%		-	-	
708	2035	The Dalles	Historical	2,107	4.524%	95	-	-	95
709	2035	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
710	2035	Bureau Direct	Historical	71,000	1.289%	915	-	(350)	566
711	2035	Corps	Historical	58,000	3.743%	2,171	-	(183)	1,988
712	2035	Replacements	Historical	3,276,531	4.670%	153,014	-	-	153,014
713	2035	Replacements	New	218,435	2.335%	5,100	-	-	5,100
714	2035	Float	Historical	-	-	(2,850)	-	-	(2,850)
715	**FY 2035**	**Subtotal:**		**4,526,256**		**191,003**	**-**	**(532)**	**190,471**
716	2036	Albeni Falls	Historical	57	4.375%	2	-	-	2
717	2036	Boise	Historical	68	4.763%	3	-	-	3
718	2036	Bonneville Dam	Historical	14,979	4.828%	723	-	-	723
719	2036	Chief Joseph	Historical	3,538	4.857%	172	-	-	172
720	2036	Columbia Basin	Historical	5,266	3.574%	188	-	-	188
721	2036	Columbia River Fish Mitigation	Historical	391,886	3.367%	13,197	-	-	13,197
722	2036	Cougar	Historical	4,227	2.891%	122	-	-	122
723	2036	Detroit Lake/Big Cliff	Historical	528	2.875%	15	-	-	15
724	2036	Dworshak	Historical	10	4.877%		-	-	
725	2036	Green Peter/Foster	Historical	47	3.324%	2	-	-	2
726	2036	Hills Creek	Historical	142	3.375%	5	-	-	5
727	2036	Hungry Horse Dam	Historical	171	4.373%	7	-	-	7
728	2036	Ice Harbor	Historical	3,304	3.261%	108	-	-	108
729	2036	John Day	Historical	7,890	3.567%	281	-	-	281
730	2036	Libby	Historical	1,582	4.860%	77	-	-	77
731	2036	Little Goose	Historical	79	3.203%	3	-	-	3
732	2036	Lookout Dam	Historical	294	3.375%	10	-	-	10
733	2036	Lower Granite	Historical	1,623	3.274%	53	-	-	53
734	2036	Lower Monument	Historical	99	3.514%	3	-	-	3
735	2036	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
736	2036	McNary	Historical	1,226	3.230%	40	-	-	40
737	2036	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
738	2036	RRP - Green Springs	Historical	3	3.244%		-	-	
739	2036	The Dalles	Historical	2,107	4.524%	95	-	-	95
740	2036	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
741	2036	Bureau Direct	Historical	32,151	0.275%	88	-	(29)	59

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
742	2036	Corps	Historical	2,368	0.324%	8	-	(1)	6
743	2036	Replacements	Historical	3,494,966	4.607%	161,014	-	-	161,014
744	2036	Replacements	New	218,435	2.335%	5,100	-	-	5,100
745	2036	Float	Historical	-	-	(2,833)	-	-	(2,833)
746	**FY 2036**	**Subtotal:**		**4,206,382**		**179,115**	**-**	**(30)**	**179,085**
747	2037	Albeni Falls	Historical	57	4.375%	2	-	-	2
748	2037	Boise	Historical	64	4.875%	3	-	-	3
749	2037	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
750	2037	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
751	2037	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
752	2037	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
753	2037	Dworshak	Historical	10	4.877%		-	-	
754	2037	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
755	2037	Ice Harbor	Historical	14	4.874%	1	-	-	1
756	2037	John Day	Historical	1,548	4.375%	68	-	-	68
757	2037	Libby	Historical	1,567	4.875%	76	-	-	76
758	2037	Little Goose	Historical	13	4.877%	1	-	-	1
759	2037	Lower Granite	Historical	24	4.875%	1	-	-	1
760	2037	Lower Monument	Historical	9	4.871%		-	-	
761	2037	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
762	2037	McNary	Historical	215	4.875%	10	-	-	10
763	2037	The Dalles	Historical	1,651	4.875%	80	-	-	80
764	2037	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
765	2037	Replacements	Historical	3,619,156	4.311%	156,019	-	-	156,019
766	2037	Replacements	New	218,435	2.335%	5,100	-	-	5,100
767	2037	Float	Historical	-	-	(2,824)	-	-	(2,824)
768	**FY 2037**	**Subtotal:**		**3,899,825**		**161,315**	**-**	**-**	**161,315**
769	2038	Albeni Falls	Historical	57	4.375%	2	-	-	2
770	2038	Boise	Historical	64	4.875%	3	-	-	3
771	2038	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
772	2038	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
773	2038	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
774	2038	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
775	2038	Dworshak	Historical	10	4.877%		-	-	
776	2038	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
777	2038	Ice Harbor	Historical	14	4.874%	1	-	-	1
778	2038	John Day	Historical	1,548	4.375%	68	-	-	68
779	2038	Libby	Historical	1,567	4.875%	76	-	-	76
780	2038	Little Goose	Historical	13	4.877%	1	-	-	1
781	2038	Lower Granite	Historical	24	4.875%	1	-	-	1
782	2038	Lower Monument	Historical	9	4.871%		-	-	
783	2038	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
784	2038	McNary	Historical	215	4.875%	10	-	-	10
785	2038	The Dalles	Historical	1,651	4.875%	80	-	-	80
786	2038	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
787	2038	Replacements	Historical	3,281,045	4.244%	139,233	-	-	139,233
788	2038	Replacements	New	218,435	2.335%	5,100	-	-	5,100
789	2038	Float	Historical	-	-	(2,902)	-	-	(2,902)
790	**FY 2038**	**Subtotal:**		**3,561,714**		**144,451**	**-**	**-**	**144,451**
791	2039	Albeni Falls	Historical	57	4.375%	2	-	-	2
792	2039	Boise	Historical	64	4.875%	3	-	-	3
793	2039	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
794	2039	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
795	2039	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
796	2039	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
797	2039	Dworshak	Historical	10	4.877%		-	-	
798	2039	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
799	2039	Ice Harbor	Historical	14	4.874%	1	-	-	1
800	2039	John Day	Historical	1,548	4.375%	68	-	-	68
801	2039	Libby	Historical	1,567	4.875%	76	-	-	76
802	2039	Little Goose	Historical	13	4.877%	1	-	-	1
803	2039	Lower Granite	Historical	24	4.875%	1	-	-	1
804	2039	Lower Monument	Historical	9	4.871%		-	-	
805	2039	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
806	2039	McNary	Historical	215	4.875%	10	-	-	10
807	2039	The Dalles	Historical	1,651	4.875%	80	-	-	80

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($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
808	2039	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
809	2039	Replacements	Historical	2,900,270	4.158%	120,590	-	-	120,590
810	2039	Replacements	New	218,435	2.335%	5,100	-	-	5,100
811	2039	Float	Historical	-	-	(3,081)	-	-	(3,081)
812	**FY 2039**	**Subtotal:**		**3,180,939**		**125,629**	**-**	**-**	**125,629**
813	2040	Albeni Falls	Historical	57	4.375%	2	-	-	2
814	2040	Boise	Historical	64	4.875%	3	-	-	3
815	2040	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
816	2040	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
817	2040	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
818	2040	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
819	2040	Dworshak	Historical	10	4.877%		-	-	
820	2040	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
821	2040	Ice Harbor	Historical	14	4.874%	1	-	-	1
822	2040	John Day	Historical	1,548	4.375%	68	-	-	68
823	2040	Libby	Historical	1,567	4.875%	76	-	-	76
824	2040	Little Goose	Historical	13	4.877%	1	-	-	1
825	2040	Lower Granite	Historical	24	4.875%	1	-	-	1
826	2040	Lower Monument	Historical	9	4.871%		-	-	
827	2040	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
828	2040	McNary	Historical	215	4.875%	10	-	-	10
829	2040	The Dalles	Historical	1,651	4.875%	80	-	-	80
830	2040	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
831	2040	Replacements	Historical	2,482,621	4.037%	100,224	-	-	100,224
832	2040	Replacements	New	218,435	2.335%	5,100	-	-	5,100
833	2040	Float	Historical	-	-	(3,133)	-	-	(3,133)
834	**FY 2040**	**Subtotal:**		**2,763,290**		**105,210**	**-**	**-**	**105,210**
835	2041	Albeni Falls	Historical	57	4.375%	2	-	-	2
836	2041	Boise	Historical	64	4.875%	3	-	-	3
837	2041	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
838	2041	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
839	2041	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
840	2041	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
841	2041	Dworshak	Historical	10	4.877%		-	-	
842	2041	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
843	2041	Ice Harbor	Historical	14	4.874%	1	-	-	1
844	2041	John Day	Historical	1,548	4.375%	68	-	-	68
845	2041	Libby	Historical	1,567	4.875%	76	-	-	76
846	2041	Little Goose	Historical	13	4.877%	1	-	-	1
847	2041	Lower Granite	Historical	24	4.875%	1	-	-	1
848	2041	Lower Monument	Historical	9	4.871%		-	-	
849	2041	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
850	2041	McNary	Historical	215	4.875%	10	-	-	10
851	2041	The Dalles	Historical	1,651	4.875%	80	-	-	80
852	2041	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
853	2041	Replacements	Historical	2,028,063	3.862%	78,321	-	-	78,321
854	2041	Replacements	New	218,435	2.335%	5,100	-	-	5,100
855	2041	Float	Historical	-	-	(3,209)	-	-	(3,209)
856	**FY 2041**	**Subtotal:**		**2,308,732**		**83,231**	**-**	**-**	**83,231**
857	2042	Albeni Falls	Historical	57	4.375%	2	-	-	2
858	2042	Boise	Historical	64	4.875%	3	-	-	3
859	2042	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
860	2042	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
861	2042	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
862	2042	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
863	2042	Dworshak	Historical	10	4.877%		-	-	
864	2042	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
865	2042	Ice Harbor	Historical	14	4.874%	1	-	-	1
866	2042	John Day	Historical	1,548	4.375%	68	-	-	68
867	2042	Libby	Historical	1,567	4.875%	76	-	-	76
868	2042	Little Goose	Historical	13	4.877%	1	-	-	1
869	2042	Lower Granite	Historical	24	4.875%	1	-	-	1
870	2042	Lower Monument	Historical	9	4.871%		-	-	
871	2042	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
872	2042	McNary	Historical	215	4.875%	10	-	-	10
873	2042	The Dalles	Historical	1,651	4.875%	80	-	-	80
874	2042	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
875	2042	Replacements	Historical	1,544,592	3.688%	56,963	-	-	56,963
876	2042	Replacements	New	218,435	2.335%	5,100	-	-	5,100
877	2042	Float	Historical	-	-	(3,258)	-	-	(3,258)
878	**FY 2042**	**Subtotal:**		**1,825,262**		**61,824**	**-**	**-**	**61,824**
879	2043	Albeni Falls	Historical	57	4.375%	2	-	-	2
880	2043	Boise	Historical	64	4.875%	3	-	-	3
881	2043	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
882	2043	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
883	2043	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
884	2043	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
885	2043	Dworshak	Historical	10	4.877%		-	-	
886	2043	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
887	2043	Ice Harbor	Historical	14	4.874%	1	-	-	1
888	2043	John Day	Historical	1,548	4.375%	68	-	-	68
889	2043	Libby	Historical	1,567	4.875%	76	-	-	76
890	2043	Little Goose	Historical	13	4.877%	1	-	-	1
891	2043	Lower Granite	Historical	24	4.875%	1	-	-	1
892	2043	Lower Monument	Historical	9	4.871%		-	-	
893	2043	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
894	2043	McNary	Historical	215	4.875%	10	-	-	10
895	2043	The Dalles	Historical	1,651	4.875%	80	-	-	80

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
896	2043	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
897	2043	Replacements	Historical	1,113,373	3.106%	34,581	-	-	34,581
898	2043	Replacements	New	218,435	2.335%	5,100	-	-	5,100
899	2043	Float	Historical	-	-	(3,302)	-	-	(3,302)
900	**FY 2043**	**Subtotal:**		**1,394,043**		**39,398**	**-**	**-**	**39,398**
901	2044	Albeni Falls	Historical	57	4.375%	2	-	-	2
902	2044	Boise	Historical	64	4.875%	3	-	-	3
903	2044	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
904	2044	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
905	2044	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
906	2044	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
907	2044	Dworshak	Historical	10	4.877%		-	-	
908	2044	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
909	2044	Ice Harbor	Historical	14	4.874%	1	-	-	1
910	2044	John Day	Historical	1,548	4.375%	68	-	-	68
911	2044	Libby	Historical	1,567	4.875%	76	-	-	76
912	2044	Little Goose	Historical	13	4.877%	1	-	-	1
913	2044	Lower Granite	Historical	24	4.875%	1	-	-	1
914	2044	Lower Monument	Historical	9	4.871%		-	-	
915	2044	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
916	2044	McNary	Historical	215	4.875%	10	-	-	10
917	2044	The Dalles	Historical	1,651	4.875%	80	-	-	80
918	2044	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
919	2044	Replacements	Historical	586,067	2.335%	13,685	-	-	13,685
920	2044	Replacements	New	218,435	2.335%	5,100	-	-	5,100
921	2044	Float	Historical	-	-	(2,853)	-	-	(2,853)
922	**FY 2044**	**Subtotal:**		**866,737**		**18,951**	**-**	**-**	**18,951**
923	2045	Albeni Falls	Historical	57	4.375%	2	-	-	2
924	2045	Boise	Historical	64	4.875%	3	-	-	3
925	2045	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
926	2045	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
927	2045	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
928	2045	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
929	2045	Dworshak	Historical	10	4.877%		-	-	
930	2045	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
931	2045	Ice Harbor	Historical	14	4.874%	1	-	-	1
932	2045	John Day	Historical	1,548	4.375%	68	-	-	68
933	2045	Libby	Historical	1,567	4.875%	76	-	-	76
934	2045	Little Goose	Historical	13	4.877%	1	-	-	1
935	2045	Lower Granite	Historical	24	4.875%	1	-	-	1
936	2045	Lower Monument	Historical	9	4.871%		-	-	
937	2045	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
938	2045	McNary	Historical	215	4.875%	10	-	-	10
939	2045	The Dalles	Historical	1,651	4.875%	80	-	-	80
940	2045	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
941	2045	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
942	2045	Replacements	New	218,435	2.335%	5,100	-	-	5,100
943	2045	Float	Historical	-	-	(1,393)	-	-	(1,393)
944	**FY 2045**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
945	2046	Albeni Falls	Historical	57	4.375%	2	-	-	2
946	2046	Boise	Historical	64	4.875%	3	-	-	3
947	2046	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
948	2046	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
949	2046	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
950	2046	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
951	2046	Dworshak	Historical	10	4.877%		-	-	
952	2046	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
953	2046	Ice Harbor	Historical	14	4.874%	1	-	-	1
954	2046	John Day	Historical	1,548	4.375%	68	-	-	68
955	2046	Libby	Historical	1,567	4.875%	76	-	-	76
956	2046	Little Goose	Historical	13	4.877%	1	-	-	1
957	2046	Lower Granite	Historical	24	4.875%	1	-	-	1
958	2046	Lower Monument	Historical	9	4.871%		-	-	
959	2046	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
960	2046	McNary	Historical	215	4.875%	10	-	-	10
961	2046	The Dalles	Historical	1,651	4.875%	80	-	-	80

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
962	2046	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
963	2046	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
964	2046	Replacements	New	218,435	2.335%	5,100	-	-	5,100
965	2046	Float	Historical	-	-	(1,393)	-	-	(1,393)
966	**FY 2046**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
967	2047	Albeni Falls	Historical	57	4.375%	2	-	-	2
968	2047	Boise	Historical	64	4.875%	3	-	-	3
969	2047	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
970	2047	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
971	2047	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
972	2047	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
973	2047	Dworshak	Historical	10	4.877%		-	-	
974	2047	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
975	2047	Ice Harbor	Historical	14	4.874%	1	-	-	1
976	2047	John Day	Historical	1,548	4.375%	68	-	-	68
977	2047	Libby	Historical	1,567	4.875%	76	-	-	76
978	2047	Little Goose	Historical	13	4.877%	1	-	-	1
979	2047	Lower Granite	Historical	24	4.875%	1	-	-	1
980	2047	Lower Monument	Historical	9	4.871%		-	-	
981	2047	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
982	2047	McNary	Historical	215	4.875%	10	-	-	10
983	2047	The Dalles	Historical	1,651	4.875%	80	-	-	80
984	2047	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
985	2047	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
986	2047	Replacements	New	218,435	2.335%	5,100	-	-	5,100
987	2047	Float	Historical	-	-	(1,393)	-	-	(1,393)
988	**FY 2047**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
989	2048	Albeni Falls	Historical	57	4.375%	2	-	-	2
990	2048	Boise	Historical	64	4.875%	3	-	-	3
991	2048	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
992	2048	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
993	2048	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
994	2048	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
995	2048	Dworshak	Historical	10	4.877%		-	-	
996	2048	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
997	2048	Ice Harbor	Historical	14	4.874%	1	-	-	1
998	2048	John Day	Historical	1,548	4.375%	68	-	-	68
999	2048	Libby	Historical	1,567	4.875%	76	-	-	76
1000	2048	Little Goose	Historical	13	4.877%	1	-	-	1
1001	2048	Lower Granite	Historical	24	4.875%	1	-	-	1
1002	2048	Lower Monument	Historical	9	4.871%		-	-	
1003	2048	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1004	2048	McNary	Historical	215	4.875%	10	-	-	10
1005	2048	The Dalles	Historical	1,651	4.875%	80	-	-	80
1006	2048	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1007	2048	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1008	2048	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1009	2048	Float	Historical	-	-	(1,393)	-	-	(1,393)
1010	**FY 2048**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1011	2049	Albeni Falls	Historical	57	4.375%	2	-	-	2
1012	2049	Boise	Historical	64	4.875%	3	-	-	3
1013	2049	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1014	2049	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1015	2049	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1016	2049	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1017	2049	Dworshak	Historical	10	4.877%		-	-	
1018	2049	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1019	2049	Ice Harbor	Historical	14	4.874%	1	-	-	1
1020	2049	John Day	Historical	1,548	4.375%	68	-	-	68
1021	2049	Libby	Historical	1,567	4.875%	76	-	-	76
1022	2049	Little Goose	Historical	13	4.877%	1	-	-	1
1023	2049	Lower Granite	Historical	24	4.875%	1	-	-	1
1024	2049	Lower Monument	Historical	9	4.871%		-	-	
1025	2049	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1026	2049	McNary	Historical	215	4.875%	10	-	-	10
1027	2049	The Dalles	Historical	1,651	4.875%	80	-	-	80
1028	2049	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1029	2049	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1030	2049	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1031	2049	Float	Historical	-	-	(1,393)	-	-	(1,393)
1032	**FY 2049**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1033	2050	Albeni Falls	Historical	57	4.375%	2	-	-	2
1034	2050	Boise	Historical	64	4.875%	3	-	-	3
1035	2050	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1036	2050	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1037	2050	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1038	2050	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1039	2050	Dworshak	Historical	10	4.877%		-	-	
1040	2050	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1041	2050	Ice Harbor	Historical	14	4.874%	1	-	-	1
1042	2050	John Day	Historical	1,548	4.375%	68	-	-	68
1043	2050	Libby	Historical	1,567	4.875%	76	-	-	76
1044	2050	Little Goose	Historical	13	4.877%	1	-	-	1
1045	2050	Lower Granite	Historical	24	4.875%	1	-	-	1
1046	2050	Lower Monument	Historical	9	4.871%		-	-	
1047	2050	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1048	2050	McNary	Historical	215	4.875%	10	-	-	10
1049	2050	The Dalles	Historical	1,651	4.875%	80	-	-	80

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
1050	2050	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1051	2050	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1052	2050	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1053	2050	Float	Historical	-	-	(1,393)	-	-	(1,393)
1054	**FY 2050**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1055	2051	Albeni Falls	Historical	57	4.375%	2	-	-	2
1056	2051	Boise	Historical	64	4.875%	3	-	-	3
1057	2051	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1058	2051	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1059	2051	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1060	2051	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1061	2051	Dworshak	Historical	10	4.877%		-	-	
1062	2051	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1063	2051	Ice Harbor	Historical	14	4.874%	1	-	-	1
1064	2051	John Day	Historical	1,548	4.375%	68	-	-	68
1065	2051	Libby	Historical	1,567	4.875%	76	-	-	76
1066	2051	Little Goose	Historical	13	4.877%	1	-	-	1
1067	2051	Lower Granite	Historical	24	4.875%	1	-	-	1
1068	2051	Lower Monument	Historical	9	4.871%		-	-	
1069	2051	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1070	2051	McNary	Historical	215	4.875%	10	-	-	10
1071	2051	The Dalles	Historical	1,651	4.875%	80	-	-	80
1072	2051	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1073	2051	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1074	2051	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1075	2051	Float	Historical	-	-	(1,393)	-	-	(1,393)
1076	**FY 2051**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1077	2052	Albeni Falls	Historical	57	4.375%	2	-	-	2
1078	2052	Boise	Historical	64	4.875%	3	-	-	3
1079	2052	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1080	2052	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1081	2052	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1082	2052	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1083	2052	Dworshak	Historical	10	4.877%		-	-	
1084	2052	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1085	2052	Ice Harbor	Historical	14	4.874%	1	-	-	1
1086	2052	John Day	Historical	1,548	4.375%	68	-	-	68
1087	2052	Libby	Historical	1,567	4.875%	76	-	-	76
1088	2052	Little Goose	Historical	13	4.877%	1	-	-	1
1089	2052	Lower Granite	Historical	24	4.875%	1	-	-	1
1090	2052	Lower Monument	Historical	9	4.871%		-	-	
1091	2052	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1092	2052	McNary	Historical	215	4.875%	10	-	-	10
1093	2052	The Dalles	Historical	1,651	4.875%	80	-	-	80
1094	2052	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1095	2052	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1096	2052	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1097	2052	Float	Historical	-	-	(1,393)	-	-	(1,393)
1098	**FY 2052**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1099	2053	Albeni Falls	Historical	57	4.375%	2	-	-	2
1100	2053	Boise	Historical	64	4.875%	3	-	-	3
1101	2053	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1102	2053	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1103	2053	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1104	2053	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1105	2053	Dworshak	Historical	10	4.877%		-	-	
1106	2053	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1107	2053	Ice Harbor	Historical	14	4.874%	1	-	-	1
1108	2053	John Day	Historical	1,548	4.375%	68	-	-	68
1109	2053	Libby	Historical	1,567	4.875%	76	-	-	76
1110	2053	Little Goose	Historical	13	4.877%	1	-	-	1
1111	2053	Lower Granite	Historical	24	4.875%	1	-	-	1
1112	2053	Lower Monument	Historical	9	4.871%		-	-	
1113	2053	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1114	2053	McNary	Historical	215	4.875%	10	-	-	10
1115	2053	The Dalles	Historical	1,651	4.875%	80	-	-	80
1116	2053	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1117	2053	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1118	2053	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1119	2053	Float	Historical	-	-	(1,393)	-	-	(1,393)
1120	**FY 2053**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1121	2054	Albeni Falls	Historical	57	4.375%	2	-	-	2
1122	2054	Boise	Historical	64	4.875%	3	-	-	3
1123	2054	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1124	2054	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1125	2054	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1126	2054	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1127	2054	Dworshak	Historical	10	4.877%		-	-	
1128	2054	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1129	2054	Ice Harbor	Historical	14	4.874%	1	-	-	1
1130	2054	John Day	Historical	1,548	4.375%	68	-	-	68
1131	2054	Libby	Historical	1,567	4.875%	76	-	-	76
1132	2054	Little Goose	Historical	13	4.877%	1	-	-	1
1133	2054	Lower Granite	Historical	24	4.875%	1	-	-	1
1134	2054	Lower Monument	Historical	9	4.871%		-	-	
1135	2054	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1136	2054	McNary	Historical	215	4.875%	10	-	-	10
1137	2054	The Dalles	Historical	1,651	4.875%	80	-	-	80

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
1138	2054	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1139	2054	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1140	2054	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1141	2054	Float	Historical	-	-	(1,393)	-	-	(1,393)
1142	**FY 2054**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1143	2055	Albeni Falls	Historical	57	4.375%	2	-	-	2
1144	2055	Boise	Historical	64	4.875%	3	-	-	3
1145	2055	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1146	2055	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1147	2055	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1148	2055	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1149	2055	Dworshak	Historical	10	4.877%		-	-	
1150	2055	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1151	2055	Ice Harbor	Historical	14	4.874%	1	-	-	1
1152	2055	John Day	Historical	1,548	4.375%	68	-	-	68
1153	2055	Libby	Historical	1,567	4.875%	76	-	-	76
1154	2055	Little Goose	Historical	13	4.877%	1	-	-	1
1155	2055	Lower Granite	Historical	24	4.875%	1	-	-	1
1156	2055	Lower Monument	Historical	9	4.871%		-	-	
1157	2055	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1158	2055	McNary	Historical	215	4.875%	10	-	-	10
1159	2055	The Dalles	Historical	1,651	4.875%	80	-	-	80
1160	2055	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1161	2055	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1162	2055	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1163	2055	Float	Historical	-	-	(1,393)	-	-	(1,393)
1164	**FY 2055**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1165	2056	Albeni Falls	Historical	57	4.375%	2	-	-	2
1166	2056	Boise	Historical	64	4.875%	3	-	-	3
1167	2056	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1168	2056	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1169	2056	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1170	2056	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1171	2056	Dworshak	Historical	10	4.877%		-	-	
1172	2056	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1173	2056	Ice Harbor	Historical	14	4.874%	1	-	-	1
1174	2056	John Day	Historical	1,548	4.375%	68	-	-	68
1175	2056	Libby	Historical	1,567	4.875%	76	-	-	76
1176	2056	Little Goose	Historical	13	4.877%	1	-	-	1
1177	2056	Lower Granite	Historical	24	4.875%	1	-	-	1
1178	2056	Lower Monument	Historical	9	4.871%		-	-	
1179	2056	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1180	2056	McNary	Historical	215	4.875%	10	-	-	10
1181	2056	The Dalles	Historical	1,651	4.875%	80	-	-	80
1182	2056	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1183	2056	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1184	2056	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1185	2056	Float	Historical	-	-	(1,393)	-	-	(1,393)
1186	**FY 2056**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1187	2057	Albeni Falls	Historical	57	4.375%	2	-	-	2
1188	2057	Boise	Historical	64	4.875%	3	-	-	3
1189	2057	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1190	2057	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1191	2057	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1192	2057	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1193	2057	Dworshak	Historical	10	4.877%		-	-	
1194	2057	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1195	2057	Ice Harbor	Historical	14	4.874%	1	-	-	1
1196	2057	John Day	Historical	1,548	4.375%	68	-	-	68
1197	2057	Libby	Historical	1,567	4.875%	76	-	-	76
1198	2057	Little Goose	Historical	13	4.877%	1	-	-	1
1199	2057	Lower Granite	Historical	24	4.875%	1	-	-	1
1200	2057	Lower Monument	Historical	9	4.871%		-	-	
1201	2057	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1202	2057	McNary	Historical	215	4.875%	10	-	-	10
1203	2057	The Dalles	Historical	1,651	4.875%	80	-	-	80
1204	2057	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1205	2057	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1206	2057	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1207	2057	Float	Historical	-	-	(1,393)	-	-	(1,393)
1208	**FY 2057**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1209	2058	Albeni Falls	Historical	57	4.375%	2	-	-	2
1210	2058	Boise	Historical	64	4.875%	3	-	-	3
1211	2058	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1212	2058	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1213	2058	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1214	2058	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1215	2058	Dworshak	Historical	10	4.877%		-	-	
1216	2058	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1217	2058	Ice Harbor	Historical	14	4.874%	1	-	-	1
1218	2058	John Day	Historical	1,548	4.375%	68	-	-	68
1219	2058	Libby	Historical	1,567	4.875%	76	-	-	76
1220	2058	Little Goose	Historical	13	4.877%	1	-	-	1
1221	2058	Lower Granite	Historical	24	4.875%	1	-	-	1
1222	2058	Lower Monument	Historical	9	4.871%		-	-	
1223	2058	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1224	2058	McNary	Historical	215	4.875%	10	-	-	10

TABLE 12C:
Interest Calculation Summary
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
1225	2058	The Dalles	Historical	1,651	4.875%	80	-	-	80
1226	2058	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1227	2058	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1228	2058	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1229	2058	Float	Historical	-	-	(1,393)	-	-	(1,393)
1230	**FY 2058**	**Subtotal:**		**499,105**		**11,827**	**-**	**-**	**11,827**
1231	2059	Albeni Falls	Historical	57	4.375%	2	-	-	2
1232	2059	Columbia Basin	Historical	1,338	4.375%	59	-	-	59
1233	2059	Hungry Horse Dam	Historical	60	4.376%	3	-	-	3
1234	2059	John Day	Historical	1,548	4.375%	68	-	-	68
1235	2059	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1236	2059	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1237	2059	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1238	2059	Float	Historical	-	-	(1,393)	-	-	(1,393)
1239	**FY 2059**	**Subtotal:**		**439,889**		**8,940**	**-**	**-**	**8,940**
1240	2060	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1241	2060	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1242	2060	Float	Historical	-	-	(1,393)	-	-	(1,393)
1243	**FY 2060**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1244	2061	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1245	2061	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1246	2061	Float	Historical	-	-	(1,393)	-	-	(1,393)
1247	**FY 2061**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1248	2062	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1249	2062	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1250	2062	Float	Historical	-	-	(1,393)	-	-	(1,393)
1251	**FY 2062**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1252	2063	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1253	2063	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1254	2063	Float	Historical	-	-	(1,393)	-	-	(1,393)
1255	**FY 2063**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1256	2064	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1257	2064	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1258	2064	Float	Historical	-	-	(1,393)	-	-	(1,393)
1259	**FY 2064**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1260	2065	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1261	2065	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1262	2065	Float	Historical	-	-	(1,393)	-	-	(1,393)
1263	**FY 2065**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1264	2066	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1265	2066	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1266	2066	Float	Historical	-	-	(1,393)	-	-	(1,393)
1267	**FY 2066**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1268	2067	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1269	2067	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1270	2067	Float	Historical	-	-	(1,393)	-	-	(1,393)
1271	**FY 2067**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1272	2068	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1273	2068	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1274	2068	Float	Historical	-	-	(1,393)	-	-	(1,393)
1275	**FY 2068**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1276	2069	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1277	2069	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1278	2069	Float	Historical	-	-	(1,393)	-	-	(1,393)
1279	**FY 2069**	**Subtotal:**		**436,871**		**8,808**	**-**	**-**	**8,808**
1280	**Grand Total:**			**140,182,330**		**5,347,115**	**-**	**(9,509)**	**5,337,606**

TABLE 12D
Application of Amortization
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
1	2016	Construction (AS)	-	8/12/2011	8/31/2016	3,500	3,500	1.423%	1.423%					3,500		
2	2016	Construction (AS)	-	6/30/2016	9/30/2016	7,000	7,000	0.436%	0.436%					7,000		
3	2016	Bonneville Dam	Corps of Engineers	9/30/1977	9/30/2027	15,670	15,670	7.150%	7.150%					15,670		
4	2016	Chief Joseph	Corps of Engineers	9/30/1977	9/30/2027	30,512	30,512	7.150%	7.150%					30,512		
5	2016	Lost Creek	Corps of Engineers	9/30/1977	9/30/2027	14,293	11,934	7.150%	7.150%					11,934		
6	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1977	9/30/2027	42,764	42,764	7.150%	7.150%					42,764		
7	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1977	9/30/2027	7,964	7,964	7.150%	7.150%					7,964		
8	2016	Lost Creek	Corps of Engineers	9/30/1978	9/30/2027	58	58	7.150%	7.150%					58		
9	2016	Lost Creek	Corps of Engineers	9/30/1979	9/30/2027	60	60	7.150%	7.150%					60		
10	2016	Lost Creek	Corps of Engineers	9/30/1980	9/30/2027	60	60	7.150%	7.150%					60		
11	2016	Lost Creek	Corps of Engineers	9/30/1981	9/30/2027	60	60	7.150%	7.150%					60		
12	2016	Lost Creek	Corps of Engineers	9/30/1982	9/30/2027	60	60	7.150%	7.150%					60		
13	2016	Lost Creek	Corps of Engineers	9/30/1983	9/30/2027	60	60	7.150%	7.150%					60		
14	2016	Lost Creek	Corps of Engineers	9/30/1985	9/30/2027	12	12	7.150%	7.150%					12		
15	2016	Lost Creek	Corps of Engineers	9/30/1986	9/30/2027	6	6	7.150%	7.150%					6		
16	2016	Lost Creek	Corps of Engineers	9/30/1987	9/30/2027	4	4	7.150%	7.150%					4		
17	2016	Chief Joseph	Corps of Engineers	9/30/1978	9/30/2028	75,669	75,669	7.150%	7.150%					75,669		
18	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1978	9/30/2028	42,399	42,399	7.150%	7.150%					42,399		
19	2016	Little Goose	Corps of Engineers	9/30/1978	9/30/2028	49,578	49,578	7.150%	7.150%					49,578		
20	2016	Lower Granite	Corps of Engineers	9/30/1978	9/30/2028	40,611	40,611	7.150%	7.150%					40,611		
21	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1978	9/30/2028	7,896	7,896	7.150%	7.150%					7,896		
22	2016	Little Goose	Corps of Engineers	9/30/1985	9/30/2028	47	47	7.150%	7.150%					47		
23	2016	Chief Joseph	Corps of Engineers	9/30/1979	9/30/2029	60,079	60,079	7.150%	7.150%					60,079		
24	2016	Lower Monument	Corps of Engineers	9/30/1979	9/30/2029	40,669	40,669	7.150%	7.150%					40,669		
25	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1979	9/30/2029	84,118	84,118	7.150%	7.150%					84,118		
26	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1979	9/30/2029	15,666	15,666	7.150%	7.150%					15,666		
27	2016	Chief Joseph	Corps of Engineers	9/30/1985	9/30/2029	16,372	16,372	7.150%	7.150%					16,372		
28	2016	Lower Monument	Corps of Engineers	9/30/1985	9/30/2029	256	256	7.150%	7.150%					256		
29	2016	Chief Joseph	Corps of Engineers	9/30/1986	9/30/2029	5,363	5,363	7.150%	7.150%					5,363		
30	2016	Chief Joseph	Corps of Engineers	9/30/1987	9/30/2029	3,036	3,036	7.150%	7.150%					3,036		
31	2016	Chief Joseph	Corps of Engineers	9/30/1988	9/30/2029	2,722	2,722	7.150%	7.150%					2,722		
32	2016	Chief Joseph	Corps of Engineers	9/30/1989	9/30/2029	2,227	2,227	7.150%	7.150%					2,227		
33	2016	Chief Joseph	Corps of Engineers	9/30/1990	9/30/2029	4,505	4,505	7.150%	7.150%					4,505		
34	2016	Libby	Corps of Engineers	9/30/1994	9/30/2029	286	152	7.150%	7.150%					152		
35	2016	Lower Granite	Corps of Engineers	9/30/1994	9/30/2029	3,543	1,551	7.150%	7.150%					1,551		
36	2016	Dworshak	Corps of Engineers	9/30/1995	9/30/2030	218	218	7.150%	7.150%					218		
37	2016	Libby	Corps of Engineers	9/30/1995	9/30/2030	15	15	7.150%	7.150%					15		
38	2016	Hungry Horse Dam	Bureau of Reclamation	9/30/1995	9/30/2030	536	536	7.150%	7.150%					536		
39	2016	Libby	Corps of Engineers	9/30/1995	9/30/2030	41	41	7.150%	7.150%					41		
40	2016	Hungry Horse Dam	Bureau of Reclamation	9/30/1995	9/30/2030	1,198	1,195	7.150%	7.150%					1,195		
41	2016	Libby	Corps of Engineers	9/30/1995	9/30/2030	94	94	7.150%	7.150%					94		
42	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1981	9/30/2031	40,964	40,964	7.150%	7.150%					40,964		
43	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1981	9/30/2031	455	455	7.150%	7.150%					455		
44	2016	Ice Harbor	Corps of Engineers	9/30/1996	9/30/2031	78	78	7.150%	7.150%					78		
45	2016	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2031	109	109	7.150%	7.150%					109		
46	2016	Lost Creek	Corps of Engineers	9/30/1996	9/30/2031	31	31	7.150%	7.150%					31		
47	2016	Lower Granite	Corps of Engineers	9/30/1996	9/30/2031	206	206	7.150%	7.150%					206		
48	2016	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2031	22	22	7.150%	7.150%					22		
49	2016	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2031	27	27	7.150%	7.150%					27		
50	2016	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2031	251	251	7.150%	7.150%					251		
51	2016	Dworshak	Corps of Engineers	9/30/1996	9/30/2031	6	6	7.150%	7.150%					6		
52	2016	Dworshak	Corps of Engineers	9/30/1996	9/30/2031	203	203	7.150%	7.150%					203		
53	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1982	9/30/2032	203,535	203,535	7.150%	7.150%					203,535		
54	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1982	9/30/2032	2,264	2,264	7.150%	7.150%					2,264		
55	2016	Chief Joseph	Corps of Engineers	9/30/1997	9/30/2032	166	166	7.150%	7.150%					166		
56	2016	McNary	Corps of Engineers	9/30/1997	9/30/2032	30	30	7.150%	7.150%					30		
57	2016	Bonneville Dam	Corps of Engineers	9/30/1997	9/30/2032	518	518	7.150%	7.150%					518		
58	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1983	9/30/2033	62,409	62,409	7.150%	7.150%					62,409		
59	2016	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1983	9/30/2033	30,488	9,472	7.150%	7.150%					9,472		
60	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1983	9/30/2033	694	694	7.150%	7.150%					694		

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
61	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1983	9/30/2033	712	712	7.150%	7.150%					712		
62	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1983	9/30/2033	13,003	13,003	7.150%	7.150%					13,003		
63	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1984	9/30/2033	16,965	16,965	7.150%	7.150%					16,965		
64	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1984	9/30/2033	13,192	13,192	7.150%	7.150%					13,192		
65	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1984	9/30/2033	3,160	3,160	7.150%	7.150%					3,160		
66	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1985	9/30/2033	9,138	9,138	7.150%	7.150%					9,138		
67	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1985	9/30/2033	2,060	2,060	7.150%	7.150%					2,060		
68	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1985	9/30/2033	41,772	41,772	7.150%	7.150%					41,772		
69	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1985	9/30/2033	107	107	7.150%	7.150%					107		
70	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1986	9/30/2033	30,578	30,578	7.150%	7.150%					30,578		
71	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1986	9/30/2033	1,851	1,851	7.150%	7.150%					1,851		
72	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1986	9/30/2033	15,538	15,538	7.150%	7.150%					15,538		
73	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1987	9/30/2033	14,439	14,439	7.150%	7.150%					9,092		
74		**FY 2016 Subtotal:**	**-**	**-**	**-**	**1,084,198**	**1,058,695**							**1,053,348**		
75	2017	Conservation	-	11/30/2012	11/30/2016	20,000	20,000	0.630%	0.630%					20,000		
76	2017	Construction (AS)	-	4/30/2013	4/30/2017	2,450	2,450	0.622%	0.622%					2,450		
77	2017	Construction (AS)	-	6/30/2013	6/30/2017	3,000	3,000	1.271%	1.271%					3,000		
78	2017	Construction (AS)	-	8/31/2013	8/31/2017	2,000	2,000	1.494%	1.494%					2,000		
79	2017	Construction (AS)	-	9/30/2015	9/30/2017	7,700	7,700	0.744%	0.744%					7,700		
80	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1987	9/30/2033	2,801	2,801	7.150%	7.150%					2,801		
81	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1987	9/30/2033	1,730	1,730	7.150%	7.150%					1,730		
82	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1987	9/30/2033	14,439	5,347	7.150%	7.150%					5,347		
83	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1988	9/30/2033	1,271	1,271	7.150%	7.150%					1,271		
84	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1988	9/30/2033	2,294	2,294	7.150%	7.150%					2,294		
85	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1988	9/30/2033	4,351	4,351	7.150%	7.150%					4,351		
86	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1989	9/30/2033	1,232	1,232	7.150%	7.150%					1,232		
87	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1989	9/30/2033	10,902	10,902	7.150%	7.150%					10,902		
88	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1990	9/30/2033	1,588	1,588	7.150%	7.150%					1,588		
89	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1990	9/30/2033	6,383	6,383	7.150%	7.150%					6,383		
90	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1985	9/30/2035	47,921	47,921	7.150%	7.150%					47,921		
91	2017	John Day	Corps of Engineers	9/30/1995	9/30/2035	22	22	7.150%	7.150%					22		
92	2017	John Day	Corps of Engineers	9/30/1995	9/30/2035	52	52	7.150%	7.150%					52		
93	2017	John Day	Corps of Engineers	9/30/1995	9/30/2035	121	121	7.150%	7.150%					121		
94	2017	Lower Monument	Corps of Engineers	9/30/1996	9/30/2036	264	264	7.150%	7.150%					264		
95	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1987	9/30/2037	72,536	72,536	7.150%	7.150%					72,536		
96	2017	Libby	Corps of Engineers	9/30/1988	9/30/2038	18,043	14,781	7.150%	7.150%					14,781		
97	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1988	9/30/2038	805	805	7.150%	7.150%					805		
98	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1990	9/30/2040	1,557	1,557	7.150%	7.150%					1,557		
99	2017	Little Goose	Corps of Engineers	9/30/1995	9/30/2040	17	17	7.150%	7.150%					17		
100	2017	Little Goose	Corps of Engineers	9/30/1995	9/30/2040	450	450	7.150%	7.150%					450		
101	2017	Little Goose	Corps of Engineers	9/30/1995	9/30/2040	733	733	7.150%	7.150%					733		
102	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1991	9/30/2041	4,411	4,411	7.150%	7.150%					4,411		
103	2017	Ice Harbor	Corps of Engineers	9/30/1996	9/30/2041	371	371	7.150%	7.150%					371		
104	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1993	9/30/2043	71,632	71,632	7.150%	7.150%					40,384		
105		**FY 2017 Subtotal:**	**-**	**-**	**-**	**301,076**	**288,722**							**257,473**		
106	2018	Conservation	-	1/31/2013	1/31/2018	9,000	9,000	1.107%	1.107%					9,000		
107	2018	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1993	9/30/2043	71,632	31,248	7.150%	7.150%					31,248		
108	2018	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1994	9/30/2044	5,700	5,700	7.150%	7.150%					5,700		
109	2018	Chief Joseph	Corps of Engineers	9/30/1994	9/30/2044	4,280	4,017	7.150%	7.150%					4,017		
110	2018	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1994	9/30/2044	4,722	4,722	7.150%	7.150%					4,722		
111	2018	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1994	9/30/2044	12,631	12,631	7.150%	7.150%					12,631		
112	2018	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1995	9/30/2045	3,791	3,791	7.150%	7.150%					3,791		
113	2018	Columbia River Fish Mitigation	Corps of Engineers	9/30/1995	9/30/2045	43,343	39,282	7.150%	7.150%					39,282		
114	2018	Detroit Lake/Big Cliff	Corps of Engineers	9/30/1995	9/30/2045	38	38	7.150%	7.150%					38		
115	2018	Lookout Dam	Corps of Engineers	9/30/1995	9/30/2045	80	39	7.150%	7.150%					39		
116	2018	Lost Creek	Corps of Engineers	9/30/1995	9/30/2045	94	94	7.150%	7.150%					94		
117	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	41	41	7.150%	7.150%					41		
118	2018	McNary	Corps of Engineers	9/30/1995	9/30/2045	16	16	7.150%	7.150%					16		
119	2018	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	147	147	7.150%	7.150%					147		
120	2018	Dworshak	Corps of Engineers	9/30/1995	9/30/2045	1,162	1,162	7.150%	7.150%					1,162		

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	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
121	2018	John Day	Corps of Engineers	9/30/1995	9/30/2045	37	37	7.150%	7.150%					37		
122	2018	Lookout Dam	Corps of Engineers	9/30/1995	9/30/2045	33	33	7.150%	7.150%					33		
123	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	99	99	7.150%	7.150%					99		
124	2018	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	531	531	7.150%	7.150%					457		
125	2018	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	562	562	7.150%	7.150%					562		
126	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	624	624	7.150%	7.150%					624		
127	2018	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	1,105	1,105	7.150%	7.150%					1,105		
128	2018	Bonneville Dam	Corps of Engineers	9/30/1995	9/30/2045	243	243	7.150%	7.150%					243		
129	2018	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	712	712	7.150%	7.150%					712		
130	2018	Columbia Basin	Bureau of Reclamation	9/30/1995	9/30/2045	287	287	7.150%	7.150%					287		
131	2018	Hungry Horse Dam	Bureau of Reclamation	9/30/1995	9/30/2045	6,190	6,190	7.150%	7.150%					6,190		
132	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	1,122	1,122	7.150%	7.150%					1,122		
133	2018	Bonneville Dam	Corps of Engineers	9/30/1995	9/30/2045	410	410	7.150%	7.150%					410		
134	2018	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	784	784	7.150%	7.150%					784		
135	2018	Columbia Basin	Bureau of Reclamation	9/30/1995	9/30/2045	2,511	2,453	7.150%	7.150%					2,453		
136	2018	Bonneville Dam	Corps of Engineers	9/30/1995	9/30/2045	440	440	7.150%	7.150%					440		
137	2018	John Day	Corps of Engineers	9/30/1995	9/30/2045	608	608	7.150%	7.150%					608		
138	2018	John Day	Corps of Engineers	9/30/1995	9/30/2045	7,653	7,653	7.150%	7.150%					7,653		
139		**FY 2018 Subtotal:**	-	-	-	**180,628**	**135,821**							**135,747**		
140	2019	Bureau Direct	-	10/31/2009	10/31/2018	24,000	24,000	3.719%	3.719%					24,000		
141	2019	Construction (AS)	-	11/30/2012	11/30/2018	5,250	5,250	1.109%	1.109%					5,250		
142	2019	Fish and Wildlife	-	12/31/2009	12/31/2018	26,000	26,000	4.069%	4.069%					26,000		
143	2019	Bureau Direct	-	1/16/2014	12/31/2018	43,000	43,000	1.943%	1.943%					43,000		
144	2019	Bureau Direct	-	1/16/2014	12/31/2018	38,000	38,000	1.943%	1.943%					38,000		
145	2019	Fish and Wildlife	-	8/31/2010	8/31/2019	20,000	20,000	2.646%	2.646%					20,000		
146	2019	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	443	443	7.150%	7.150%					443		
147	2019	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	531	74	7.150%	7.150%					74		
148	2019	Lost Creek	Corps of Engineers	9/30/1996	9/30/2046	24	24	7.150%	7.150%					24		
149	2019	Lower Granite	Corps of Engineers	9/30/1996	9/30/2046	9	9	7.150%	7.150%					9		
150	2019	Lower Monument	Corps of Engineers	9/30/1996	9/30/2046	10	10	7.150%	7.150%					10		
151	2019	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1996	9/30/2046	12,085	12,085	7.150%	7.150%					12,085		
152	2019	The Dalles	Corps of Engineers	9/30/1996	9/30/2046	1,991	1,991	7.150%	7.150%					1,991		
153	2019	Lower Granite	Corps of Engineers	9/30/1996	9/30/2046	625	625	7.150%	7.150%					625		
154	2019	McNary	Corps of Engineers	9/30/1996	9/30/2046	619	619	7.150%	7.150%					619		
155	2019	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	3,909	3,909	7.150%	7.150%					2,060		
156		**FY 2019 Subtotal:**	-	-	-	**176,496**	**176,039**							**174,190**		
157	2020	Construction (AS)	-	10/31/2013	10/31/2019	4,200	4,200	2.039%	2.039%					4,200		
158	2020	Construction (AS)	-	10/31/2013	10/31/2019	5,000	5,000	2.039%	2.039%					5,000		
159	2020	Bureau Direct	-	10/31/2009	10/31/2019	20,000	20,000	3.842%	3.842%					20,000		
160	2020	Bureau Direct	-	11/30/2009	11/30/2019	7,000	7,000	3.637%	3.637%					7,000		
161	2020	Bureau Direct	-	12/31/2009	12/31/2019	13,000	13,000	4.194%	4.194%					13,000		
162	2020	Construction (AS)	-	1/31/2014	1/31/2020	1,750	1,750	2.183%	2.183%					1,750		
163	2020	Construction (AS)	-	1/31/2014	1/31/2020	2,000	2,000	2.183%	2.183%					2,000		
164	2020	Construction (AS)	-	4/30/2014	3/31/2020	1,400	1,400	0.519%	0.519%					1,400		
165	2020	Construction (AS)	-	4/30/2014	3/31/2020	2,000	2,000	0.519%	0.519%					2,000		
166	2020	Bureau Direct	-	3/31/2010	3/31/2020	30,000	30,000	4.083%	4.083%					30,000		
167	2020	Bureau Direct	-	4/30/2010	4/30/2020	18,000	18,000	3.973%	3.973%					18,000		
168	2020	Construction (AS)	-	5/31/2014	4/30/2020	700	700	0.483%	0.483%					700		
169	2020	Bureau Direct	-	5/31/2010	5/31/2020	15,000	15,000	3.574%	3.574%					15,000		
170	2020	Bureau Direct	-	7/31/2010	7/31/2020	17,000	17,000	3.118%	3.118%					17,000		
171	2020	Construction (AS)	-	7/31/2014	7/31/2020	1,050	1,050	0.505%	0.505%					1,050		
172	2020	Columbia River Fish Mitigation	Corps of Engineers	9/30/1996	9/30/2046	2,431	2,431	7.150%	7.150%					2,431		
173	2020	Dworshak	Corps of Engineers	9/30/1996	9/30/2046	3	3	7.150%	7.150%					3		
174	2020	Green Peter/Foster	Corps of Engineers	9/30/1996	9/30/2046	26	26	7.150%	7.150%					26		
175	2020	Hills Creek	Corps of Engineers	9/30/1996	9/30/2046	28	28	7.150%	7.150%					28		
176	2020	Hungry Horse Dam	Bureau of Reclamation	9/30/1996	9/30/2046	15	15	7.150%	7.150%					15		
177	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	10	10	7.150%	7.150%					10		
178	2020	Dworshak	Corps of Engineers	9/30/1996	9/30/2046	4	4	7.150%	7.150%					4		
179	2020	Hungry Horse Dam	Bureau of Reclamation	9/30/1996	9/30/2046	2	2	7.150%	7.150%					2		
180	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	10	10	7.150%	7.150%					10		

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181	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	211	211	7.150%	7.150%					211		
182	2020	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2046	426	426	7.150%	7.150%					426		
183	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	241	241	7.150%	7.150%					241		
184	2020	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	729	729	7.150%	7.150%					594		
185	2020	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2046	368	368	7.150%	7.150%					368		
186	2020	Dworshak	Corps of Engineers	9/30/1996	9/30/2046	46	46	7.150%	7.150%					46		
187	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	520	520	7.150%	7.150%					520		
188	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	3,909	1,849	7.150%	7.150%					1,849		
189		**FY 2020 Subtotal:**	-	-	-	**147,079**	**145,019**							**144,884**		
190	2021	Construction (AS)	-	11/30/2014	11/30/2020	2,100	2,100	1.809%	1.809%					2,100		
191	2021	Construction (AS)	-	12/31/2014	12/31/2020	1,050	1,050	1.922%	1.922%					1,050		
192	2021	Technology (G)	-	1/31/2015	1/31/2021	35,000	35,000	1.469%	1.469%					35,000		
193	2021	Bureau Direct	-	1/31/2009	1/31/2021	25,000	25,000	3.999%	3.999%					25,000		
194	2021	Construction (AS)	-	2/28/2015	2/28/2021	1,750	1,750	1.761%	1.761%					1,750		
195	2021	Construction (AS)	-	5/31/2015	5/31/2021	2,100	2,100	1.898%	1.898%					2,100		
196	2021	Conservation	-	5/31/2015	5/31/2021	5,000	5,000	1.898%	1.898%					5,000		
197	2021	Conservation	-	7/31/2015	7/31/2021	14,000	14,000	2.067%	2.067%					14,000		
198	2021	Bureau Direct	-	11/20/2013	9/30/2021	50,000	50,000	2.812%	2.812%					50,000		
199	2021	Bureau Direct	-	9/30/2010	9/30/2021	22,000	22,000	2.883%	2.883%					22,000		
200	2021	Boise	Bureau of Reclamation	9/30/1996	9/30/2046	442	442	7.150%	7.150%					442		
201	2021	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1996	9/30/2046	376	376	7.150%	7.150%					376		
202	2021	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	18	18	7.150%	7.150%					18		
203	2021	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	3	3	7.150%	7.150%					3		
204	2021	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	18	18	7.150%	7.150%					18		
205	2021	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	4	4	7.150%	7.150%					4		
206	2021	Boise	Bureau of Reclamation	9/30/1996	9/30/2046	656	656	7.150%	7.150%					656		
207	2021	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	80	80	7.150%	7.150%					80		
208	2021	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	355	355	7.150%	7.150%					355		
209	2021	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	109	109	7.150%	7.150%					109		
210	2021	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	729	135	7.150%	7.150%					135		
211	2021	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	142	142	7.150%	7.150%					142		
212	2021	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	223	223	7.150%	7.150%					223		
213	2021	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	751	751	7.150%	7.150%					751		
214	2021	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	1,322	1,322	7.150%	7.150%					1,322		
215	2021	Minidoka/Palisades	Bureau of Reclamation	9/30/1997	9/30/2047	50,911	50,911	7.150%	7.150%					4,524		
216		**FY 2021 Subtotal:**	-	-	-	**214,139**	**213,545**							**167,158**		
217	2022	Construction (AS)	-	10/31/2015	10/31/2021	2,800	2,800	1.942%	1.942%					2,800		
218	2022	Conservation	-	12/31/2013	12/31/2021	6,000	6,000	3.142%	3.142%					6,000		
219	2022	Construction (AS)	-	2/29/2016	2/28/2022	3,000	3,000	0.515%	0.515%					3,000		
220	2022	Technology (G)	-	10/31/2015	7/31/2022	6,000	6,000	0.505%	0.505%					6,000		
221	2022	Conservation	-	8/31/2015	8/31/2022	6,000	6,000	2.233%	2.233%					6,000		
222	2022	Bureau Direct	-	11/20/2013	9/30/2022	19,000	19,000	3.125%	3.125%					19,000		
223	2022	Fish and Wildlife	-	11/20/2013	9/30/2022	31,000	31,000	3.125%	3.125%					31,000		
224	2022	Conservation	-	9/30/2015	9/30/2022	4,000	4,000	2.062%	2.062%					4,000		
225	2022	Technology (G)	-	9/30/2017	9/30/2022	5,000	5,000	3.000%	3.000%					5,000		
226	2022	Albeni Falls	Corps of Engineers	9/30/1997	9/30/2047	431	431	7.150%	7.150%					431		
227	2022	Columbia Basin	Bureau of Reclamation	9/30/1997	9/30/2047	3,393	3,393	7.150%	7.150%					3,393		
228	2022	Cougar	Corps of Engineers	9/30/1997	9/30/2047	26	26	7.150%	7.150%					26		
229	2022	Dworshak	Corps of Engineers	9/30/1997	9/30/2047	7,588	7,588	7.150%	7.150%					7,588		
230	2022	Little Goose	Corps of Engineers	9/30/1997	9/30/2047	1	1	7.150%	7.150%					1		
231	2022	Lower Granite	Corps of Engineers	9/30/1997	9/30/2047	677	677	7.150%	7.150%					677		
232	2022	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1997	9/30/2047	2,173	2,173	7.150%	7.150%					2,173		
233	2022	Boise	Bureau of Reclamation	9/30/1997	9/30/2047	2,266	2,266	7.150%	7.150%					2,266		
234	2022	Chief Joseph	Corps of Engineers	9/30/1997	9/30/2047	657	657	7.150%	7.150%					657		
235	2022	Hungry Horse Dam	Bureau of Reclamation	9/30/1997	9/30/2047	111	111	7.150%	7.150%					111		
236	2022	Ice Harbor	Corps of Engineers	9/30/1997	9/30/2047	67	67	7.150%	7.150%					67		
237	2022	John Day	Corps of Engineers	9/30/1997	9/30/2047	179	179	7.150%	7.150%					179		
238	2022	Libby	Corps of Engineers	9/30/1997	9/30/2047	660	660	7.150%	7.150%					660		
239	2022	Minidoka/Palisades	Bureau of Reclamation	9/30/1997	9/30/2047	50,911	46,387	7.150%	7.150%					46,387		
240	2022	Bonneville Dam	Corps of Engineers	9/30/1997	9/30/2047	161	161	7.150%	7.150%					161		

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
241	2022	Lookout Dam	Corps of Engineers	9/30/2000	9/30/2050	5,098	5,098	6.125%	6.125%					1,694		
242	2022	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2000	9/30/2050	1,529	1,529	6.125%	6.125%					1,529		
243	2022	The Dalles	Corps of Engineers	9/30/2000	9/30/2050	2,588	2,588	6.125%	6.125%					2,588		
244		**FY 2022 Subtotal:**	-	-	-	**161,317**	**156,793**							**153,389**		
245	2023	Conservation	-	1/31/2011	1/31/2023	40,000	40,000	4.046%	4.046%					40,000		
246	2023	Conservation	-	4/30/2011	4/30/2023	35,000	35,000	3.932%	3.932%					35,000		
247	2023	Conservation	-	8/12/2011	8/31/2023	40,000	40,000	3.206%	3.206%					40,000		
248	2023	Conservation	-	11/20/2013	9/30/2023	27,000	27,000	3.375%	3.375%					27,000		
249	2023	Construction (AS)	-	9/30/2017	9/30/2023	5,250	5,250	3.120%	3.120%					5,250		
250	2023	Technology (G)	-	9/30/2018	9/30/2023	5,000	5,000	3.630%	3.630%					5,000		
251	2023	John Day	Corps of Engineers	9/30/2000	9/30/2050	2,761	2,761	6.125%	6.125%					1,905		
252	2023	Lookout Dam	Corps of Engineers	9/30/2000	9/30/2050	5,098	3,405	6.125%	6.125%					3,405		
253		**FY 2023 Subtotal:**	-	-	-	**160,110**	**158,416**							**157,559**		
254	2024	Conservation	-	12/31/2013	12/31/2023	55,000	55,000	0.490%	0.490%					55,000		
255	2024	Conservation	-	12/31/2014	12/31/2023	7,000	7,000	2.403%	2.403%					7,000		
256	2024	Conservation	-	1/31/2015	1/31/2024	7,000	7,000	1.908%	1.908%					7,000		
257	2024	Fish and Wildlife	-	1/31/2015	1/31/2024	5,000	5,000	1.908%	1.908%					5,000		
258	2024	Conservation	-	2/28/2015	2/29/2024	8,000	8,000	2.251%	2.251%					8,000		
259	2024	Technology (G)	-	9/30/2019	3/31/2024	5,000	5,000	3.830%	3.830%					5,000		
260	2024	Conservation	-	4/30/2015	4/30/2024	5,000	5,000	2.269%	2.269%					5,000		
261	2024	Conservation	-	5/31/2014	4/30/2024	15,000	15,000	0.483%	0.483%					15,000		
262	2024	Fish and Wildlife	-	6/30/2009	6/30/2024	20,000	20,000	4.556%	4.556%					20,000		
263	2024	Construction (AS)	-	9/30/2018	9/30/2024	5,950	5,950	3.700%	3.700%					5,950		
264	2024	Columbia River Fish Mitigation	Corps of Engineers	9/30/2000	9/30/2050	47,006	47,006	6.125%	6.125%					6,695		
265	2024	Hills Creek	Corps of Engineers	9/30/2000	9/30/2050	2,630	2,630	6.125%	6.125%					2,630		
266	2024	Ice Harbor	Corps of Engineers	9/30/2000	9/30/2050	548	548	6.125%	6.125%					548		
267	2024	John Day	Corps of Engineers	9/30/2000	9/30/2050	2,761	856	6.125%	6.125%					856		
268		**FY 2024 Subtotal:**	-	-	-	**185,895**	**183,990**							**143,680**		
269	2025	Conservation	-	6/30/2014	10/31/2024	5,000	5,000	0.483%	0.483%					5,000		
270	2025	Conservation	-	10/31/2014	12/31/2024	10,000	10,000	0.490%	0.490%					10,000		
271	2025	Conservation	-	3/31/2015	3/31/2025	5,000	5,000	2.295%	2.295%					5,000		
272	2025	Conservation	-	5/31/2014	4/30/2025	3,000	3,000	0.483%	0.483%					3,000		
273	2025	Conservation	-	4/30/2014	6/30/2025	30,000	30,000	0.490%	0.490%					30,000		
274	2025	Conservation	-	7/31/2014	7/31/2025	12,000	12,000	0.505%	0.505%					12,000		
275	2025	Conservation	-	8/31/2014	9/30/2025	4,000	4,000	0.519%	0.519%					4,000		
276	2025	Construction (AS)	-	9/30/2019	9/30/2025	5,950	5,950	3.890%	3.890%					5,950		
277	2025	Bonneville Dam	Corps of Engineers	9/30/2000	9/30/2050	24,446	24,446	6.125%	6.125%					10,584		
278	2025	Columbia River Fish Mitigation	Corps of Engineers	9/30/2000	9/30/2050	47,006	40,310	6.125%	6.125%					40,310		
279		**FY 2025 Subtotal:**	-	-	-	**146,402**	**139,706**							**125,845**		
280	2026	Conservation	-	10/31/2013	10/31/2025	34,000	34,000	3.568%	3.568%					34,000		
281	2026	Conservation	-	1/31/2014	1/31/2026	5,000	5,000	3.621%	3.621%					5,000		
282	2026	Fish and Wildlife	-	1/31/2011	1/31/2026	50,000	50,000	4.440%	4.440%					50,000		
283	2026	Fish and Wildlife	-	2/28/2011	2/28/2026	15,000	15,000	4.398%	4.398%					15,000		
284	2026	Fish and Wildlife	-	6/22/2011	6/30/2026	15,000	15,000	4.205%	4.205%					15,000		
285	2026	Bonneville Dam	Corps of Engineers	9/30/2000	9/30/2050	24,446	13,862	6.125%	6.125%					0		
286		**FY 2026 Subtotal:**	-	-	-	**143,446**	**132,862**							**119,000**		
287	2027	Fish and Wildlife	-	10/31/2013	12/31/2026	28,000	28,000	3.717%	3.717%					28,000		
288	2027	Conservation	-	11/30/2014	3/31/2027	6,000	6,000	0.519%	0.519%					6,000		
289	2027	Fish and Wildlife	-	5/31/2014	4/30/2027	11,000	11,000	0.483%	0.483%					11,000		
290	2027	Fish and Wildlife	-	11/30/2013	5/31/2027	5,000	5,000	0.577%	0.577%					5,000		
291	2027	Fish and Wildlife	-	10/31/2013	5/31/2027	11,000	11,000	3.762%	3.762%					11,000		
292	2027	Bonneville Dam	Corps of Engineers	9/30/2000	9/30/2050	24,446	13,862	6.125%	6.125%					13,862		
293	2027	Columbia Basin	Bureau of Reclamation	9/30/2001	9/30/2051	69,226	69,226	5.875%	5.875%					18,462		
294	2027	Columbia River Fish Mitigation	Corps of Engineers	9/30/2001	9/30/2051	6,168	6,168	5.875%	5.875%					6,168		
295	2027	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2001	9/30/2051	282	282	5.875%	5.875%					282		
296	2027	Green Peter/Foster	Corps of Engineers	9/30/2001	9/30/2051	200	200	5.875%	5.875%					200		
297	2027	Hills Creek	Corps of Engineers	9/30/2001	9/30/2051	8	8	5.875%	5.875%					8		
298	2027	Hungry Horse Dam	Bureau of Reclamation	9/30/2001	9/30/2051	552	552	5.875%	5.875%					552		
299	2027	Ice Harbor	Corps of Engineers	9/30/2001	9/30/2051	764	764	5.875%	5.875%					764		
300	2027	John Day	Corps of Engineers	9/30/2001	9/30/2051	619	619	5.875%	5.875%					619		
301	2027	Libby	Corps of Engineers	9/30/2001	9/30/2051	5,562	5,562	5.875%	5.875%					5,562		
302	2027	Little Goose	Corps of Engineers	9/30/2001	9/30/2051	4,608	4,608	5.875%	5.875%					4,608		

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
303	2027	Lost Creek	Corps of Engineers	9/30/2001	9/30/2051	147	147	5.875%	5.875%					147		
304	2027	Lower Granite	Corps of Engineers	9/30/2001	9/30/2051	2,025	2,025	5.875%	5.875%					2,025		
305	2027	Lower Monument	Corps of Engineers	9/30/2001	9/30/2051	3,301	3,301	5.875%	5.875%					3,301		
306	2027	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2001	9/30/2051	325	325	5.875%	5.875%					325		
307	2027	McNary	Corps of Engineers	9/30/2001	9/30/2051	1,046	1,046	5.875%	5.875%					1,046		
308	2027	Minidoka/Palisades	Bureau of Reclamation	9/30/2001	9/30/2051	42	42	5.875%	5.875%					42		
309	2027	RRP - Green Springs	Bureau of Reclamation	9/30/2001	9/30/2051	11,145	11,145	5.875%	5.875%					11,145		
310	2027	Yakima Roza	Bureau of Reclamation	9/30/2001	9/30/2051	15	14	5.875%	5.875%					14		
311		**FY 2027 Subtotal:**	**-**	**-**	**-**	**191,481**	**180,896**							**130,133**		
312	2028	Fish and Wildlife	-	11/20/2013	9/30/2023	23,000	23,000	3.375%	3.831%	Global	9/30/2023	9/30/2028	3.831%	23,000		
313	2028	Conservation	-	10/31/2015	10/31/2027	25,000	25,000	0.483%	0.483%					25,000		
314	2028	Fish and Wildlife	-	3/31/2015	3/31/2028	3,000	3,000	2.511%	2.511%					3,000		
315	2028	Bonneville Dam	Corps of Engineers	9/30/2001	9/30/2051	2,530	2,530	5.875%	5.875%					2,530		
316	2028	Chief Joseph	Corps of Engineers	9/30/2001	9/30/2051	345	345	5.875%	5.875%					345		
317	2028	Columbia Basin	Bureau of Reclamation	9/30/2001	9/30/2051	69,226	50,763	5.875%	5.875%					50,763		
318	2028	The Dalles	Corps of Engineers	9/30/2002	9/30/2052	1,226	1,226	5.500%	5.500%					1,225		
319		**FY 2028 Subtotal:**	**-**	**-**	**-**	**124,327**	**105,864**							**105,863**		
320	2029	Fish and Wildlife	-	10/31/2013	10/31/2028	22,000	22,000	3.880%	3.880%					22,000		
321	2029	Fish and Wildlife	-	1/31/2014	1/31/2029	7,000	7,000	3.896%	3.896%					7,000		
322	2029	Fish and Wildlife	-	10/31/2014	1/31/2029	15,000	15,000	0.505%	0.505%					15,000		
323	2029	Fish and Wildlife	-	4/30/2014	2/28/2029	7,000	7,000	0.515%	0.515%					7,000		
324	2029	Fish and Wildlife	-	8/31/2014	7/31/2029	5,000	5,000	0.505%	0.505%					5,000		
325	2029	Bureau Direct	-	6/30/2009	6/30/2039	25,000	25,000	5.192%	5.192%					25,000	2,315	
326	2029	Bonneville Dam	Corps of Engineers	9/30/1999	9/30/2049	19,368	19,368	5.375%	5.375%					19,368		
327	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/1999	9/30/2049	14,115	14,115	5.375%	5.375%					14,115		
328	2029	Dworshak	Corps of Engineers	9/30/1999	9/30/2049	630	630	5.375%	5.375%					630		
329	2029	Ice Harbor	Corps of Engineers	9/30/1999	9/30/2049	5,516	5,516	5.375%	5.375%					5,516		
330	2029	John Day	Corps of Engineers	9/30/1999	9/30/2049	3,510	3,510	5.375%	5.375%					3,510		
331	2029	Lower Granite	Corps of Engineers	9/30/1999	9/30/2049	856	856	5.375%	5.375%					856		
332	2029	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1999	9/30/2049	7	7	5.375%	5.375%					7		
333	2029	Bonneville Dam	Corps of Engineers	9/30/2002	9/30/2052	448	448	5.500%	5.500%					448		
334	2029	Chief Joseph	Corps of Engineers	9/30/2002	9/30/2052	2	2	5.500%	5.500%					2		
335	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2002	9/30/2052	8,797	8,797	5.500%	5.500%					8,797		
336	2029	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2002	9/30/2052	18	18	5.500%	5.500%					18		
337	2029	Dworshak	Corps of Engineers	9/30/2002	9/30/2052	199	199	5.500%	5.500%					199		
338	2029	Hills Creek	Corps of Engineers	9/30/2002	9/30/2052	2	2	5.500%	5.500%					2		
339	2029	Ice Harbor	Corps of Engineers	9/30/2002	9/30/2052	1,014	1,014	5.500%	5.500%					1,014		
340	2029	Little Goose	Corps of Engineers	9/30/2002	9/30/2052	27	27	5.500%	5.500%					27		
341	2029	Lower Granite	Corps of Engineers	9/30/2002	9/30/2052	1,275	1,275	5.500%	5.500%					1,275		
342	2029	Lower Monument	Corps of Engineers	9/30/2002	9/30/2052	29	29	5.500%	5.500%					29		
343	2029	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2002	9/30/2052	890	890	5.500%	5.500%					890		
344	2029	The Dalles	Corps of Engineers	9/30/2002	9/30/2052	1,226	1	5.500%	5.500%					1		
345	2029	Bonneville Dam	Corps of Engineers	9/30/2003	9/30/2053	4,581	4,581	5.125%	5.125%					4,581		
346	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2003	9/30/2053	68,440	68,440	5.125%	5.125%					68,440		
347	2029	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2003	9/30/2053	223	223	5.125%	5.125%					223		
348	2029	Dworshak	Corps of Engineers	9/30/2003	9/30/2053	761	761	5.125%	5.125%					761		
349	2029	Ice Harbor	Corps of Engineers	9/30/2003	9/30/2053	50	50	5.125%	5.125%					50		
350	2029	Little Goose	Corps of Engineers	9/30/2003	9/30/2053	146	146	5.125%	5.125%					146		
351	2029	Lookout Dam	Corps of Engineers	9/30/2003	9/30/2053	135	135	5.125%	5.125%					135		
352	2029	Lower Granite	Corps of Engineers	9/30/2003	9/30/2053	42	42	5.125%	5.125%					42		
353	2029	Lower Monument	Corps of Engineers	9/30/2003	9/30/2053	22	22	5.125%	5.125%					22		
354	2029	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2003	9/30/2053	98	98	5.125%	5.125%					98		
355	2029	McNary	Corps of Engineers	9/30/2003	9/30/2053	97	97	5.125%	5.125%					97		
356	2029	Chief Joseph	Corps of Engineers	9/30/2003	9/30/2053	992	992	5.125%	5.125%					992		
357	2029	Bonneville Dam	Corps of Engineers	9/30/2004	9/30/2054	26,741	26,741	5.375%	5.375%					26,741		
358	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2004	9/30/2054	60,581	60,581	5.375%	5.375%					60,581		
359	2029	Cougar	Corps of Engineers	9/30/2004	9/30/2054	3,622	3,622	5.375%	5.375%					3,622		
360	2029	Ice Harbor	Corps of Engineers	9/30/2004	9/30/2054	3,321	3,321	5.375%	5.375%					3,321		

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
361	2029	John Day	Corps of Engineers	9/30/2004	9/30/2054	2,830	2,830	5.375%	5.375%					2,830		
362	2029	Little Goose	Corps of Engineers	9/30/2004	9/30/2054	68	67	5.375%	5.375%					67		
363	2029	Lower Monument	Corps of Engineers	9/30/2004	9/30/2054	3,423	3,423	5.375%	5.375%					3,423		
364	2029	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2004	9/30/2054	230	230	5.375%	5.375%					230		
365	2029	McNary	Corps of Engineers	9/30/2004	9/30/2054	6,138	6,138	5.375%	5.375%					6,138		
366	2029	The Dalles	Corps of Engineers	9/30/2004	9/30/2054	182	182	5.375%	5.375%					182		
367	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2005	9/30/2055	52,039	52,039	5.125%	5.125%					12,147		
368	2029	Hills Creek	Corps of Engineers	9/30/2005	9/30/2055	46	46	5.125%	5.125%					46		
369	2029	Hungry Horse Dam	Bureau of Reclamation	9/30/2005	9/30/2055	2,951	2,951	5.125%	5.125%					2,951		
370	2029	John Day	Corps of Engineers	9/30/2005	9/30/2055	2,828	2,827	5.125%	5.125%					2,827		
371	2029	Lookout Dam	Corps of Engineers	9/30/2005	9/30/2055	7,355	7,355	5.125%	5.125%					7,355		
372	2029	Lower Granite	Corps of Engineers	9/30/2005	9/30/2055	393	393	5.125%	5.125%					393		
373	2029	Lower Monument	Corps of Engineers	9/30/2005	9/30/2055	527	527	5.125%	5.125%					527		
374	2029	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2005	9/30/2055	4	4	5.125%	5.125%					4		
375	2029	McNary	Corps of Engineers	9/30/2005	9/30/2055	550	550	5.125%	5.125%					550		
376	2029	The Dalles	Corps of Engineers	9/30/2005	9/30/2055	36,019	36,019	5.125%	5.125%					36,019		
377	2029	Yakima Chandler/Kenniwick	Bureau of Reclamation	9/30/2005	9/30/2055	833	833	5.125%	5.125%					833		
378		**FY 2029 Subtotal:**	-	-	-	**425,191**	**423,966**							**384,074**	**2,315**	
379	2030	Bureau Direct	-	1/16/2014	12/31/2018	26,000	26,000	1.943%	4.136%	Global	12/31/2018	12/31/2029	4.136%	26,000		
380	2030	Bureau Direct	-	1/16/2014	12/31/2018	21,000	21,000	1.943%	4.136%	Global	12/31/2018	12/31/2029	4.136%	21,000		
381	2030	Bureau Direct	-	1/16/2014	12/31/2018	14,000	14,000	1.943%	4.136%	Global	12/31/2018	12/31/2029	4.136%	14,000		
382	2030	Bureau Direct	-	1/31/2010	1/31/2019	10,000	10,000	3.714%	4.136%	Global	1/31/2019	1/31/2030	4.136%	10,000		
383	2030	Bureau Direct	-	9/30/2009	9/30/2019	25,000	25,000	3.699%	4.136%	Global	9/30/2019	9/30/2030	4.136%	25,000		
384	2030	Fish and Wildlife	-	11/30/2014	3/31/2030	8,000	8,000	0.519%	0.519%					8,000		
385	2030	Corps	-	5/31/2016	5/31/2030	15,000	15,000	2.599%	2.599%					15,000		
386	2030	Bureau Direct	-	7/31/2016	7/31/2030	12,000	12,000	2.145%	2.145%					12,000		
387	2030	Bureau Direct	-	7/31/2016	7/31/2030	25,000	25,000	2.145%	2.145%					25,000		
388	2030	Bureau Direct	-	1/31/2011	1/31/2039	35,000	35,000	5.040%	5.040%					35,000	2,607	
389	2030	Albeni Falls	Corps of Engineers	9/30/2005	9/30/2055	481	481	5.125%	5.125%					481		
390	2030	Boise	Bureau of Reclamation	9/30/2005	9/30/2055	903	903	5.125%	5.125%					903		
391	2030	Bonneville Dam	Corps of Engineers	9/30/2005	9/30/2055	19,725	19,725	5.125%	5.125%					19,725		
392	2030	Columbia Basin	Bureau of Reclamation	9/30/2005	9/30/2055	10,963	10,963	5.125%	5.125%					10,963		
393	2030	Columbia River Fish Mitigation	Corps of Engineers	9/30/2005	9/30/2055	52,039	39,892	5.125%	5.125%					39,892		
394	2030	Cougar	Corps of Engineers	9/30/2005	9/30/2055	8,130	8,130	5.125%	5.125%					8,130		
395	2030	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2005	9/30/2055	1,031	1,031	5.125%	5.125%					1,031		
396	2030	Dworshak	Corps of Engineers	9/30/2005	9/30/2055	713	713	5.125%	5.125%					713		
397	2030	Columbia River Fish Mitigation	Corps of Engineers	9/30/2007	9/30/2057	53,525	53,525	5.000%	5.000%					32,061		
398	2030	Hungry Horse Dam	Bureau of Reclamation	9/30/2007	9/30/2057	294	294	5.000%	5.000%					294		
399	2030	John Day	Corps of Engineers	9/30/2007	9/30/2057	233	233	5.000%	5.000%					233		
400	2030	Lookout Dam	Corps of Engineers	9/30/2007	9/30/2057	572	572	5.000%	5.000%					572		
401	2030	The Dalles	Corps of Engineers	9/30/2007	9/30/2057	140	140	5.000%	5.000%					140		
402		**FY 2030 Subtotal:**	-	-	-	**339,749**	**327,601**							**306,137**	**2,607**	
403	2031	Bureau Direct	-	6/30/2010	6/30/2020	10,000	10,000	3.243%	4.136%	Global	6/30/2020	6/30/2031	4.136%	10,000		
404	2031	Bureau Direct	-	6/30/2010	6/30/2020	30,000	30,000	3.243%	4.136%	Global	6/30/2020	6/30/2031	4.136%	30,000		
405	2031	Bureau Direct	-	11/20/2013	9/30/2020	51,000	51,000	2.473%	4.136%	Global	9/30/2020	9/30/2031	4.136%	51,000		
406	2031	Fish and Wildlife	-	2/29/2016	2/28/2031	4,000	4,000	0.515%	0.515%					4,000		
407	2031	Fish and Wildlife	-	10/31/2015	2/28/2031	4,000	4,000	0.515%	0.515%					4,000		
408	2031	Fish and Wildlife	-	10/31/2015	3/31/2031	5,000	5,000	0.519%	0.519%					5,000		
409	2031	Corps	-	4/30/2016	4/30/2031	53,000	53,000	2.661%	2.661%					53,000		
410	2031	Bureau Direct	-	4/30/2016	4/30/2031	17,000	17,000	2.661%	2.661%					17,000		
411	2031	Bureau Direct	-	6/22/2011	6/30/2038	30,000	30,000	4.700%	4.700%					30,000	1,472	
412	2031	Bureau Direct	-	2/28/2011	2/28/2040	50,000	50,000	4.995%	4.995%					50,000	3,503	
413	2031	Bureau Direct	-	9/30/2019	9/30/2048	47,000	47,000	4.650%	4.650%					36,561		
414	2031	Corps	-	9/30/2019	9/30/2049	41,000	41,000	4.670%	4.670%					41,000		
415	2031	Boise	Bureau of Reclamation	9/30/2007	9/30/2057	76	76	5.000%	5.000%					76		
416	2031	Bonneville Dam	Corps of Engineers	9/30/2007	9/30/2057	1,124	1,124	5.000%	5.000%					1,124		
417	2031	Columbia Basin	Bureau of Reclamation	9/30/2007	9/30/2057	929	929	5.000%	5.000%					929		
418	2031	Columbia River Fish Mitigation	Corps of Engineers	9/30/2007	9/30/2057	53,525	21,464	5.000%	5.000%					21,464		
419	2031	Cougar	Corps of Engineers	9/30/2007	9/30/2057	120	120	5.000%	5.000%					120		
420		**FY 2031 Subtotal:**	-	-	-	**397,773**	**365,712**							**355,273**	**4,975**	

TABLE 12D
Application of Amortization
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
421	2032	Bureau Direct	-	4/30/2009	4/30/2023	25,000	25,000	4.391%	4.052%	Global	4/30/2023	4/30/2032	4.052%	25,000		
422	2032	Bureau Direct	-	9/30/2014	5/31/2032	16,000	16,000	0.577%	0.577%					16,000		
423	2032	Bureau Direct	-	9/30/2014	5/31/2032	10,000	10,000	0.577%	0.577%					10,000		
424	2032	Bureau Direct	-	7/31/2017	7/31/2032	16,000	16,000	3.810%	3.810%					16,000		
425	2032	Fish and Wildlife	-	9/30/2017	9/30/2032	45,000	45,000	3.810%	3.810%					45,000		
426	2032	Bureau Direct	-	6/22/2011	6/30/2036	30,000	30,000	4.629%	4.629%					30,000	1,100	
427	2032	Bureau Direct	-	7/31/2019	7/31/2044	47,000	47,000	4.530%	4.530%					47,000		
428	2032	Corps	-	7/31/2019	7/31/2045	41,000	41,000	4.560%	4.560%					41,000		
429	2032	Bureau Direct	-	8/31/2019	8/31/2046	47,000	47,000	4.590%	4.590%					47,000		
430	2032	Corps	-	8/31/2019	8/31/2047	41,000	41,000	4.620%	4.620%					41,000		
431	2032	Bureau Direct	-	9/30/2019	9/30/2048	47,000	10,439	4.650%	4.650%					10,439		
432	2032	Columbia River Fish Mitigation	Corps of Engineers	9/30/2006	9/30/2056	366,395	366,395	4.500%	4.500%					152,764		
433	2032	John Day	Corps of Engineers	9/30/2006	9/30/2056	601	601	4.500%	4.500%					601		
434	2032	Lower Monument	Corps of Engineers	9/30/2006	9/30/2056	285	285	4.500%	4.500%					285		
435	2032	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2006	9/30/2056	379	379	4.500%	4.500%					379		
436	2032	The Dalles	Corps of Engineers	9/30/2006	9/30/2056	2,030	2,030	4.500%	4.500%					2,030		
437	2032	McNary	Corps of Engineers	9/30/2006	9/30/2056	4,080	4,080	4.500%	4.500%					4,080		
438		**FY 2032 Subtotal:**	**-**	**-**	**-**	**738,769**	**702,208**							**488,577**	**1,100**	
439	2033	Bureau Direct	-	9/30/2014	6/30/2033	11,000	11,000	0.490%	0.490%					11,000		
440	2033	Bureau Direct	-	9/30/2014	6/30/2033	12,000	12,000	0.490%	0.490%					12,000		
441	2033	Bureau Direct	-	9/30/2014	7/31/2033	15,000	15,000	0.505%	0.505%					15,000		
442	2033	Corps	-	7/31/2017	7/31/2033	55,000	55,000	3.850%	3.850%					55,000		
443	2033	Bureau Direct	-	9/30/2015	9/30/2033	10,000	10,000	3.134%	3.134%					10,000		
444	2033	Corps	-	9/30/2015	9/30/2033	4,000	4,000	3.134%	3.134%					4,000		
445	2033	Fish and Wildlife	-	9/30/2018	9/30/2033	51,000	51,000	4.160%	4.160%					51,000		
446	2033	Bureau Direct	-	8/31/2018	8/31/2040	28,000	28,000	4.380%	4.380%					14,908		
447	2033	Corps	-	8/31/2018	8/31/2041	53,000	53,000	4.410%	4.410%					53,000		
448	2033	Bureau Direct	-	9/30/2018	9/30/2042	28,000	28,000	4.440%	4.440%					28,000		
449	2033	Corps	-	9/30/2018	9/30/2043	52,000	52,000	4.470%	4.470%					52,000		
450	2033	Boise	Bureau of Reclamation	9/30/2006	9/30/2056	15	15	4.500%	4.500%					15		
451	2033	Bonneville Dam	Corps of Engineers	9/30/2006	9/30/2056	2,628	2,628	4.500%	4.500%					2,628		
452	2033	Columbia Basin	Bureau of Reclamation	9/30/2006	9/30/2056	1,987	1,987	4.500%	4.500%					1,987		
453	2033	Columbia River Fish Mitigation	Corps of Engineers	9/30/2006	9/30/2056	366,395	213,631	4.500%	4.500%					213,631		
454	2033	Cougar	Corps of Engineers	9/30/2006	9/30/2056	109	109	4.500%	4.500%					109		
455	2033	Dworshak	Corps of Engineers	9/30/2006	9/30/2056	73	73	4.500%	4.500%					73		
456		**FY 2033 Subtotal:**	**-**	**-**	**-**	**690,206**	**537,443**							**524,351**		
457	2034	Bureau Direct	-	2/27/2012	2/28/2034	55,000	55,000	0.515%	0.515%					55,000		
458	2034	Bureau Direct	-	8/31/2017	8/31/2034	16,000	16,000	3.890%	3.890%					16,000		
459	2034	Fish and Wildlife	-	9/30/2019	9/30/2034	44,000	44,000	4.250%	4.250%					44,000		
460	2034	Bureau Direct	-	8/12/2011	8/31/2037	30,000	30,000	4.208%	4.208%					30,000	540	
461	2034	Corps	-	9/30/2017	9/30/2037	55,000	55,000	4.010%	4.010%					55,000		
462	2034	Bureau Direct	-	7/31/2018	7/31/2038	28,000	28,000	4.320%	4.320%					28,000		
463	2034	Corps	-	7/31/2018	7/31/2039	53,000	53,000	4.350%	4.350%					53,000		
464	2034	Bureau Direct	-	8/31/2018	8/31/2040	28,000	13,092	4.380%	4.380%					13,092		
465	2034	Boise	Bureau of Reclamation	9/30/2009	9/30/2059	2	2	4.375%	4.375%					2		
466	2034	Bonneville Dam	Corps of Engineers	9/30/2009	9/30/2059	2,744	2,744	4.375%	4.375%					2,744		
467	2034	Chief Joseph	Corps of Engineers	9/30/2009	9/30/2059	24,727	24,727	4.375%	4.375%					24,727		
468	2034	Columbia River Fish Mitigation	Corps of Engineers	9/30/2009	9/30/2059	103,203	103,203	4.375%	4.375%					103,203		
469	2034	Cougar	Corps of Engineers	9/30/2009	9/30/2059	121	121	4.375%	4.375%					121		
470	2034	Dworshak	Corps of Engineers	9/30/2009	9/30/2059	2,425	2,425	4.375%	4.375%					2,425		
471	2034	Ice Harbor	Corps of Engineers	9/30/2009	9/30/2059	2,615	2,615	4.375%	4.375%					2,615		
472	2034	Little Goose	Corps of Engineers	9/30/2009	9/30/2059	3,171	3,171	4.375%	4.375%					3,171		
473	2034	Lower Granite	Corps of Engineers	9/30/2009	9/30/2059	5,669	5,669	4.375%	4.375%					5,669		
474	2034	Lower Monument	Corps of Engineers	9/30/2009	9/30/2059	2,332	2,332	4.375%	4.375%					2,332		
475	2034	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2009	9/30/2059	1,540	1,540	4.375%	4.375%					1,540		
476	2034	Little Goose	Corps of Engineers	9/30/2010	9/30/2060	30	30	4.250%	4.250%					30		
477	2034	Lower Granite	Corps of Engineers	9/30/2010	9/30/2060	1,156	1,156	4.250%	4.250%					1,156		
478	2034	Albeni Falls	Corps of Engineers	9/30/2010	9/30/2060	42	42	4.250%	4.250%					42		
479	2034	Bonneville Dam	Corps of Engineers	9/30/2010	9/30/2060	1,425	1,425	4.250%	4.250%					1,425		
480	2034	Columbia Basin	Bureau of Reclamation	9/30/2010	9/30/2060	877	877	4.250%	4.250%					877		

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
481	2034	Columbia River Fish Mitigation	Corps of Engineers	9/30/2010	9/30/2060	56,832	56,832	4.250%	4.250%					56,832		
482	2034	Cougar	Corps of Engineers	9/30/2010	9/30/2060	59	59	4.250%	4.250%					59		
483	2034	Hungry Horse Dam	Bureau of Reclamation	9/30/2010	9/30/2060	779	779	4.250%	4.250%					779		
484	2034	Ice Harbor	Corps of Engineers	9/30/2010	9/30/2060	207	207	4.250%	4.250%					207		
485	2034	John Day	Corps of Engineers	9/30/2010	9/30/2060	356	356	4.250%	4.250%					356		
486	2034	Libby	Corps of Engineers	9/30/2010	9/30/2060	40	40	4.250%	4.250%					40		
487	2034	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2010	9/30/2060	6	6	4.250%	4.250%					6		
488	2034	Columbia River Fish Mitigation	Corps of Engineers	9/30/2019	9/30/2069	53,204	53,204	3.980%	3.980%					30,610		
489		**FY 2034 Subtotal:**	-	-	-	**572,562**	**557,654**							**535,060**	**540**	
490	2035	Bureau Direct	-	10/31/2010	10/31/2034	20,000	20,000	4.211%	4.211%					20,000		
491	2035	Corps	-	8/31/2017	8/31/2035	55,000	55,000	3.930%	3.930%					55,000		
492	2035	Bureau Direct	-	9/30/2017	9/30/2036	16,000	16,000	3.970%	3.970%					16,000		
493	2035	Hungry Horse Dam	Bureau of Reclamation	9/30/2011	9/30/2061	503	503	3.750%	3.750%					503		
494	2035	Bonneville Dam	Corps of Engineers	9/30/2011	9/30/2061	10,962	10,962	3.750%	3.750%					10,962		
495	2035	Chief Joseph	Corps of Engineers	9/30/2011	9/30/2061	4	4	3.750%	3.750%					4		
496	2035	Columbia Basin	Bureau of Reclamation	9/30/2011	9/30/2061	1,723	1,723	3.750%	3.750%					1,723		
497	2035	Columbia River Fish Mitigation	Corps of Engineers	9/30/2011	9/30/2061	106,014	106,014	3.750%	3.750%					106,014		
498	2035	Cougar	Corps of Engineers	9/30/2011	9/30/2061	282	282	3.750%	3.750%					282		
499	2035	Green Peter/Foster	Corps of Engineers	9/30/2011	9/30/2061	87	87	3.750%	3.750%					87		
500	2035	Hills Creek	Corps of Engineers	9/30/2011	9/30/2061	12	12	3.750%	3.750%					12		
501	2035	Ice Harbor	Corps of Engineers	9/30/2011	9/30/2061	819	819	3.750%	3.750%					819		
502	2035	John Day	Corps of Engineers	9/30/2011	9/30/2061	175	175	3.750%	3.750%					175		
503	2035	Libby	Corps of Engineers	9/30/2011	9/30/2061	152	152	3.750%	3.750%					152		
504	2035	Lookout Dam	Corps of Engineers	9/30/2011	9/30/2061	17	17	3.750%	3.750%					17		
505	2035	Lost Creek	Corps of Engineers	9/30/2011	9/30/2061	7	7	3.750%	3.750%					7		
506	2035	Lower Granite	Corps of Engineers	9/30/2011	9/30/2061	8	8	3.750%	3.750%					8		
507	2035	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2011	9/30/2061	122	122	3.750%	3.750%					122		
508	2035	McNary	Corps of Engineers	9/30/2011	9/30/2061	565	565	3.750%	3.750%					565		
509	2035	Columbia Basin	Bureau of Reclamation	9/30/2014	9/30/2064	19	19	3.875%	3.875%					19		
510	2035	Cougar	Corps of Engineers	9/30/2014	9/30/2064	12	12	3.875%	3.875%					12		
511	2035	Hungry Horse Dam	Bureau of Reclamation	9/30/2014	9/30/2064	12	12	3.875%	3.875%					12		
512	2035	Bonneville Dam	Corps of Engineers	9/30/2014	9/30/2064			3.875%	3.875%					0		
513	2035	Columbia River Fish Mitigation	Corps of Engineers	9/30/2014	9/30/2064	110,071	110,071	3.875%	3.875%					110,071		
514	2035	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2014	9/30/2064	18	18	3.875%	3.875%					18		
515	2035	Green Peter/Foster	Corps of Engineers	9/30/2014	9/30/2064	385	385	3.875%	3.875%					385		
516	2035	Lower Granite	Corps of Engineers	9/30/2014	9/30/2064	2,644	2,644	3.875%	3.875%					2,644		
517	2035	Lower Monument	Corps of Engineers	9/30/2014	9/30/2064	1,430	1,430	3.875%	3.875%					1,430		
518	2035	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2014	9/30/2064	222	222	3.875%	3.875%					222		
519	2035	McNary	Corps of Engineers	9/30/2014	9/30/2064	759	759	3.875%	3.875%					759		
520	2035	Columbia River Fish Mitigation	Corps of Engineers	9/30/2017	9/30/2067	151,772	151,772	3.680%	3.680%					102,944		
521	2035	Columbia River Fish Mitigation	Corps of Engineers	9/30/2018	9/30/2068	81,269	81,269	3.930%	3.930%					81,269		
522	2035	Columbia River Fish Mitigation	Corps of Engineers	9/30/2019	9/30/2069	53,204	22,594	3.980%	3.980%					22,594		
523		**FY 2035 Subtotal:**	-	-	-	**614,267**	**583,657**							**534,829**		
524	2036	Bureau Direct	-	6/30/2013	1/31/2039	35,000	35,000	0.505%	0.505%					32,151		2,849
525	2036	Corps	-	2/29/2016	2/28/2045	3,000	3,000	0.515%	0.515%					2,368		632
526	2036	Cougar	Corps of Engineers	9/30/2012	9/30/2062	139	139	3.375%	3.375%					139		
527	2036	Hungry Horse Dam	Bureau of Reclamation	9/30/2012	9/30/2062	3	3	3.375%	3.375%					3		
528	2036	Minidoka/Palisades	Bureau of Reclamation	9/30/2012	9/30/2062	7	7	3.375%	3.375%					7		
529	2036	Green Peter/Foster	Corps of Engineers	9/30/2012	9/30/2062	28	28	3.375%	3.375%					28		
530	2036	Chief Joseph	Corps of Engineers	9/30/2012	9/30/2062	28	28	3.375%	3.375%					28		
531	2036	Columbia Basin	Bureau of Reclamation	9/30/2012	9/30/2062	11	11	3.375%	3.375%					11		
532	2036	Columbia River Fish Mitigation	Corps of Engineers	9/30/2012	9/30/2062	101,616	101,616	3.375%	3.375%					101,616		
533	2036	Hills Creek	Corps of Engineers	9/30/2012	9/30/2062	142	142	3.375%	3.375%					142		
534	2036	Ice Harbor	Corps of Engineers	9/30/2012	9/30/2062	115	115	3.375%	3.375%					115		
535	2036	John Day	Corps of Engineers	9/30/2012	9/30/2062	6,161	6,161	3.375%	3.375%					6,161		
536	2036	Libby	Corps of Engineers	9/30/2012	9/30/2062	16	16	3.375%	3.375%					16		
537	2036	Lookout Dam	Corps of Engineers	9/30/2012	9/30/2062	294	294	3.375%	3.375%					294		
538	2036	Lower Monument	Corps of Engineers	9/30/2012	9/30/2062	89	89	3.375%	3.375%					89		
539	2036	McNary	Corps of Engineers	9/30/2012	9/30/2062	12	11	3.375%	3.375%					11		
540	2036	RRP - Green Springs	Bureau of Reclamation	9/30/2012	9/30/2062	2	2	3.375%	3.375%					2		

TABLE 12D
Application of Amortization
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
541	2036	Bonneville Dam	Corps of Engineers	9/30/2013	9/30/2063	268	268	2.875%	2.875%					268		
542	2036	Chief Joseph	Corps of Engineers	9/30/2013	9/30/2063	10	10	2.875%	2.875%					10		
543	2036	Columbia Basin	Bureau of Reclamation	9/30/2013	9/30/2063	3,083	3,083	2.875%	2.875%					3,083		
544	2036	Columbia River Fish Mitigation	Corps of Engineers	9/30/2013	9/30/2063	95,274	95,274	2.875%	2.875%					95,274		
545	2036	Cougar	Corps of Engineers	9/30/2013	9/30/2063	4,088	4,088	2.875%	2.875%					4,088		
546	2036	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2013	9/30/2063	528	528	2.875%	2.875%					528		
547	2036	John Day	Corps of Engineers	9/30/2013	9/30/2063	17	17	2.875%	2.875%					17		
548	2036	Little Goose	Corps of Engineers	9/30/2013	9/30/2063	66	66	2.875%	2.875%					66		
549	2036	McNary	Corps of Engineers	9/30/2013	9/30/2063	1,000	1,000	2.875%	2.875%					1,000		
550	2036	RRP - Green Springs	Bureau of Reclamation	9/30/2013	9/30/2063	1	1	2.875%	2.875%					1		
551	2036	Replacements	-	3/31/2020	3/31/2065	218,435	218,435	4.670%	4.670%					94,246		
552	2036	Boise	Bureau of Reclamation	9/30/2015	9/30/2065	5	5	3.250%	3.250%					5		
553	2036	Bonneville Dam	Corps of Engineers	9/30/2015	9/30/2065	102	102	3.250%	3.250%					102		
554	2036	Columbia Basin	Bureau of Reclamation	9/30/2015	9/30/2065			3.250%	3.250%					0		
555	2036	Columbia River Fish Mitigation	Corps of Engineers	9/30/2015	9/30/2065	64,288	64,288	3.250%	3.250%					64,288		
556	2036	Green Peter/Foster	Corps of Engineers	9/30/2015	9/30/2065	19	19	3.250%	3.250%					19		
557	2036	Hungry Horse Dam	Bureau of Reclamation	9/30/2015	9/30/2065	32	32	3.250%	3.250%					32		
558	2036	Ice Harbor	Corps of Engineers	9/30/2015	9/30/2065	3,175	3,175	3.250%	3.250%					3,175		
559	2036	John Day	Corps of Engineers	9/30/2015	9/30/2065	163	163	3.250%	3.250%					163		
560	2036	Lower Granite	Corps of Engineers	9/30/2015	9/30/2065	1,599	1,599	3.250%	3.250%					1,599		
561	2036	Minidoka/Palisades	Bureau of Reclamation	9/30/2015	9/30/2065	19,237	19,237	3.250%	3.250%					19,237		
562	2036	The Dalles	Corps of Engineers	9/30/2015	9/30/2065	456	456	3.250%	3.250%					456		
563	2036	Columbia River Fish Mitigation	Corps of Engineers	9/30/2016	9/30/2066	45,326	45,326	3.000%	3.000%					45,326		
564	2036	Columbia River Fish Mitigation	Corps of Engineers	9/30/2017	9/30/2067	151,772	48,828	3.680%	3.680%					48,828		
565		**FY 2036 Subtotal:**	**-**	**-**	**-**	**755,606**	**652,662**							**524,991**		**3,481**
566	2037	Replacements	-	3/31/2020	3/31/2065	218,435	124,189	4.670%	4.670%					124,189		
567	2037	Replacements	-	3/31/2021	3/31/2066	218,435	218,435	4.670%	4.670%					218,435		
568	2037	Replacements	-	3/31/2022	3/31/2067	218,435	218,435	4.670%	4.670%					213,922		
569		**FY 2037 Subtotal:**	**-**	**-**	**-**	**655,306**	**561,060**							**556,547**		
570	2038	Replacements	-	3/31/2022	3/31/2067	218,435	4,514	4.670%	4.670%					4,514		
571	2038	Replacements	-	3/31/2023	3/31/2068	218,435	218,435	4.670%	4.670%					218,435		
572	2038	Replacements	-	3/31/2024	3/31/2069	218,435	218,435	4.670%	4.670%					218,435		
573	2038	Replacements	-	3/31/2025	3/31/2070	218,435	218,435	4.670%	4.670%					157,826		
574		**FY 2038 Subtotal:**	**-**	**-**	**-**	**873,742**	**659,820**							**599,211**		
575	2039	Replacements	-	3/31/2025	3/31/2070	218,435	60,609	4.670%	4.670%					60,609		
576	2039	Replacements	-	3/31/2026	3/31/2071	218,435	218,435	4.670%	4.670%					218,435		
577	2039	Replacements	-	3/31/2027	3/31/2072	218,435	218,435	4.670%	4.670%					218,435		
578	2039	Replacements	-	3/31/2028	3/31/2073	218,435	218,435	4.670%	4.670%					138,604		
579		**FY 2039 Subtotal:**	**-**	**-**	**-**	**873,742**	**715,916**							**636,084**		
580	2040	Replacements	-	3/31/2028	3/31/2073	218,435	79,831	4.670%	4.670%					79,831		
581	2040	Replacements	-	3/31/2029	3/31/2074	218,435	218,435	4.670%	4.670%					218,435		
582	2040	Replacements	-	3/31/2030	3/31/2075	218,435	218,435	4.670%	4.670%					218,435		
583	2040	Replacements	-	3/31/2031	3/31/2076	218,435	218,435	4.670%	4.670%					156,291		
584		**FY 2040 Subtotal:**	**-**	**-**	**-**	**873,742**	**735,137**							**672,993**		
585	2041	Replacements	-	3/31/2031	3/31/2076	218,435	62,144	4.670%	4.670%					62,144		
586	2041	Replacements	-	3/31/2032	3/31/2077	218,435	218,435	4.670%	4.670%					218,435		
587	2041	Replacements	-	3/31/2033	3/31/2078	218,435	218,435	4.670%	4.670%					218,435		
588	2041	Replacements	-	3/31/2034	3/31/2079	218,435	218,435	4.670%	4.670%					202,891		
589		**FY 2041 Subtotal:**	**-**	**-**	**-**	**873,742**	**717,450**							**701,906**		
590	2042	Replacements	-	3/31/2034	3/31/2079	218,435	15,545	4.670%	4.670%					15,545		
591	2042	Replacements	-	3/31/2035	3/31/2080	218,435	218,435	4.670%	4.670%					218,435		
592	2042	Replacements	-	3/31/2036	3/31/2081	218,435	218,435	4.670%	4.670%					218,435		
593	2042	Replacements	-	3/31/2037	3/31/2082	218,435	218,435	4.670%	4.670%					197,239		
594		**FY 2042 Subtotal:**	**-**	**-**	**-**	**873,742**	**670,851**							**649,655**		
595	2043	Replacements	-	3/31/2037	3/31/2082	218,435	21,196	4.670%	4.670%					21,196		
596	2043	Replacements	-	3/31/2038	3/31/2083	218,435	218,435	4.670%	4.670%					218,435		
597	2043	Replacements	-	3/31/2039	3/31/2084	218,435	218,435	4.670%	4.670%					218,435		
598	2043	Replacements	-	3/31/2040	3/31/2085	218,435	218,435	4.670%	4.670%					218,435		
599	2043	Replacements	-	3/31/2041	3/31/2086	218,435	218,435	4.670%	4.670%					69,239		
600		**FY 2043 Subtotal:**	**-**	**-**	**-**	**1,092,177**	**894,938**							**745,741**		

TABLE 12D
Application of Amortization
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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
601	2044	Replacements	-	3/31/2041	3/31/2086	218,435	149,196	4.670%	4.670%					149,196		
602	2044	Replacements	-	3/31/2042	3/31/2087	218,435	218,435	4.670%	4.670%					218,435		
603	2044	Replacements	-	3/31/2043	3/31/2088	218,435	218,435	4.670%	4.670%					218,435		
604		**FY 2044 Subtotal:**	**-**	**-**	**-**	**655,306**	**586,067**							**586,067**		
605	2045	Replacements	-	3/31/2044	3/31/2089	218,435	218,435	4.670%	4.670%					218,435		
606		**FY 2045 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
607	2046	Replacements	-	3/31/2045	3/31/2090	218,435	218,435	4.670%	4.670%					218,435		
608		**FY 2046 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
609	2047	Replacements	-	3/31/2046	3/31/2091	218,435	218,435	4.670%	4.670%					218,435		
610		**FY 2047 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
611	2048	Replacements	-	3/31/2047	3/31/2092	218,435	218,435	4.670%	4.670%					218,435		
612		**FY 2048 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
613	2049	Replacements	-	3/31/2048	3/31/2093	218,435	218,435	4.670%	4.670%					218,435		
614		**FY 2049 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
615	2050	Replacements	-	3/31/2049	3/31/2094	218,435	218,435	4.670%	4.670%					218,435		
616		**FY 2050 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
617	2051	Replacements	-	3/31/2050	3/31/2095	218,435	218,435	4.670%	4.670%					218,435		
618		**FY 2051 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
619	2052	Replacements	-	3/31/2051	3/31/2096	218,435	218,435	4.670%	4.670%					218,435		
620		**FY 2052 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
621	2053	Replacements	-	3/31/2052	3/31/2097	218,435	218,435	4.670%	4.670%					218,435		
622		**FY 2053 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
623	2054	Replacements	-	3/31/2053	3/31/2098	218,435	218,435	4.670%	4.670%					218,435		
624		**FY 2054 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
625	2055	Replacements	-	3/31/2054	3/31/2099	218,435	218,435	4.670%	4.670%					218,435		
626		**FY 2055 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
627	2056	Replacements	-	3/31/2055	3/31/2100	218,435	218,435	4.670%	4.670%					218,435		
628		**FY 2056 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
629	2057	Replacements	-	3/31/2056	3/31/2101	218,435	218,435	4.670%	4.670%					218,435		
630		**FY 2057 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
631	2058	Boise	Bureau of Reclamation	9/30/2008	9/30/2058	64	64	4.875%	4.875%					64		
632	2058	Bonneville Dam	Corps of Engineers	9/30/2008	9/30/2058	14,609	14,609	4.875%	4.875%					14,609		
633	2058	Columbia River Fish Mitigation	Corps of Engineers	9/30/2008	9/30/2058	36,554	36,554	4.875%	4.875%					36,554		
634	2058	Dworshak	Corps of Engineers	9/30/2008	9/30/2058	10	10	4.875%	4.875%					10		
635	2058	Hungry Horse Dam	Bureau of Reclamation	9/30/2008	9/30/2058	76	76	4.875%	4.875%					76		
636	2058	Ice Harbor	Corps of Engineers	9/30/2008	9/30/2058	14	14	4.875%	4.875%					14		
637	2058	Libby	Corps of Engineers	9/30/2008	9/30/2058	1,567	1,567	4.875%	4.875%					1,567		
638	2058	Little Goose	Corps of Engineers	9/30/2008	9/30/2058	13	13	4.875%	4.875%					13		
639	2058	Lower Granite	Corps of Engineers	9/30/2008	9/30/2058	24	24	4.875%	4.875%					24		
640	2058	Lower Monument	Corps of Engineers	9/30/2008	9/30/2058	9	9	4.875%	4.875%					9		
641	2058	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2008	9/30/2058	74	74	4.875%	4.875%					74		
642	2058	McNary	Corps of Engineers	9/30/2008	9/30/2058	215	215	4.875%	4.875%					215		
643	2058	The Dalles	Corps of Engineers	9/30/2008	9/30/2058	1,651	1,651	4.875%	4.875%					1,651		
644	2058	Chief Joseph	Corps of Engineers	9/30/2008	9/30/2058	3,500	3,500	4.875%	4.875%					3,500		
645	2058	Columbia Basin	Bureau of Reclamation	9/30/2008	9/30/2058	835	835	4.875%	4.875%					835		
646	2058	Replacements	-	3/31/2057	3/31/2102	218,435	218,435	4.670%	4.670%					218,435		
647		**FY 2058 Subtotal:**	**-**	**-**	**-**	**277,651**	**277,651**							**277,651**		
648	2059	Albeni Falls	Corps of Engineers	9/30/2009	9/30/2059	57	57	4.375%	4.375%					57		
649	2059	Columbia Basin	Bureau of Reclamation	9/30/2009	9/30/2059	1,338	1,338	4.375%	4.375%					1,338		
650	2059	Hungry Horse Dam	Bureau of Reclamation	9/30/2009	9/30/2059	60	60	4.375%	4.375%					60		
651	2059	John Day	Corps of Engineers	9/30/2009	9/30/2059	1,548	1,548	4.375%	4.375%					1,548		
652	2059	Yakima Chandler/Kenniwick	Bureau of Reclamation	9/30/2009	9/30/2059	15	15	4.375%	4.375%					15		
653	2059	Replacements	-	3/31/2058	3/31/2103	218,435	218,435	4.670%	4.670%					218,435		
654		**FY 2059 Subtotal:**	**-**	**-**	**-**	**221,454**	**221,454**							**221,454**		
655	2060	Replacements	-	3/31/2059	3/31/2104	218,435	218,435	4.670%	4.670%					218,435		
656		**FY 2060 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
657	2061	Replacements	-	3/31/2060	3/31/2105	218,435	218,435	4.670%	4.670%					218,435		
658		**FY 2061 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
659	2062	Replacements	-	3/31/2061	3/31/2106	218,435	218,435	4.670%	4.670%					218,435		
660		**FY 2062 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
661	2063	Replacements	-	3/31/2062	3/31/2107	218,435	218,435	4.670%	4.670%					218,435		
662		**FY 2063 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
663	2064	Replacements	-	3/31/2063	3/31/2108	218,435	218,435	4.670%	4.670%					218,435		
664		**FY 2064 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
665	2065	Replacements	-	3/31/2064	3/31/2109	218,435	218,435	4.670%	4.670%					218,435		
666		**FY 2065 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
667	2066	Replacements	-	3/31/2065	3/31/2110	218,435	218,435	4.670%	4.670%					218,435		
668		**FY 2066 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
669	2067	Replacements	-	3/31/2066	3/31/2111	218,435	218,435	4.670%	4.670%					218,435		
670		**FY 2067 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
671	2068	Replacements	-	3/31/2067	3/31/2112	218,435	218,435	4.670%	4.670%					218,435		
672		**FY 2068 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
673	2069	Replacements	-	3/31/2068	3/31/2113	218,435	218,435	4.670%	4.670%					218,435		
674		**FY 2069 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
675	Grand Total					20,045,333	18,291,629							17,192,885	11,538	3,481

TABLE 12E:
Summary of Interest
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	**Obligation Type**	**General Project**	**Specific Project**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**
2			Boise	295	295	295	295	295	295	216	54	54	54	54	54	54	54	54	8	4	4
3			Columbia Basin	5,577	5,551	5,551	5,355	5,355	5,298	5,298	5,056	5,056	5,056	5,056	5,056	3,971	988	988	427	380	380
4			Columbia Basin 3rd Powerhouse	25,876	3,120	903	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5			Hungry Horse Dam	834	710	710	267	267	266	266	258	258	258	258	258	226	226	75	60	60	60
6		**Bureau of Reclamation**	Minidoka/Palisades	4,268	4,268	4,268	4,268	4,268	4,268	3,945	628	628	628	628	628	625	625	625	625	625	625
7			RRP - Green Springs	655	655	655	655	655	655	655	655	655	655	655	655						
8			Yakima Chandler/Kenniwick	43	43	43	43	43	43	43	43	43	43	43	43	43	43	1	1	1	1
9			Yakima Roza	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-
10			**Bureau of Reclamation Subtotal:**	**37,548**	**14,643**	**12,426**	**10,884**	**10,884**	**10,826**	**10,424**	**6,695**	**6,695**	**6,695**	**6,695**	**6,695**	**4,920**	**1,937**	**1,743**	**1,121**	**1,070**	**1,070**
11			Albeni Falls	208	208	208	97	60	60	60	29	29	29	29	29	29	29	29	4	4	4
12			Bonneville 2nd Powerhouse	26,226	1,198	705	27	27	27	-	-	-	-	-	-	-	-	-	-	-	-
13			Bonneville Dam	8,323	7,164	7,164	7,086	7,086	7,086	6,896	6,884	6,884	6,884	6,236	6,236	5,387	5,238	2,500	1,489	1,433	1,433
14			Chief Joseph	16,243	1,895	1,895	1,450	1,450	1,408	1,372	1,325	1,325	1,325	1,325	1,325	1,325	1,305	1,254	1,254	1,254	1,254
15			Columbia River Fish Mitigation	61,273	62,632	68,217	68,603	70,720	70,546	70,546	70,546	70,546	70,136	67,667	67,667	67,305	67,305	58,676	55,029	53,955	47,081
16			Cougar	765	765	765	765	765	765	765	763	763	763	763	763	763	763	569	152	146	146
17			Detroit Lake/Big Cliff	100	100	100	98	98	98	98	98	98	98	98	98	81	81	69	16	16	16
18	**Appropriation**		Dworshak	890	860	860	776	776	773	773	230	230	230	230	230	230	230	146	110	110	110
19			Green Peter/Foster	33	33	33	33	33	31	31	31	31	31	31	31	20	20	20	20	20	20
20			Hills Creek	171	171	171	171	171	169	169	169	169	8	8	8	8	8	5	5	5	5
21		**Corps of Engineers**	Ice Harbor	910	905	878	878	878	878	878	873	873	840	840	840	795	795	262	262	262	262
22			John Day	1,653	1,653	1,639	1,046	1,046	1,046	1,046	1,033	916	864	864	864	827	827	342	330	330	303
23			Libby	1,537	1,515	458	458	458	458	458	411	411	411	411	411	84	84	84	84	84	84
24			Little Goose	4,410	862	776	776	629	426	426	426	426	426	426	426	155	155	143	143	143	143
25			Lookout Dam	740	740	740	735	735	735	735	632	423	423	423	423	423	423	39	11	11	11
26			Lost Creek	900	17	17	11	9	9	9	9	9	9	9	9						
27			Lower Granite	3,833	804	804	804	759	759	759	710	710	710	710	710	591	591	453	453	453	453
28			Lower Monument	3,662	736	717	582	581	581	581	581	581	581	581	581	387	387	174	174	174	161
29			McNary	746	744	744	743	698	698	698	698	698	698	698	698	637	637	274	274	274	90
30			The Dalles	2,418	2,418	2,418	2,418	2,275	2,275	2,275	2,117	2,117	2,117	2,117	2,117	2,117	2,049	194	187	187	95
31			**Corps of Engineers Subtotal:**	**135,043**	**85,422**	**89,312**	**87,557**	**89,256**	**88,829**	**88,576**	**87,567**	**87,242**	**86,585**	**83,467**	**83,467**	**81,165**	**80,929**	**65,232**	**59,996**	**58,860**	**51,671**
32		**Lower Snake Fish & Wildlife**	Lower Snake Fish and Wildlife	16,534	15,857	3,872	1,301	436	436	436	187	187	187	187	187	168	168	101	101	101	84
33			**Lower Snake Fish & Wildlife Subtotal:**	**16,534**	**15,857**	**3,872**	**1,301**	**436**	**436**	**436**	**187**	**187**	**187**	**187**	**187**	**168**	**168**	**101**	**101**	**101**	**84**
34		**Appropriation Subtotal:**		189,125	115,921	105,610	99,742	100,577	100,092	99,437	94,449	94,124	93,467	90,350	90,350	86,253	83,035	67,077	61,218	60,032	52,826
35			(Less Interest Income)	(1,990)	(1,327)	(1,228)	(1,597)	(1,377)	(1,446)	(1,403)	(1,399)	(1,360)	(1,292)	(1,292)	(1,295)	(1,215)	(2,398)	(1,995)	(2,228)	(2,724)	(2,867)
36			Bureau Direct	28,376	29,622	31,487	34,620	39,255	36,783	34,242	33,649	33,564	33,564	33,564	33,564	33,564	32,915	29,916	22,934	12,841	7,046
37			Interest Accrual	5,616	5,769	6,072	6,184	5,168	5,004	5,004	4,968	4,968	4,968	4,968	4,968	4,968	4,644	3,523	2,358	906	810
38			Interest Accrual Reversal	(5,297)	(5,616)	(5,769)	(6,072)	(6,184)	(5,168)	(5,004)	(5,004)	(4,968)	(4,968)	(4,968)	(4,968)	(4,968)	(4,968)	(4,644)	(3,523)	(2,358)	(906)
39			Conservation	9,052	9,050	8,937	8,887	8,887	8,887	8,409	7,289	2,538	1,883	849	136	60	-	-	-	-	-
40			Interest Accrual	2,025	1,983	1,967	1,967	1,967	1,887	1,829	882	658	583	50	50	-	-	-	-	-	-
41			Interest Accrual Reversal	(1,975)	(2,025)	(1,983)	(1,967)	(1,967)	(1,967)	(1,887)	(1,829)	(882)	(658)	(583)	(50)	(50)	-	-	-	-	-
42			Construction (AS)	715	693	716	907	966	769	650	615	452	231	-	-	-	-	-	-	-	-
43			Interest Accrual	189	171	171	151	58	24	-	-	-	-	-	-	-	-	-	-	-	-
44		**BPA Borrowing**	Interest Accrual Reversal	(169)	(189)	(171)	(171)	(151)	(58)	(24)	-	-	-	-	-	-	-	-	-	-	-
45			Corps	133	1,941	8,419	15,380	21,053	21,053	21,053	21,053	21,053	21,053	21,053	21,053	21,053	21,053	21,053	19,706	15,457	11,249
46	**Treasury**		Interest Accrual	717	1,249	1,827	2,296	2,296	2,296	2,296	2,296	2,296	2,296	2,296	2,296	2,296	2,296	2,165	1,580	1,111	564
47			Interest Accrual Reversal	-	(717)	(1,249)	(1,827)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,165)	(1,580)	(1,111)
48			Fish and Wildlife	10,814	10,830	12,544	14,137	14,950	14,950	14,950	13,981	14,038	13,080	11,640	9,051	7,997	6,459	5,794	5,740	5,706	3,992
49			Interest Accrual	1,985	1,985	1,985	1,676	1,676	1,676	1,676	1,676	1,433	1,433	853	422	422	3	3	-	-	-
50			Interest Accrual Reversal	(1,982)	(1,985)	(1,985)	(1,985)	(1,676)	(1,676)	(1,676)	(1,676)	(1,676)	(1,433)	(1,433)	(853)	(422)	(422)	(3)	(3)	-	-
51			Technology (G)	537	544	694	876	1,067	810	553	373	96	-	-	-	-	-	-	-	-	-
52			Interest Accrual	90	90	90	90	90	5	-	-	-	-	-	-	-	-	-	-	-	-
53			Interest Accrual Reversal	(85)	(90)	(90)	(90)	(90)	(90)	(5)	-	-	-	-	-	-	-	-	-	-	-
54			**BPA Borrowing Subtotal:**	**48,751**	**51,977**	**62,435**	**73,461**	**83,693**	**81,443**	**78,367**	**74,580**	**69,914**	**68,444**	**64,701**	**62,079**	**61,409**	**57,285**	**53,516**	**44,398**	**29,359**	**18,777**
55			Replacements	-	-	-	-	5,100	15,301	25,502	35,703	45,904	56,105	66,306	76,507	86,708	96,909	107,110	117,311	127,512	137,713
56		**Federal Generation Replacements**	**Federal Generation Replacements Subtotal:**	**-**	**-**	**-**	**-**	**5,100**	**15,301**	**25,502**	**35,703**	**45,904**	**56,105**	**66,306**	**76,507**	**86,708**	**96,909**	**107,110**	**117,311**	**127,512**	**137,713**
57		**Treasury Subtotal:**		**48,751**	**51,977**	**62,435**	**73,461**	**88,794**	**96,745**	**103,870**	**110,284**	**115,818**	**124,549**	**131,007**	**138,586**	**148,117**	**154,194**	**160,626**	**161,709**	**156,871**	**156,489**
58	**Grand Total:**			**$237,876**	**$167,898**	**$168,045**	**$173,203**	**$189,370**	**$196,836**	**$203,306**	**$204,733**	**$209,942**	**$218,016**	**$221,357**	**$228,936**	**$234,371**	**$237,229**	**$227,703**	**$222,927**	**$216,903**	**$209,315**

TABLE 12E:
Summary of Interest
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN
1	**Obligation Type**	**General Project**	**Specific Project**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**
2			Boise	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
3			Columbia Basin	291	254	188	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
4			Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5			Hungry Horse Dam	60	27	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
6		**Bureau of Reclamation**	Minidoka/Palisades	625	625	625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7			RRP - Green Springs				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8			Yakima Chandler/Kenniwick	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9			Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10			**Bureau of Reclamation Subtotal:**	**980**	**910**	**825**	**109**	**109**	**109**	**109**	**109**	**109**	**109**	**109**	**109**	**109**	**109**	**109**	**109**	**109**	**109**	**109**
11			Albeni Falls	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
12			Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13			Bonneville Dam	1,315	1,134	723	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712
14			Chief Joseph	1,254	172	172	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
15			Columbia River Fish Mitigation	37,468	29,319	13,197	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782
16			Cougar	141	133	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17			Detroit Lake/Big Cliff	16	16	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	**Appropriation**		Dworshak	107																		
19			Green Peter/Foster	20	20	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20			Hills Creek	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21		**Corps of Engineers**	Ice Harbor	262	138	108	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22			John Day	303	288	281	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
23			Libby	84	83	77	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
24			Little Goose	143	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25			Lookout Dam	11	11	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26			Lost Creek			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27			Lower Granite	453	156	53	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28			Lower Monument	161	59	3																
29			McNary	90	90	40	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
30			The Dalles	95	95	95	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
31			**Corps of Engineers Subtotal:**	**41,931**	**31,725**	**14,909**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**
32		**Lower Snake Fish & Wildlife**	Lower Snake Fish and Wildlife	84	17	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
33			**Lower Snake Fish & Wildlife Subtotal:**	**84**	**17**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**
34		**Appropriation Subtotal:**		42,996	32,652	15,737	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019
35			(Less Interest Income)	(2,848)	(2,850)	(2,833)	(2,824)	(2,902)	(3,081)	(3,133)	(3,209)	(3,258)	(3,302)	(2,853)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)
36			Bureau Direct	3,933	915	88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37			Interest Accrual	379	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38			Interest Accrual Reversal	(810)	(379)	(29)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39			Conservation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40			Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41			Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42			Construction (AS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43			Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44		**BPA Borrowing**	Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45			Corps	4,426	2,171	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	**Treasury**		Interest Accrual	184	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47			Interest Accrual Reversal	(564)	(184)	(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48			Fish and Wildlife	1,870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49			Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50			Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51			Technology (G)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52			Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53			Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54			**BPA Borrowing Subtotal:**	**6,570**	**(295)**	**(2,768)**	**(2,824)**	**(2,902)**	**(3,081)**	**(3,133)**	**(3,209)**	**(3,258)**	**(3,302)**	**(2,853)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**
55			Replacements	147,914	158,114	166,115	161,120	144,334	125,690	105,324	83,422	62,064	39,682	18,785	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201
56		**Federal Generation Replacements**	**Federal Generation Replacements Subtotal:**	**147,914**	**158,114**	**166,115**	**161,120**	**144,334**	**125,690**	**105,324**	**83,422**	**62,064**	**39,682**	**18,785**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**
57		**Treasury Subtotal:**		**154,484**	**157,819**	**163,347**	**158,296**	**141,432**	**122,610**	**102,191**	**80,212**	**58,805**	**36,380**	**15,932**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**
58	**Grand Total:**			**$197,480**	**$190,471**	**$179,085**	**$161,315**	**$144,451**	**$125,629**	**$105,210**	**$83,231**	**$61,824**	**$39,398**	**$18,951**	**$11,827**	**$11,827**	**$11,827**	**$11,827**	**$11,827**	**$11,827**	**$11,827**	**$11,827**

TABLE 12E:
Summary of Interest
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF
1	**Obligation Type**	**General Project**	**Specific Project**	**2053**	**2054**	**2055**	**2056**	**2057**	**2058**	**2059**	**2060**	**2061**	**2062**	**2063**	**2064**	**2065**	**2066**	**2067**	**2068**	**2069**	**Total**
2			Boise	3	3	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	2,511
3			Columbia Basin	99	99	99	99	99	99	59	-	-	-	-	-	-	-	-	-	-	73,371
4			Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29,899
5			Hungry Horse Dam	6	6	6	6	6	6	3	-	-	-	-	-	-	-	-	-	-	5,556
6		**Bureau of Reclamation**	Minidoka/Palisades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38,321
7			RRP - Green Springs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,859
8			Yakima Chandler/Kenniwick	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	627
9			Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
10			**Bureau of Reclamation Subtotal:**	**109**	**109**	**109**	**109**	**109**	**109**	**62**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**158,154**
11			Albeni Falls	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	1,212
12			Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28,210
13			Bonneville Dam	712	712	712	712	712	712	-	-	-	-	-	-	-	-	-	-	-	120,250
14			Chief Joseph	171	171	171	171	171	171	-	-	-	-	-	-	-	-	-	-	-	45,334
15			Columbia River Fish Mitigation	1,782	1,782	1,782	1,782	1,782	1,782	-	-	-	-	-	-	-	-	-	-	-	1,287,641
16			Cougar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,108
17			Detroit Lake/Big Cliff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,506
18	**Appropriation**		Dworshak							-	-	-	-	-	-	-	-	-	-	-	7,913
19			Green Peter/Foster	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	546
20			Hills Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,609
21		**Corps of Engineers**	Ice Harbor	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	13,632
22			John Day	68	68	68	68	68	68	68	-	-	-	-	-	-	-	-	-	-	19,059
23			Libby	76	76	76	76	76	76	-	-	-	-	-	-	-	-	-	-	-	9,828
24			Little Goose	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	11,477
25			Lookout Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,434
26			Lost Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,019
27			Lower Granite	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	15,758
28			Lower Monument							-	-	-	-	-	-	-	-	-	-	-	12,039
29			McNary	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	-	11,198
30			The Dalles	80	80	80	80	80	80	-	-	-	-	-	-	-	-	-	-	-	33,966
31			**Corps of Engineers Subtotal:**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**2,906**	**70**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,642,740**
32			Lower Snake Fish and Wildlife	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	40,720
33		**Lower Snake Fish & Wildlife**	**Lower Snake Fish & Wildlife Subtotal:**	**4**	**4**	**4**	**4**	**4**	**4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**40,720**
34		**Appropriation Subtotal:**		3,019	3,019	3,019	3,019	3,019	3,019	132	-	-	-	-	-	-	-	-	-	-	1,841,614
35			(Less Interest Income)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(1,393)	(98,349)
36			Bureau Direct	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	546,440
37			Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81,275
38			Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(86,572)
39			Conservation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74,865
40			Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,850
41			Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(17,825)
42			Construction (AS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,717
43			Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	763
44		**BPA Borrowing**	Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(933)
45			Corps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	310,478
46	**Treasury**		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34,655
47			Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(34,655)
48			Fish and Wildlife	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	192,521
49			Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18,908
50			Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(20,890)
51			Technology (G)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,552
52			Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	454
53			Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(539)
54			**BPA Borrowing Subtotal:**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**(1,393)**	**1,028,713**
55			Replacements	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	2,467,278
56		**Federal Generation Replacements**	**Federal Generation Replacements Subtotal:**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**10,201**	**2,467,278**
57		**Treasury Subtotal:**		**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**8,808**	**3,495,992**
58	**Grand Total:**			**$11,827**	**$11,827**	**$11,827**	**$11,827**	**$11,827**	**$11,827**	**$8,940**	**$8,808**	**$8,808**	**$8,808**	**$8,808**	**$8,808**	**$8,808**	**$8,808**	**$8,808**	**$8,808**	**$8,808**	**$5,337,606**

TABLE 12F:
Summary of Amortization
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	**Obligation Type**	**General Project**	**Specific Project**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
2			Boise	-	-	-	-	-	1,098	2,266	-	-	-	-	-	-	-	903	76	-
3			Columbia Basin	360	-	2,740	-	794	-	3,393	-	-	-	-	18,462	50,763	-	10,963	929	-
4			Columbia Basin 3rd Powerhouse	318,259	31,007	12,631	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5			Hungry Horse Dam	1,731	-	6,190	-	17	-	111	-	-	-	-	552	-	2,951	294	-	-
6		**Bureau of Reclamation**	Minidoka/Palisades	-	-	-	-	-	4,524	46,387	-	-	-	-	42	-	-	-	-	-
7			RRP - Green Springs	-	-	-	-	-	-	-	-	-	-	-	11,145	-	-	-	-	-
8			Yakima Chandler/Kenniwick	-	-	-	-	-	-	-	-	-	-	-	-	-	833	-	-	-
9			Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-
10			**Bureau of Reclamation Subtotal:**	**320,350**	**31,007**	**21,561**	**-**	**811**	**5,622**	**52,158**	**-**	**-**	**-**	**-**	**30,216**	**50,763**	**3,784**	**12,160**	**1,005**	**-**
11			Albeni Falls	-	-	1,562	517	-	-	431	-	-	-	-	-	-	-	481	-	-
12			Bonneville 2nd Powerhouse	350,037	6,892	9,491	-	-	376	-	-	-	-	-	-	-	-	-	-	-
13			Bonneville Dam	16,210	-	1,093	-	-	2,663	161	-	-	10,584		13,862	2,530	51,138	19,725	1,124	-
14			Chief Joseph	200,678	-	6,222	-	594	497	657	-	-	-	-	-	345	994	-	-	-
15			Columbia River Fish Mitigation	-	-	39,282	-	2,431	-	-	-	6,695	40,310	-	6,168	-	164,080	71,953	21,464	152,764
16			Cougar	-	-	-	-	-	-	26	-	-	-	-	-	-	3,622	8,130	120	-
17			Detroit Lake/Big Cliff	-	-	38	-	-	-	-	-	-	-	-	282	-	241	1,031	-	-
18	**Appropriation**		Dworshak	427	-	1,162	-	53	-	7,588	-	-	-	-	-	-	1,590	713	-	-
19			Green Peter/Foster	-	-	-	-	26	-	-	-	-	-	-	200	-	-	-	-	-
20			Hills Creek	-	-	-	-	28	-	-	-	2,630	-	-	8	-	47	-	-	-
21		**Corps of Engineers**	Ice Harbor	78	371	-	-	-	-	67	-	548	-	-	764	-	9,900	-	-	-
22			John Day	-	195	8,298	-	-	-	179	1,905	856	-	-	619	-	9,167	233	-	601
23			Libby	302	14,781	-	-	-	-	660	-	-	-	-	5,562	-	-	-	-	-
24			Little Goose	49,625	1,200	-	2,060	2,841	-	1	-	-	-	-	4,608	-	240	-	-	-
25			Lookout Dam	-	-	72	-	-	-	1,694	3,405	-	-	-	-	-	7,490	572	-	-
26			Lost Creek	12,345	-	94	24	-	-	-	-	-	-	-	147	-	-	-	-	-
27			Lower Granite	42,368	-	-	634	-	-	677	-	-	-	-	2,025	-	2,565	-	-	-
28			Lower Monument	40,925	264	1,886	10	-	-	-	-	-	-	-	3,301	-	4,001	-	-	285
29			McNary	30	-	16	619	-	-	-	-	-	-	-	1,046	-	6,784	-	-	4,080
30			The Dalles	-	-	-	1,991	-	-	2,588	-	-	-	-	-	1,225	36,201	140	-	2,030
31			**Corps of Engineers Subtotal:**	**713,025**	**23,703**	**69,216**	**5,855**	**5,973**	**3,536**	**14,729**	**5,309**	**10,730**	**50,895**		**38,591**	**4,100**	**298,062**	**102,978**	**22,707**	**159,760**
32		**Lower Snake Fish & Wildlife**	Lower Snake Fish and Wildlife	9,472	167,614	35,970	12,085	-	-	3,702	-	-	-	-	325	-	1,229	-	-	379
33			**Lower Snake Fish & Wildlife Subtotal:**	**9,472**	**167,614**	**35,970**	**12,085**	**-**	**-**	**3,702**	**-**	**-**	**-**	**-**	**325**	**-**	**1,229**	**-**	**-**	**379**
34		**Appropriation Subtotal:**		1,042,848	222,323	126,747	17,940	6,784	9,158	70,589	5,309	10,730	50,895		69,133	54,863	303,074	115,137	23,712	160,139
35			**Bureau Direct**	-	-	-	105,000	120,000	97,000	19,000	-	-	-	-	-	-	25,000	168,000	224,561	201,439
36			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38			**Conservation**	-	20,000	9,000	-	-	19,000	16,000	142,000	97,000	69,000	39,000	6,000	25,000	-	-	-	-
39			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41			**Construction (AS)**	10,500	15,150	-	5,250	18,100	7,000	5,800	5,250	5,950	5,950	-	-	-	-	-	-	-
42			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44		**BPA Borrowing**	**Corps**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000	94,000	82,000
45			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47			**Fish and Wildlife**	-	-	-	46,000	-	-	31,000	-	25,000	-	80,000	55,000	26,000	56,000	8,000	13,000	45,000
48	**Bond**		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50			**Technology (G)**	-	-	-	-	-	35,000	11,000	5,000	5,000	-	-	-	-	-	-	-	-
51			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53			**BPA Borrowing Subtotal:**	10,500	35,150	9,000	156,250	138,100	158,000	82,800	152,250	132,950	74,950	119,000	61,000	51,000	81,000	191,000	331,561	328,439
54			**Replacements**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56		**Federal Generation Replacements**	Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57			**Federal Generation Replacements Subtotal:**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58			**Discounts**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59		**Make Whole Call**	**Premiums**	-	-	-	-	-	-	-	-	-	-	-	-	-	2,315	2,607	4,975	1,100
60			**Make Whole Call Subtotal:**	-	-	-	-	-	-	-	-	-	-	-	-	-	2,315	2,607	4,975	1,100
61		**Bond Subtotal:**		10,500	35,150	9,000	156,250	138,100	158,000	82,800	152,250	132,950	74,950	119,000	61,000	51,000	81,000	191,000	331,561	328,439
62		**Irrigation Assistance**	Irrigation Assistance	60,184	50,769	27,234	56,573	24,317	14,747	16,060	12,846	15,117	13,543	20,755	6,118	11,186	4,065	1,996	10,524	-
63	**Irrigation**		**Irrigation Assistance Subtotal:**	60,184	50,769	27,234	56,573	24,317	14,747	16,060	12,846	15,117	13,543	20,755	6,118	11,186	4,065	1,996	10,524	-
64		**Irrigation Subtotal:**		60,184	50,769	27,234	56,573	24,317	14,747	16,060	12,846	15,117	13,543	20,755	6,118	11,186	4,065	1,996	10,524	-
65	**Grand Total:**			**$1,113,532**	**$308,242**	**$162,981**	**$230,763**	**$169,201**	**$181,904**	**$169,448**	**$170,405**	**$158,797**	**$139,387**	**$139,755**	**$136,251**	**$117,050**	**$388,139**	**$308,133**	**$365,797**	**$488,577**

TABLE 12F:
Summary of Amortization
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	**Obligation Type**	**General Project**	**Specific Project**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**
2			Boise	15	2	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3			Columbia Basin	1,987	877	1,742	3,093	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4			Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5			Hungry Horse Dam	-	779	515	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6		**Bureau of Reclamation**	Minidoka/Palisades	-	-	-	19,244	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7			RRP - Green Springs	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8			Yakima Chandler/Kenniwick	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9			Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10			**Bureau of Reclamation Subtotal:**	**2,002**	**1,659**	**2,257**	**22,379**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
11			Albeni Falls	-	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12			Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13			Bonneville Dam	2,628	4,169	10,963	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14			Chief Joseph	-	24,727	4	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15			Columbia River Fish Mitigation	213,631	190,644	422,892	355,332	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16			Cougar	109	180	293	4,227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17			Detroit Lake/Big Cliff	-	-	18	528	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	**Appropriation**		Dworshak	73	2,425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19			Green Peter/Foster	-	-	472	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20			Hills Creek	-	-	12	142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21		**Corps of Engineers**	Ice Harbor	-	2,822	819	3,290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22			John Day	-	356	175	6,342	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23			Libby	-	40	152	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24			Little Goose	-	3,201	-	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25			Lookout Dam	-	-	17	294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26			Lost Creek	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27			Lower Granite	-	6,825	2,653	1,599	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28			Lower Monument	-	2,332	1,430	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29			McNary	-	-	1,324	1,011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30			The Dalles	-	-	-	456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31			**Corps of Engineers Subtotal:**	**216,441**	**237,764**	**441,229**	**373,847**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
32		**Lower Snake Fish & Wildlife**	Lower Snake Fish and Wildlife	-	1,545	343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33			**Lower Snake Fish & Wildlife Subtotal:**	**-**	**1,545**	**343**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
34		**Appropriation Subtotal:**		218,443	240,968	443,829	396,227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35			**Bureau Direct**	90,908	142,092	36,000	32,151	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38			**Conservation**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41			**Construction (AS)**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44		**BPA Borrowing**	**Corps**	164,000	108,000	55,000	2,368	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47			**Fish and Wildlife**	51,000	44,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	**Bond**		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50			**Technology (G)**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53			**BPA Borrowing Subtotal:**	305,908	294,092	91,000	34,519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54			**Replacements**	-	-	-	94,246	556,547	599,211	636,084	672,993	701,906	649,655	745,741	586,067	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435
55			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56		**Federal Generation Replacements**	Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57			**Federal Generation Replacements Subtotal:**	-	-	-	94,246	556,547	599,211	636,084	672,993	701,906	649,655	745,741	586,067	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435
58			**Discounts**	-	-	-	(3,481)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59		**Make Whole Call**	**Premiums**	-	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60			**Make Whole Call Subtotal:**	-	540	-	(3,481)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61		**Bond Subtotal:**		305,908	294,092	91,000	132,246	556,547	599,211	636,084	672,993	701,906	649,655	745,741	586,067	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435
62		**Irrigation Assistance**	Irrigation Assistance	4,347	-	7,761	28,920	15,778	-	14,181	-	-	73,659	-	-	11,579	-	-	-	-	-	-	-	-	-
63	**Irrigation**		**Irrigation Assistance Subtotal:**	4,347	-	7,761	28,920	15,778	-	14,181	-	-	73,659	-	-	11,579	-	-	-	-	-	-	-	-	-
64		**Irrigation Subtotal:**		4,347	-	7,761	28,920	15,778	-	14,181	-	-	73,659	-	-	11,579	-	-	-	-	-	-	-	-	-
65	**Grand Total:**			**$528,698**	**$535,060**	**$542,590**	**$557,393**	**$572,324**	**$599,211**	**$650,266**	**$672,993**	**$701,906**	**$723,314**	**$745,741**	**$586,067**	**$230,014**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**

TABLE 12F:
Summary of Amortization
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF
1	**Obligation Type**	**General Project**	**Specific Project**	**2055**	**2056**	**2057**	**2058**	**2059**	**2060**	**2061**	**2062**	**2063**	**2064**	**2065**	**2066**	**2067**	**2068**	**2069**	**Total**
2			Boise	-	-	-	64	-	-	-	-	-	-	-	-	-	-	-	4,429
3			Columbia Basin	-	-	-	835	1,338	-	-	-	-	-	-	-	-	-	-	98,275
4			Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	361,897
5			Hungry Horse Dam	-	-	-	76	60	-	-	-	-	-	-	-	-	-	-	13,312
6		**Bureau of Reclamation**	Minidoka/Palisades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70,197
7			RRP - Green Springs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,148
8			Yakima Chandler/Kenniwick	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	848
9			Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
10			**Bureau of Reclamation Subtotal:**	**-**	**-**	**-**	**975**	**1,414**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**560,121**
11			Albeni Falls	-	-	-	-	57	-	-	-	-	-	-	-	-	-	-	3,090
12			Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	366,796
13			Bonneville Dam	-	-	-	14,609	-	-	-	-	-	-	-	-	-	-	-	151,828
14			Chief Joseph	-	-	-	3,500	-	-	-	-	-	-	-	-	-	-	-	238,256
15			Columbia River Fish Mitigation	-	-	-	36,554	-	-	-	-	-	-	-	-	-	-	-	1,724,201
16			Cougar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16,708
17			Detroit Lake/Big Cliff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,138
18	**Appropriation**		Dworshak	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	14,040
19			Green Peter/Foster	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745
20			Hills Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,867
21		**Corps of Engineers**	Ice Harbor	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	18,673
22			John Day	-	-	-	-	1,548	-	-	-	-	-	-	-	-	-	-	30,473
23			Libby	-	-	-	1,567	-	-	-	-	-	-	-	-	-	-	-	23,079
24			Little Goose	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	63,856
25			Lookout Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,543
26			Lost Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,618
27			Lower Granite	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	59,370
28			Lower Monument	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	54,534
29			McNary	-	-	-	215	-	-	-	-	-	-	-	-	-	-	-	15,126
30			The Dalles	-	-	-	1,651	-	-	-	-	-	-	-	-	-	-	-	46,282
31			**Corps of Engineers Subtotal:**	**-**	**-**	**-**	**58,167**	**1,605**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2,858,221**
32		**Lower Snake Fish & Wildlife**	Lower Snake Fish and Wildlife	-	-	-	74	-	-	-	-	-	-	-	-	-	-	-	232,739
33			**Lower Snake Fish & Wildlife Subtotal:**	**-**	**-**	**-**	**74**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**232,739**
34		**Appropriation Subtotal:**		-	-	-	59,216	3,018	-	-	-	-	-	-	-	-	-	-	3,651,081
35			**Bureau Direct**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,261,151
36			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38			**Conservation**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	442,000
39			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41			**Construction (AS)**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78,950
42			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44		**BPA Borrowing**	**Corps**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	520,368
45			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47			**Fish and Wildlife**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	480,000
48	**Bond**		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50			**Technology (G)**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56,000
51			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52			Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53			**BPA Borrowing Subtotal:**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,838,469
54			**Replacements**	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	10,703,335
55			Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56		**Federal Generation Replacements**	Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57			**Federal Generation Replacements Subtotal:**	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	10,703,335
58			**Discounts**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(3,481)
59		**Make Whole Call**	**Premiums**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,538
60			**Make Whole Call Subtotal:**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,057
61		**Bond Subtotal:**		218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	13,545,285
62		**Irrigation Assistance**	Irrigation Assistance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502,258
63	**Irrigation**		**Irrigation Assistance Subtotal:**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502,258
64		**Irrigation Subtotal:**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502,258
65	**Grand Total:**			**$218,435**	**$218,435**	**$218,435**	**$277,651**	**$221,454**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$218,435**	**$17,698,624**

13. REPAYMENT STUDY DATA, FY 2019 STUDY, POST-SHIFT

TABLE 13A:
HISTORICAL INVESTMENTS, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1	Albeni Falls	09/1955	09/2005	6.910%	25,494	0		
2	Albeni Falls	09/1956	09/2005	6.910%	11	0		
3	Albeni Falls	09/1957	09/2005	6.910%	10	0		
4	Albeni Falls	09/1958	09/2005	6.910%	11	0		
5	Albeni Falls	09/1959	09/2005	6.910%	11	0		
6	Albeni Falls	09/1960	09/2005	6.910%	10	0		
7	Albeni Falls	09/1961	09/2005	6.910%	11	0		
8	Albeni Falls	09/1962	09/2005	6.910%	11	0		
9	Albeni Falls	09/1963	09/2005	6.910%	10	0		
10	Albeni Falls	09/1964	09/2005	6.910%	11	0		
11	Albeni Falls	09/1965	09/2005	6.910%	11	0		
12	Albeni Falls	09/1966	09/2005	6.910%	10	0		
13	Albeni Falls	09/1967	09/2005	6.910%	11	0		
14	Albeni Falls	09/1968	09/2005	6.910%	11	0		
15	Albeni Falls	09/1969	09/2005	6.910%	10	0		
16	Albeni Falls	09/1970	09/2005	6.910%	11	0		
17	Albeni Falls	09/1971	09/2005	6.910%	11	0		
18	Albeni Falls	09/1972	09/2005	6.910%	10	0		
19	Albeni Falls	09/1973	09/2005	6.910%	11	0		
20	Albeni Falls	09/1974	09/2005	6.910%	11	0		
21	Albeni Falls	09/1975	09/2005	6.910%	10	0		
22	Albeni Falls	09/1976	09/2005	6.910%	11	0		
23	Albeni Falls	09/1977	09/2005	6.910%	11	0		
24	Albeni Falls	09/1978	09/2005	6.910%	10	0		
25	Albeni Falls	09/1979	09/2005	6.910%	11	0		
26	Albeni Falls	09/1980	09/2005	6.910%	11	0		
27	Albeni Falls	09/1981	09/2005	6.910%	10	0		
28	Albeni Falls	09/1982	09/2005	6.910%	11	0		
29	Albeni Falls	09/1983	09/2005	6.910%	11	0		
30	Albeni Falls	09/1985	09/2005	6.910%	7	0		
31	Albeni Falls	09/1986	09/2005	6.910%	293	0		
32	Albeni Falls	09/1987	09/2005	6.910%	12	0		
33	Albeni Falls	09/1987	09/2005	8.888%	15	0		
34	Albeni Falls	09/1988	09/2005	8.500%	328	0		
35	Albeni Falls	09/1989	09/2005	9.250%	221	0		
36	Albeni Falls	09/1990	09/2005	8.875%	1,287	0		
37	Albeni Falls	09/1991	09/2005	8.750%	43	0		
38	Albeni Falls	09/1991	09/2005	8.750%	111	0		
39	Albeni Falls	09/1992	09/2005	8.500%	7	0		
40	Albeni Falls	09/1992	09/2005	8.500%	106	0		
41	Albeni Falls	09/1993	09/2005	7.875%	295	0		
42	Albeni Falls	09/1993	09/2005	7.875%	714	0		
43	Albeni Falls	09/1994	09/2019	7.125%	61	0		
44	Albeni Falls	09/1994	09/2019	7.125%	173	0		
45	Albeni Falls	09/1995	09/2010	7.090%	17	0		
46	Albeni Falls	09/1995	09/2010	7.890%	51	0		
47	Albeni Falls	09/1995	09/2045	7.150%	443	443		
48	Albeni Falls	09/1995	09/2045	7.150%	531	531		
49	Albeni Falls	09/1995	09/2045	7.150%	1,105	1,105		
50	Albeni Falls	09/1996	09/2016	7.290%	130	0		
51	Albeni Falls	09/1997	09/2047	7.150%	431	431		
52	Albeni Falls	09/2005	09/2055	5.125%	481	481		
53	Albeni Falls	09/2009	09/2059	4.375%	57	57		
54	Albeni Falls	09/2010	09/2060	4.250%	42	42		
55	Boise	09/1912	09/1962	3.000%	1,249	0		
56	Boise	09/1912	09/1962	3.000%	285	0		
57	Boise	09/1926	09/1976	3.000%	190	0		
58	Boise	09/1926	09/1976	3.000%	832	0		
59	Boise	09/1950	09/2000	3.000%	416	0		
60	Boise	09/1950	09/2000	3.000%	95	0		
61	Boise	09/1951	09/2001	3.000%	1,873	0		
62	Boise	09/1951	09/2001	3.000%	428	0		
63	Boise	09/1952	09/2001	3.000%	11	0		
64	Boise	09/1952	09/2001	3.000%	3	0		
65	Boise	09/1953	09/2001	3.000%	11	0		
66	Boise	09/1953	09/2001	3.000%	3	0		
67	Boise	09/1954	09/2001	3.000%	11	0		
68	Boise	09/1954	09/2001	3.000%	3	0		
69	Boise	09/1955	09/2001	3.000%	11	0		
70	Boise	09/1955	09/2001	3.000%	3	0		
71	Boise	09/1956	09/2001	3.000%	11	0		
72	Boise	09/1956	09/2001	3.000%	3	0		
73	Boise	09/1957	09/2001	3.000%	11	0		
74	Boise	09/1957	09/2001	3.000%	3	0		
75	Boise	09/1958	09/2001	3.000%	11	0		
76	Boise	09/1958	09/2001	3.000%	3	0		
77	Boise	09/1959	09/2001	3.000%	11	0		
78	Boise	09/1959	09/2001	3.000%	3	0		
79	Boise	09/1960	09/2001	3.000%	11	0		
80	Boise	09/1960	09/2001	3.000%	3	0		
81	Boise	09/1961	09/2001	3.000%	11	0		
82	Boise	09/1961	09/2001	3.000%	3	0		

TABLE 13A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
83	Boise	09/1962	09/2001	3.000%	11	0		
84	Boise	09/1962	09/2001	3.000%	3	0		
85	Boise	09/1963	09/2001	3.000%	11	0		
86	Boise	09/1963	09/2001	3.000%	3	0		
87	Boise	09/1964	09/2001	3.000%	11	0		
88	Boise	09/1964	09/2001	3.000%	3	0		
89	Boise	09/1965	09/2001	3.000%	11	0		
90	Boise	09/1965	09/2001	3.000%	3	0		
91	Boise	09/1966	09/2001	3.000%	11	0		
92	Boise	09/1966	09/2001	3.000%	3	0		
93	Boise	09/1967	09/2001	3.000%	11	0		
94	Boise	09/1967	09/2001	3.000%	3	0		
95	Boise	09/1968	09/2001	3.000%	11	0		
96	Boise	09/1968	09/2001	3.000%	3	0		
97	Boise	09/1969	09/2001	3.000%	11	0		
98	Boise	09/1969	09/2001	3.000%	3	0		
99	Boise	09/1970	09/2001	3.000%	11	0		
100	Boise	09/1970	09/2001	3.000%	3	0		
101	Boise	09/1971	09/2001	3.000%	11	0		
102	Boise	09/1971	09/2001	3.000%	3	0		
103	Boise	09/1972	09/2001	3.000%	11	0		
104	Boise	09/1972	09/2001	3.000%	3	0		
105	Boise	09/1973	09/2001	3.000%	11	0		
106	Boise	09/1973	09/2001	3.000%	3	0		
107	Boise	09/1974	09/2001	3.000%	11	0		
108	Boise	09/1974	09/2001	3.000%	3	0		
109	Boise	09/1975	09/2001	3.000%	11	0		
110	Boise	09/1975	09/2001	3.000%	3	0		
111	Boise	09/1976	09/2001	3.000%	11	0		
112	Boise	09/1976	09/2001	3.000%	3	0		
113	Boise	09/1977	09/2001	3.000%	11	0		
114	Boise	09/1977	09/2001	3.000%	3	0		
115	Boise	09/1978	09/2001	3.000%	11	0		
116	Boise	09/1978	09/2001	3.000%	3	0		
117	Boise	09/1979	09/2001	3.000%	11	0		
118	Boise	09/1979	09/2001	3.000%	3	0		
119	Boise	09/1980	09/2001	3.000%	18	0		
120	Boise	09/1980	09/2001	3.000%	4	0		
121	Boise	09/1981	09/2001	3.000%	8	0		
122	Boise	09/1981	09/2001	3.000%	2	0		
123	Boise	09/1982	09/2001	3.000%	1	0		
124	Boise	09/1982	09/2001	3.000%	1	0		
125	Boise	09/1983	09/2001	3.000%	1	0		
126	Boise	09/1984	09/2001	10.750%	1,325	0		
127	Boise	09/1984	09/2001	10.750%	303	0		
128	Boise	09/1986	09/2001	6.710%	94	0		
129	Boise	09/1988	09/2001	8.500%	3	0		
130	Boise	09/1989	09/2001	9.250%	3,264	0		
131	Boise	09/1990	09/2001	8.875%	38	0		
132	Boise	09/1991	09/2001	8.750%	50	0		
133	Boise	09/1993	09/2001	7.875%	418	0		
134	Boise	09/1994	09/1999	7.125%	7	0		
135	Boise	09/1996	09/2046	6.950%	7	0		
136	Boise	09/1996	09/2046	7.150%	442	442		
137	Boise	09/1996	09/2046	7.150%	656	656		
138	Boise	09/1997	09/2047	6.950%	9	0		
139	Boise	09/1997	09/2047	7.150%	2,266	2,266		
140	Boise	09/2005	09/2055	5.125%	903	903		
141	Boise	09/2006	09/2056	4.500%	15	15		
142	Boise	09/2007	09/2057	5.000%	76	76		
143	Boise	09/2008	09/2058	4.875%	64	64		
144	Boise	09/2009	09/2059	4.375%	2	2		
145	Boise	09/2015	09/2065	3.250%	5	5		
146	Bonneville 2nd Powerhouse	09/1981	09/2031	7.150%	40,964	40,964		
147	Bonneville 2nd Powerhouse	09/1981	09/2031	7.150%	455	455		
148	Bonneville 2nd Powerhouse	09/1982	09/2032	7.150%	203,535	203,535		
149	Bonneville 2nd Powerhouse	09/1982	09/2032	7.150%	2,264	2,264		
150	Bonneville 2nd Powerhouse	09/1983	09/2033	7.150%	62,409	62,409		
151	Bonneville 2nd Powerhouse	09/1983	09/2033	7.150%	694	694		
152	Bonneville 2nd Powerhouse	09/1985	09/2033	7.150%	9,138	9,138		
153	Bonneville 2nd Powerhouse	09/1986	09/2033	7.150%	30,578	30,578		
154	Bonneville 2nd Powerhouse	09/1987	09/2033	7.150%	2,801	2,801		
155	Bonneville 2nd Powerhouse	09/1988	09/2033	7.150%	1,271	1,271		
156	Bonneville 2nd Powerhouse	09/1989	09/2033	7.150%	1,232	1,232		
157	Bonneville 2nd Powerhouse	09/1990	09/2033	7.150%	1,588	1,588		
158	Bonneville 2nd Powerhouse	09/1991	09/2033	8.750%	3,998	0		
159	Bonneville 2nd Powerhouse	09/1991	09/2033	8.750%	26	0		
160	Bonneville 2nd Powerhouse	09/1992	09/2033	8.500%	2,446	0		
161	Bonneville 2nd Powerhouse	09/1993	09/2033	7.875%	3,668	0		
162	Bonneville 2nd Powerhouse	09/1994	09/2044	7.150%	5,700	5,700		
163	Bonneville 2nd Powerhouse	09/1995	09/2045	7.150%	3,791	3,791		
164	Bonneville 2nd Powerhouse	09/1996	09/2046	7.150%	376	376		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
165	Bonneville Dam	09/1938	09/1988	2.500%	11,726	0		
166	Bonneville Dam	09/1938	09/1988	2.500%	130	0		
167	Bonneville Dam	09/1941	09/1991	2.500%	17,589	0		
168	Bonneville Dam	09/1941	09/1991	2.500%	196	0		
169	Bonneville Dam	09/1942	09/1992	2.500%	5,863	0		
170	Bonneville Dam	09/1942	09/1992	2.500%	65	0		
171	Bonneville Dam	09/1943	09/1993	2.500%	17,589	0		
172	Bonneville Dam	09/1943	09/1993	2.500%	196	0		
173	Bonneville Dam	09/1944	09/1994	2.500%	5,860	0		
174	Bonneville Dam	09/1944	09/1994	2.500%	65	0		
175	Bonneville Dam	09/1945	09/1994	2.500%	82	0		
176	Bonneville Dam	09/1945	09/1994	2.500%	1	0		
177	Bonneville Dam	09/1946	09/1994	2.500%	81	0		
178	Bonneville Dam	09/1946	09/1994	2.500%	1	0		
179	Bonneville Dam	09/1947	09/1994	2.500%	82	0		
180	Bonneville Dam	09/1947	09/1994	2.500%	1	0		
181	Bonneville Dam	09/1948	09/1994	2.500%	81	0		
182	Bonneville Dam	09/1948	09/1994	2.500%	1	0		
183	Bonneville Dam	09/1949	09/1994	2.500%	82	0		
184	Bonneville Dam	09/1949	09/1994	2.500%	1	0		
185	Bonneville Dam	09/1950	09/1994	2.500%	81	0		
186	Bonneville Dam	09/1950	09/1994	2.500%	11	0		
187	Bonneville Dam	09/1951	09/1994	2.500%	81	0		
188	Bonneville Dam	09/1951	09/1994	2.500%	11	0		
189	Bonneville Dam	09/1952	09/1994	2.500%	82	0		
190	Bonneville Dam	09/1952	09/1994	2.500%	1	0		
191	Bonneville Dam	09/1953	09/1994	2.500%	81	0		
192	Bonneville Dam	09/1953	09/1994	2.500%	1	0		
193	Bonneville Dam	09/1954	09/1994	2.500%	82	0		
194	Bonneville Dam	09/1954	09/1994	2.500%	1	0		
195	Bonneville Dam	09/1955	09/1994	2.500%	81	0		
196	Bonneville Dam	09/1955	09/1994	2.500%	1	0		
197	Bonneville Dam	09/1956	09/1994	2.500%	81	0		
198	Bonneville Dam	09/1956	09/1994	2.500%	1	0		
199	Bonneville Dam	09/1957	09/1994	2.500%	82	0		
200	Bonneville Dam	09/1957	09/1994	2.500%	1	0		
201	Bonneville Dam	09/1958	09/1994	2.500%	81	0		
202	Bonneville Dam	09/1958	09/1994	2.500%	1	0		
203	Bonneville Dam	09/1959	09/1994	2.500%	82	0		
204	Bonneville Dam	09/1959	09/1994	2.500%	1	0		
205	Bonneville Dam	09/1960	09/1994	2.500%	81	0		
206	Bonneville Dam	09/1960	09/1994	2.500%	1	0		
207	Bonneville Dam	09/1961	09/1994	2.500%	81	0		
208	Bonneville Dam	09/1961	09/1994	2.500%	1	0		
209	Bonneville Dam	09/1962	09/1994	2.500%	82	0		
210	Bonneville Dam	09/1962	09/1994	2.500%	1	0		
211	Bonneville Dam	09/1963	09/1994	2.500%	81	0		
212	Bonneville Dam	09/1963	09/1994	2.500%	1	0		
213	Bonneville Dam	09/1964	09/1994	2.500%	82	0		
214	Bonneville Dam	09/1964	09/1994	2.500%	1	0		
215	Bonneville Dam	09/1965	09/1994	2.500%	81	0		
216	Bonneville Dam	09/1965	09/1994	2.500%	1	0		
217	Bonneville Dam	09/1966	09/1994	2.500%	81	0		
218	Bonneville Dam	09/1966	09/1994	2.500%	1	0		
219	Bonneville Dam	09/1967	09/1994	2.500%	82	0		
220	Bonneville Dam	09/1967	09/1994	2.500%	1	0		
221	Bonneville Dam	09/1968	09/1994	2.500%	81	0		
222	Bonneville Dam	09/1968	09/1994	2.500%	1	0		
223	Bonneville Dam	09/1969	09/1994	2.500%	82	0		
224	Bonneville Dam	09/1969	09/1994	2.500%	1	0		
225	Bonneville Dam	09/1970	09/1994	2.500%	81	0		
226	Bonneville Dam	09/1970	09/1994	2.500%	1	0		
227	Bonneville Dam	09/1971	09/1994	2.500%	81	0		
228	Bonneville Dam	09/1971	09/1994	2.500%	1	0		
229	Bonneville Dam	09/1972	09/1994	2.500%	82	0		
230	Bonneville Dam	09/1972	09/1994	2.500%	1	0		
231	Bonneville Dam	09/1973	09/1994	2.500%	81	0		
232	Bonneville Dam	09/1973	09/1994	2.500%	1	0		
233	Bonneville Dam	09/1974	09/1994	2.500%	82	0		
234	Bonneville Dam	09/1974	09/1994	2.500%	1	0		
235	Bonneville Dam	09/1975	09/1994	2.500%	81	0		
236	Bonneville Dam	09/1975	09/1994	2.500%	1	0		
237	Bonneville Dam	09/1976	09/1994	2.500%	81	0		
238	Bonneville Dam	09/1976	09/1994	2.500%	1	0		
239	Bonneville Dam	09/1977	09/1994	2.500%	82	0		
240	Bonneville Dam	09/1977	09/1994	2.500%	1	0		
241	Bonneville Dam	09/1977	09/2027	7.150%	15,670	15,670		
242	Bonneville Dam	09/1978	09/1994	2.500%	81	0		
243	Bonneville Dam	09/1978	09/1994	2.500%	1	0		
244	Bonneville Dam	09/1979	09/1994	2.500%	82	0		
245	Bonneville Dam	09/1979	09/1994	2.500%	1	0		
246	Bonneville Dam	09/1980	09/1994	2.500%	81	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
247	Bonneville Dam	09/1980	09/1994	2.500%	1	0		
248	Bonneville Dam	09/1981	09/1994	2.500%	81	0		
249	Bonneville Dam	09/1981	09/1994	2.500%	1	0		
250	Bonneville Dam	09/1982	09/1994	2.500%	82	0		
251	Bonneville Dam	09/1982	09/1994	2.500%	2	0		
252	Bonneville Dam	09/1983	09/1994	2.500%	81	0		
253	Bonneville Dam	09/1983	09/1994	2.500%	1	0		
254	Bonneville Dam	09/1984	09/1994	10.750%	873	0		
255	Bonneville Dam	09/1984	09/1994	10.750%	10	0		
256	Bonneville Dam	09/1985	09/1994	2.500%	119	0		
257	Bonneville Dam	09/1986	09/1994	2.500%	555	0		
258	Bonneville Dam	09/1986	09/1994	11.375%	454	0		
259	Bonneville Dam	09/1987	09/1994	2.500%	260	0		
260	Bonneville Dam	09/1987	09/1994	8.875%	26	0		
261	Bonneville Dam	09/1988	09/1994	8.500%	4,199	0		
262	Bonneville Dam	09/1988	09/1994	8.500%	10	0		
263	Bonneville Dam	09/1989	09/1994	9.250%	877	0		
264	Bonneville Dam	09/1990	09/1994	8.875%	519	0		
265	Bonneville Dam	09/1990	09/1994	8.875%	651	0		
266	Bonneville Dam	09/1991	09/1994	8.750%	35	0		
267	Bonneville Dam	09/1991	09/1994	8.750%	3,193	0		
268	Bonneville Dam	09/1992	09/1994	8.500%	99	0		
269	Bonneville Dam	09/1992	09/1994	8.500%	25	0		
270	Bonneville Dam	09/1993	09/2018	7.880%	5,011	0		
271	Bonneville Dam	09/1994	09/2029	7.125%	536	0		
272	Bonneville Dam	09/1995	09/2000	7.330%	8	0		
273	Bonneville Dam	09/1995	09/2010	7.090%	25	0		
274	Bonneville Dam	09/1995	09/2020	7.250%	20	0		
275	Bonneville Dam	09/1995	09/2020	7.250%	22	0		
276	Bonneville Dam	09/1995	09/2030	7.860%	53	0		
277	Bonneville Dam	09/1995	09/2035	7.860%	98	0		
278	Bonneville Dam	09/1995	09/2045	7.150%	243	243		
279	Bonneville Dam	09/1995	09/2045	7.150%	410	410		
280	Bonneville Dam	09/1995	09/2045	7.150%	440	440		
281	Bonneville Dam	09/1995	09/2045	7.860%	374	0		
282	Bonneville Dam	09/1996	09/2016	7.290%	834	0		
283	Bonneville Dam	09/1996	09/2031	7.150%	22	22		
284	Bonneville Dam	09/1996	09/2046	7.150%	18	18		
285	Bonneville Dam	09/1996	09/2046	7.150%	18	18		
286	Bonneville Dam	09/1996	09/2046	7.150%	80	80		
287	Bonneville Dam	09/1996	09/2046	7.150%	109	109		
288	Bonneville Dam	09/1996	09/2046	7.150%	142	142		
289	Bonneville Dam	09/1996	09/2046	7.150%	223	223		
290	Bonneville Dam	09/1996	09/2046	7.150%	751	751		
291	Bonneville Dam	09/1996	09/2046	7.150%	1,322	1,322		
292	Bonneville Dam	09/1997	09/2022	7.230%	122	0		
293	Bonneville Dam	09/1997	09/2032	7.150%	518	518		
294	Bonneville Dam	09/1997	09/2047	7.150%	161	161		
295	Bonneville Dam	09/1999	09/2049	5.375%	19,368	19,368		
296	Bonneville Dam	09/2000	09/2050	6.125%	24,446	24,446		
297	Bonneville Dam	09/2001	09/2051	5.875%	2,530	2,530		
298	Bonneville Dam	09/2002	09/2052	5.500%	448	448		
299	Bonneville Dam	09/2003	09/2053	5.125%	4,581	4,581		
300	Bonneville Dam	09/2004	09/2054	5.375%	26,741	26,741		
301	Bonneville Dam	09/2005	09/2055	5.125%	19,725	19,725		
302	Bonneville Dam	09/2006	09/2056	4.500%	2,628	2,628		
303	Bonneville Dam	09/2007	09/2057	5.000%	1,124	1,124		
304	Bonneville Dam	09/2008	09/2058	4.875%	14,609	14,609		
305	Bonneville Dam	09/2009	09/2059	4.375%	2,744	2,744		
306	Bonneville Dam	09/2010	09/2060	4.250%	1,425	1,425		
307	Bonneville Dam	09/2011	09/2061	3.750%	10,962	10,962		
308	Bonneville Dam	09/2013	09/2063	2.875%	268	268		
309	Bonneville Dam	09/2014	09/2064	3.875%				
310	Bonneville Dam	09/2015	09/2065	3.250%	102	102		
311	Chief Joseph	09/1955	09/2005	6.910%	29,164	0		
312	Chief Joseph	09/1956	09/2006	6.950%	13,643	0		
313	Chief Joseph	09/1957	09/2007	6.980%	39,586	0		
314	Chief Joseph	09/1958	09/2008	7.020%	31,901	0		
315	Chief Joseph	09/1959	09/2008	7.020%	223	0		
316	Chief Joseph	09/1960	09/2008	7.020%	223	0		
317	Chief Joseph	09/1961	09/2008	7.020%	223	0		
318	Chief Joseph	09/1962	09/2008	7.020%	223	0		
319	Chief Joseph	09/1963	09/2008	7.020%	224	0		
320	Chief Joseph	09/1964	09/2008	7.020%	223	0		
321	Chief Joseph	09/1965	09/2008	7.020%	223	0		
322	Chief Joseph	09/1966	09/2008	7.020%	223	0		
323	Chief Joseph	09/1967	09/2008	7.020%	223	0		
324	Chief Joseph	09/1968	09/2008	7.020%	224	0		
325	Chief Joseph	09/1969	09/2008	7.020%	223	0		
326	Chief Joseph	09/1970	09/2008	7.020%	223	0		
327	Chief Joseph	09/1971	09/2008	7.020%	223	0		
328	Chief Joseph	09/1972	09/2008	7.020%	223	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
329	Chief Joseph	09/1973	09/2008	7.020%	224	0		
330	Chief Joseph	09/1974	09/2008	7.020%	223	0		
331	Chief Joseph	09/1975	09/2008	7.020%	223	0		
332	Chief Joseph	09/1976	09/2008	7.020%	223	0		
333	Chief Joseph	09/1977	09/2008	7.020%	223	0		
334	Chief Joseph	09/1977	09/2027	7.150%	30,512	30,512		
335	Chief Joseph	09/1978	09/2008	7.020%	224	0		
336	Chief Joseph	09/1978	09/2028	7.150%	75,669	75,669		
337	Chief Joseph	09/1979	09/2008	7.020%	223	0		
338	Chief Joseph	09/1979	09/2029	7.150%	60,079	60,079		
339	Chief Joseph	09/1980	09/2008	7.020%	223	0		
340	Chief Joseph	09/1981	09/2008	7.020%	223	0		
341	Chief Joseph	09/1982	09/2008	7.020%	223	0		
342	Chief Joseph	09/1983	09/2008	7.020%	224	0		
343	Chief Joseph	09/1984	09/2008	10.750%	909	0		
344	Chief Joseph	09/1985	09/2008	7.020%	46	0		
345	Chief Joseph	09/1985	09/2029	7.150%	16,372	16,372		
346	Chief Joseph	09/1986	09/2029	7.150%	5,363	5,363		
347	Chief Joseph	09/1987	09/2008	8.875%	104	0		
348	Chief Joseph	09/1987	09/2029	7.150%	3,036	3,036		
349	Chief Joseph	09/1988	09/2029	7.150%	2,722	2,722		
350	Chief Joseph	09/1989	09/2008	9.250%	327	0		
351	Chief Joseph	09/1989	09/2029	7.150%	2,227	2,227		
352	Chief Joseph	09/1990	09/2008	8.875%	1,024	0		
353	Chief Joseph	09/1990	09/2029	7.150%	4,505	4,505		
354	Chief Joseph	09/1991	09/2008	8.750%	34	0		
355	Chief Joseph	09/1991	09/2008	8.750%	293	0		
356	Chief Joseph	09/1991	09/2029	8.750%	3,840	0		
357	Chief Joseph	09/1992	09/2008	8.500%	142	0		
358	Chief Joseph	09/1992	09/2008	8.500%	717	0		
359	Chief Joseph	09/1992	09/2029	8.500%	2,032	0		
360	Chief Joseph	09/1993	09/2008	7.875%	42	0		
361	Chief Joseph	09/1993	09/2008	7.875%	794	0		
362	Chief Joseph	09/1993	09/2029	7.875%	1,360	0		
363	Chief Joseph	09/1994	09/2029	7.125%	129	0		
364	Chief Joseph	09/1994	09/2029	7.125%	65	0		
365	Chief Joseph	09/1994	09/2044	7.150%	4,280	4,017		
366	Chief Joseph	09/1995	09/2010	7.090%	15	0		
367	Chief Joseph	09/1995	09/2045	7.150%	147	147		
368	Chief Joseph	09/1995	09/2045	7.150%	562	562		
369	Chief Joseph	09/1995	09/2045	7.150%	712	712		
370	Chief Joseph	09/1995	09/2045	7.150%	784	784		
371	Chief Joseph	09/1996	09/2031	7.150%	27	27		
372	Chief Joseph	09/1996	09/2046	7.150%	3	3		
373	Chief Joseph	09/1996	09/2046	7.150%	4	4		
374	Chief Joseph	09/1996	09/2046	7.150%	355	355		
375	Chief Joseph	09/1996	09/2046	7.150%	729	729		
376	Chief Joseph	09/1997	09/2032	7.150%	166	166		
377	Chief Joseph	09/1997	09/2047	7.150%	657	657		
378	Chief Joseph	09/2001	09/2051	5.875%	345	345		
379	Chief Joseph	09/2002	09/2052	5.500%	2	2		
380	Chief Joseph	09/2003	09/2053	5.125%	992	992		
381	Chief Joseph	09/2008	09/2058	4.875%	3,500	3,500		
382	Chief Joseph	09/2009	09/2059	4.375%	24,727	24,727		
383	Chief Joseph	09/2011	09/2061	3.750%	4	4		
384	Chief Joseph	09/2012	09/2062	3.375%	28	28		
385	Chief Joseph	09/2013	09/2063	2.875%	10	10		
386	Columbia Basin	09/1941	09/1991	3.000%	10,919	0		
387	Columbia Basin	09/1941	09/1991	3.000%	1,505	0		
388	Columbia Basin	09/1942	09/1992	3.000%	16,165	0		
389	Columbia Basin	09/1942	09/1992	3.000%	3,011	0		
390	Columbia Basin	09/1943	09/1993	3.000%	8,083	0		
391	Columbia Basin	09/1943	09/1993	3.000%	1,505	0		
392	Columbia Basin	09/1944	09/1994	3.000%	16,165	0		
393	Columbia Basin	09/1944	09/1994	3.000%	3,011	0		
394	Columbia Basin	09/1948	09/1998	3.000%	24,247	0		
395	Columbia Basin	09/1948	09/1998	3.000%	4,516	0		
396	Columbia Basin	09/1949	09/1999	3.000%	24,247	0		
397	Columbia Basin	09/1949	09/1999	3.000%	4,516	0		
398	Columbia Basin	09/1950	09/2000	3.000%	16,165	0		
399	Columbia Basin	09/1950	09/2000	3.000%	3,011	0		
400	Columbia Basin	09/1951	09/2001	6.710%	28,255	0		
401	Columbia Basin	09/1951	09/2001	6.710%	5,790	0		
402	Columbia Basin	09/1952	09/2001	6.710%	258	0		
403	Columbia Basin	09/1952	09/2001	6.710%	48	0		
404	Columbia Basin	09/1953	09/2001	6.710%	258	0		
405	Columbia Basin	09/1953	09/2001	6.710%	48	0		
406	Columbia Basin	09/1954	09/2001	6.710%	258	0		
407	Columbia Basin	09/1954	09/2001	6.710%	48	0		
408	Columbia Basin	09/1955	09/2001	6.710%	258	0		
409	Columbia Basin	09/1955	09/2001	6.710%	48	0		
410	Columbia Basin	09/1956	09/2001	6.710%	259	0		

TABLE 13A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
411	Columbia Basin	09/1956	09/2001	6.710%	48	0		
412	Columbia Basin	09/1957	09/2001	6.710%	258	0		
413	Columbia Basin	09/1957	09/2001	6.710%	48	0		
414	Columbia Basin	09/1958	09/2001	6.710%	258	0		
415	Columbia Basin	09/1958	09/2001	6.710%	48	0		
416	Columbia Basin	09/1959	09/2001	6.710%	258	0		
417	Columbia Basin	09/1959	09/2001	6.710%	48	0		
418	Columbia Basin	09/1960	09/2001	6.710%	258	0		
419	Columbia Basin	09/1960	09/2001	6.710%	48	0		
420	Columbia Basin	09/1961	09/2001	6.710%	259	0		
421	Columbia Basin	09/1961	09/2001	6.710%	48	0		
422	Columbia Basin	09/1962	09/2001	6.710%	258	0		
423	Columbia Basin	09/1962	09/2001	6.710%	48	0		
424	Columbia Basin	09/1963	09/2001	6.710%	258	0		
425	Columbia Basin	09/1963	09/2001	6.710%	48	0		
426	Columbia Basin	09/1964	09/2001	6.710%	258	0		
427	Columbia Basin	09/1964	09/2001	6.710%	48	0		
428	Columbia Basin	09/1965	09/2001	6.710%	258	0		
429	Columbia Basin	09/1965	09/2001	6.710%	48	0		
430	Columbia Basin	09/1966	09/2001	6.710%	259	0		
431	Columbia Basin	09/1966	09/2001	6.710%	48	0		
432	Columbia Basin	09/1967	09/2001	6.710%	258	0		
433	Columbia Basin	09/1967	09/2001	6.710%	48	0		
434	Columbia Basin	09/1967	09/2017	7.290%	758	0		
435	Columbia Basin	09/1968	09/2001	6.710%	258	0		
436	Columbia Basin	09/1968	09/2001	6.710%	48	0		
437	Columbia Basin	09/1969	09/2001	6.710%	258	0		
438	Columbia Basin	09/1969	09/2001	6.710%	48	0		
439	Columbia Basin	09/1970	09/2001	6.710%	258	0		
440	Columbia Basin	09/1970	09/2001	6.710%	48	0		
441	Columbia Basin	09/1971	09/2001	6.710%	259	0		
442	Columbia Basin	09/1971	09/2001	6.710%	48	0		
443	Columbia Basin	09/1972	09/2001	6.710%	258	0		
444	Columbia Basin	09/1972	09/2001	6.710%	48	0		
445	Columbia Basin	09/1973	09/2001	6.710%	258	0		
446	Columbia Basin	09/1973	09/2001	6.710%	48	0		
447	Columbia Basin	09/1974	09/2001	6.710%	258	0		
448	Columbia Basin	09/1974	09/2001	6.710%	48	0		
449	Columbia Basin	09/1975	09/2001	6.710%	258	0		
450	Columbia Basin	09/1975	09/2001	6.710%	48	0		
451	Columbia Basin	09/1976	09/2001	6.710%	259	0		
452	Columbia Basin	09/1976	09/2001	6.710%	48	0		
453	Columbia Basin	09/1977	09/2001	6.710%	258	0		
454	Columbia Basin	09/1977	09/2001	6.710%	48	0		
455	Columbia Basin	09/1978	09/2001	6.710%	258	0		
456	Columbia Basin	09/1978	09/2001	6.710%	48	0		
457	Columbia Basin	09/1979	09/2001	6.710%	258	0		
458	Columbia Basin	09/1979	09/2001	6.710%	48	0		
459	Columbia Basin	09/1980	09/2001	6.710%	258	0		
460	Columbia Basin	09/1980	09/2001	6.710%	48	0		
461	Columbia Basin	09/1981	09/2001	6.710%	259	0		
462	Columbia Basin	09/1981	09/2001	6.710%	48	0		
463	Columbia Basin	09/1982	09/2001	6.710%	258	0		
464	Columbia Basin	09/1982	09/2001	6.710%	48	0		
465	Columbia Basin	09/1983	09/2001	6.710%	258	0		
466	Columbia Basin	09/1983	09/2001	6.710%	48	0		
467	Columbia Basin	09/1984	09/2001	10.750%	7,815	0		
468	Columbia Basin	09/1984	09/2001	10.750%	1,455	0		
469	Columbia Basin	09/1985	09/2001	6.710%	236	0		
470	Columbia Basin	09/1985	09/2001	6.710%	11	0		
471	Columbia Basin	09/1985	09/2001	12.375%	7,338	0		
472	Columbia Basin	09/1985	09/2001	12.375%	362	0		
473	Columbia Basin	09/1986	09/2001	6.710%	127	0		
474	Columbia Basin	09/1987	09/2001	6.710%	13	0		
475	Columbia Basin	09/1988	09/2001	8.500%	184	0		
476	Columbia Basin	09/1988	09/2001	8.500%	2	0		
477	Columbia Basin	09/1989	09/2001	9.250%	1,166	0		
478	Columbia Basin	09/1990	09/2001	8.875%	928	0		
479	Columbia Basin	09/1991	09/2001	8.750%	177	0		
480	Columbia Basin	09/1991	09/2001	8.750%	1,661	0		
481	Columbia Basin	09/1992	09/2001	8.500%	445	0		
482	Columbia Basin	09/1992	09/2001	8.500%	652	0		
483	Columbia Basin	09/1993	09/2001	6.710%	792	0		
484	Columbia Basin	09/1995	09/2000	6.620%	25	0		
485	Columbia Basin	09/1995	09/2020	7.250%	206	0		
486	Columbia Basin	09/1995	09/2030	7.150%	25	0		
487	Columbia Basin	09/1995	09/2030	7.860%	270	0		
488	Columbia Basin	09/1995	09/2030	7.860%	321	0		
489	Columbia Basin	09/1995	09/2030	7.860%	323	0		
490	Columbia Basin	09/1995	09/2030	7.860%	20	0		
491	Columbia Basin	09/1995	09/2045	7.150%	287	287		
492	Columbia Basin	09/1995	09/2045	7.150%	2,511	2,453		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
493	Columbia Basin	09/1995	09/2045	7.860%	450	0		
494	Columbia Basin	09/1995	09/2045	7.860%	450	0		
495	Columbia Basin	09/1996	09/2026	7.150%	72	0		
496	Columbia Basin	09/1996	09/2031	7.150%	109	109		
497	Columbia Basin	09/1996	09/2031	7.150%	251	251		
498	Columbia Basin	09/1996	09/2046	7.150%	426	426		
499	Columbia Basin	09/1996	09/2046	7.150%	368	368		
500	Columbia Basin	09/1997	09/2047	7.150%	3,393	3,393		
501	Columbia Basin	09/2001	09/2051	5.875%	69,226	69,226		
502	Columbia Basin	09/2005	09/2055	5.125%	10,963	10,963		
503	Columbia Basin	09/2006	09/2056	4.500%	1,987	1,987		
504	Columbia Basin	09/2007	09/2057	5.000%	929	929		
505	Columbia Basin	09/2008	09/2058	4.875%	835	835		
506	Columbia Basin	09/2009	09/2059	4.375%	1,338	1,338		
507	Columbia Basin	09/2010	09/2060	4.250%	877	877		
508	Columbia Basin	09/2011	09/2061	3.750%	1,723	1,723		
509	Columbia Basin	09/2012	09/2062	3.375%	11	11		
510	Columbia Basin	09/2013	09/2063	2.875%	3,083	3,083		
511	Columbia Basin	09/2014	09/2064	3.875%	19	19		
512	Columbia Basin	09/2015	09/2065	3.250%				
513	Columbia Basin 3rd Powerhouse	09/1975	09/2025	7.160%	47,328	0		
514	Columbia Basin 3rd Powerhouse	09/1975	09/2025	7.160%	8,702	0		
515	Columbia Basin 3rd Powerhouse	09/1976	09/2026	7.150%	41,330	0		
516	Columbia Basin 3rd Powerhouse	09/1976	09/2026	7.150%	8,037	0		
517	Columbia Basin 3rd Powerhouse	09/1977	09/2027	7.150%	42,764	42,764		
518	Columbia Basin 3rd Powerhouse	09/1977	09/2027	7.150%	7,964	7,964		
519	Columbia Basin 3rd Powerhouse	09/1978	09/2028	7.150%	42,399	42,399		
520	Columbia Basin 3rd Powerhouse	09/1978	09/2028	7.150%	7,896	7,896		
521	Columbia Basin 3rd Powerhouse	09/1979	09/2029	7.150%	84,118	84,118		
522	Columbia Basin 3rd Powerhouse	09/1979	09/2029	7.150%	15,666	15,666		
523	Columbia Basin 3rd Powerhouse	09/1983	09/2033	7.150%	712	712		
524	Columbia Basin 3rd Powerhouse	09/1983	09/2033	7.150%	13,003	13,003		
525	Columbia Basin 3rd Powerhouse	09/1984	09/2033	7.150%	16,965	16,965		
526	Columbia Basin 3rd Powerhouse	09/1984	09/2033	7.150%	13,192	13,192		
527	Columbia Basin 3rd Powerhouse	09/1984	09/2033	7.150%	3,160	3,160		
528	Columbia Basin 3rd Powerhouse	09/1985	09/2033	7.150%	2,060	2,060		
529	Columbia Basin 3rd Powerhouse	09/1985	09/2033	7.150%	41,772	41,772		
530	Columbia Basin 3rd Powerhouse	09/1985	09/2033	7.150%	107	107		
531	Columbia Basin 3rd Powerhouse	09/1986	09/2033	7.150%	1,851	1,851		
532	Columbia Basin 3rd Powerhouse	09/1986	09/2033	7.150%	15,538	15,538		
533	Columbia Basin 3rd Powerhouse	09/1987	09/2033	7.150%	1,730	1,730		
534	Columbia Basin 3rd Powerhouse	09/1987	09/2033	7.150%	14,439	14,439		
535	Columbia Basin 3rd Powerhouse	09/1988	09/2033	7.150%	2,294	2,294		
536	Columbia Basin 3rd Powerhouse	09/1988	09/2033	7.150%	4,351	4,351		
537	Columbia Basin 3rd Powerhouse	09/1989	09/2033	7.150%	10,902	10,902		
538	Columbia Basin 3rd Powerhouse	09/1990	09/2033	7.150%	6,383	6,383		
539	Columbia Basin 3rd Powerhouse	09/1994	09/2044	7.150%	12,631	12,631		
540	Columbia River Fish Mitigation	09/1991	09/2041	8.500%	3,969	0		
541	Columbia River Fish Mitigation	09/1992	09/2042	8.500%	874	0		
542	Columbia River Fish Mitigation	09/1993	09/2043	8.500%	85,846	0		
543	Columbia River Fish Mitigation	09/1994	09/2044	8.500%	39,454	0		
544	Columbia River Fish Mitigation	09/1995	09/2045	7.150%	43,343	39,282		
545	Columbia River Fish Mitigation	09/1996	09/2046	7.150%	2,431	2,431		
546	Columbia River Fish Mitigation	09/1999	09/2049	5.375%	14,115	14,115		
547	Columbia River Fish Mitigation	09/2000	09/2050	6.125%	47,006	47,006		
548	Columbia River Fish Mitigation	09/2001	09/2051	5.875%	6,168	6,168		
549	Columbia River Fish Mitigation	09/2002	09/2052	5.500%	8,797	8,797		
550	Columbia River Fish Mitigation	09/2003	09/2053	5.125%	68,440	68,440		
551	Columbia River Fish Mitigation	09/2004	09/2054	5.375%	60,581	60,581		
552	Columbia River Fish Mitigation	09/2005	09/2055	5.125%	52,039	52,039		
553	Columbia River Fish Mitigation	09/2006	09/2056	4.500%	366,395	366,395		
554	Columbia River Fish Mitigation	09/2007	09/2057	5.000%	53,525	53,525		
555	Columbia River Fish Mitigation	09/2008	09/2058	4.875%	36,554	36,554		
556	Columbia River Fish Mitigation	09/2009	09/2059	4.375%	103,203	103,203		
557	Columbia River Fish Mitigation	09/2010	09/2060	4.250%	56,832	56,832		
558	Columbia River Fish Mitigation	09/2011	09/2061	3.750%	106,014	106,014		
559	Columbia River Fish Mitigation	09/2012	09/2062	3.375%	101,616	101,616		
560	Columbia River Fish Mitigation	09/2013	09/2063	2.875%	95,274	95,274		
561	Columbia River Fish Mitigation	09/2014	09/2064	3.875%	110,071	110,071		
562	Columbia River Fish Mitigation	09/2015	09/2065	3.250%	64,288	64,288		
563	Cougar	09/1964	09/2014	7.230%	10,414	0		
564	Cougar	09/1965	09/2014	7.230%	20	0		
565	Cougar	09/1966	09/2014	7.230%	20	0		
566	Cougar	09/1967	09/2014	7.230%	20	0		
567	Cougar	09/1968	09/2014	7.230%	20	0		
568	Cougar	09/1969	09/2014	7.230%	20	0		
569	Cougar	09/1970	09/2014	7.230%	20	0		
570	Cougar	09/1971	09/2014	7.230%	20	0		
571	Cougar	09/1972	09/2014	7.230%	20	0		
572	Cougar	09/1973	09/2014	7.230%	20	0		
573	Cougar	09/1974	09/2014	7.230%	19	0		
574	Cougar	09/1975	09/2014	7.230%	20	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
575	Cougar	09/1976	09/2014	7.230%	20	0		
576	Cougar	09/1977	09/2014	7.230%	20	0		
577	Cougar	09/1978	09/2014	7.230%	20	0		
578	Cougar	09/1979	09/2014	7.230%	20	0		
579	Cougar	09/1980	09/2014	7.230%	20	0		
580	Cougar	09/1981	09/2014	7.230%	20	0		
581	Cougar	09/1982	09/2014	7.230%	20	0		
582	Cougar	09/1983	09/2014	7.230%	20	0		
583	Cougar	09/1984	09/2014	10.750%	1	0		
584	Cougar	09/1985	09/2014	7.230%	1	0		
585	Cougar	09/1986	09/2014	7.230%	104	0		
586	Cougar	09/1986	09/2014	11.375%	55	0		
587	Cougar	09/1987	09/2014	7.230%	45	0		
588	Cougar	09/1988	09/2014	8.500%	2	0		
589	Cougar	09/1989	09/2014	9.250%	6	0		
590	Cougar	09/1990	09/2014	8.875%	10	0		
591	Cougar	09/1991	09/2014	8.750%	1,015	0		
592	Cougar	09/1991	09/2014	8.750%	1	0		
593	Cougar	09/1992	09/2014	8.500%	2	0		
594	Cougar	09/1993	09/2014	7.875%	539	0		
595	Cougar	09/1994	09/2019	7.125%	31	0		
596	Cougar	09/1995	09/2000	7.330%	3	0		
597	Cougar	09/1997	09/2047	7.150%	26	26		
598	Cougar	09/2004	09/2054	5.375%	3,622	3,622		
599	Cougar	09/2005	09/2055	5.125%	8,130	8,130		
600	Cougar	09/2006	09/2056	4.500%	109	109		
601	Cougar	09/2007	09/2057	5.000%	120	120		
602	Cougar	09/2009	09/2059	4.375%	121	121		
603	Cougar	09/2010	09/2060	4.250%	59	59		
604	Cougar	09/2011	09/2061	3.750%	282	282		
605	Cougar	09/2012	09/2062	3.375%	139	139		
606	Cougar	09/2013	09/2063	2.875%	4,088	4,088		
607	Cougar	09/2014	09/2064	3.875%	12	12		
608	Detroit Lake/Big Cliff	09/1953	09/2003	6.840%	12,533	0		
609	Detroit Lake/Big Cliff	09/1954	09/2004	6.880%	20,162	0		
610	Detroit Lake/Big Cliff	09/1955	09/2004	6.880%	18	0		
611	Detroit Lake/Big Cliff	09/1956	09/2004	6.880%	19	0		
612	Detroit Lake/Big Cliff	09/1957	09/2004	6.880%	18	0		
613	Detroit Lake/Big Cliff	09/1958	09/2004	6.880%	19	0		
614	Detroit Lake/Big Cliff	09/1959	09/2004	6.880%	18	0		
615	Detroit Lake/Big Cliff	09/1960	09/2004	6.880%	19	0		
616	Detroit Lake/Big Cliff	09/1961	09/2004	6.880%	18	0		
617	Detroit Lake/Big Cliff	09/1962	09/2004	6.880%	19	0		
618	Detroit Lake/Big Cliff	09/1963	09/2004	6.880%	18	0		
619	Detroit Lake/Big Cliff	09/1964	09/2004	6.880%	19	0		
620	Detroit Lake/Big Cliff	09/1965	09/2004	6.880%	18	0		
621	Detroit Lake/Big Cliff	09/1966	09/2004	6.880%	19	0		
622	Detroit Lake/Big Cliff	09/1967	09/2004	6.880%	18	0		
623	Detroit Lake/Big Cliff	09/1968	09/2004	6.880%	19	0		
624	Detroit Lake/Big Cliff	09/1969	09/2004	6.880%	18	0		
625	Detroit Lake/Big Cliff	09/1970	09/2004	6.880%	19	0		
626	Detroit Lake/Big Cliff	09/1971	09/2004	6.880%	18	0		
627	Detroit Lake/Big Cliff	09/1972	09/2004	6.880%	19	0		
628	Detroit Lake/Big Cliff	09/1973	09/2004	6.880%	18	0		
629	Detroit Lake/Big Cliff	09/1974	09/2004	6.880%	19	0		
630	Detroit Lake/Big Cliff	09/1975	09/2004	6.880%	18	0		
631	Detroit Lake/Big Cliff	09/1976	09/2004	6.880%	19	0		
632	Detroit Lake/Big Cliff	09/1977	09/2004	6.880%	18	0		
633	Detroit Lake/Big Cliff	09/1978	09/2004	6.880%	19	0		
634	Detroit Lake/Big Cliff	09/1979	09/2004	6.880%	18	0		
635	Detroit Lake/Big Cliff	09/1980	09/2004	6.880%	19	0		
636	Detroit Lake/Big Cliff	09/1981	09/2004	6.880%	18	0		
637	Detroit Lake/Big Cliff	09/1982	09/2004	6.880%	19	0		
638	Detroit Lake/Big Cliff	09/1983	09/2004	6.880%	18	0		
639	Detroit Lake/Big Cliff	09/1984	09/2004	10.750%	21	0		
640	Detroit Lake/Big Cliff	09/1985	09/2004	6.880%	6	0		
641	Detroit Lake/Big Cliff	09/1986	09/2004	11.375%	38	0		
642	Detroit Lake/Big Cliff	09/1987	09/2004	6.880%	3	0		
643	Detroit Lake/Big Cliff	09/1987	09/2004	8.875%	233	0		
644	Detroit Lake/Big Cliff	09/1988	09/2004	8.500%	68	0		
645	Detroit Lake/Big Cliff	09/1989	09/2004	9.250%	26	0		
646	Detroit Lake/Big Cliff	09/1990	09/2004	8.875%	115	0		
647	Detroit Lake/Big Cliff	09/1991	09/2004	8.750%	9	0		
648	Detroit Lake/Big Cliff	09/1991	09/2004	8.750%	20	0		
649	Detroit Lake/Big Cliff	09/1992	09/2004	8.500%	8	0		
650	Detroit Lake/Big Cliff	09/1993	09/2004	7.875%	211	0		
651	Detroit Lake/Big Cliff	09/1994	09/1999	7.125%	7	0		
652	Detroit Lake/Big Cliff	09/1995	09/2000	7.330%	13	0		
653	Detroit Lake/Big Cliff	09/1995	09/2045	7.150%	38	38		
654	Detroit Lake/Big Cliff	09/1996	09/2006	6.950%	24	0		
655	Detroit Lake/Big Cliff	09/2001	09/2051	5.875%	282	282		
656	Detroit Lake/Big Cliff	09/2002	09/2052	5.500%	18	18		

TABLE 13A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
657	Detroit Lake/Big Cliff	09/2003	09/2053	5.125%	223	223		
658	Detroit Lake/Big Cliff	09/2005	09/2055	5.125%	1,031	1,031		
659	Detroit Lake/Big Cliff	09/2013	09/2063	2.875%	528	528		
660	Detroit Lake/Big Cliff	09/2014	09/2064	3.875%	18	18		
661	Dworshak	09/1973	09/2023	7.190%	138,443	0		
662	Dworshak	09/1973	09/2023	7.190%	836	0		
663	Dworshak	09/1974	09/2023	7.190%	515	0		
664	Dworshak	09/1974	09/2023	7.190%	3	0		
665	Dworshak	09/1975	09/2023	7.190%	518	0		
666	Dworshak	09/1975	09/2023	7.190%	3	0		
667	Dworshak	09/1976	09/2023	7.190%	518	0		
668	Dworshak	09/1976	09/2023	7.190%	3	0		
669	Dworshak	09/1977	09/2023	7.190%	518	0		
670	Dworshak	09/1977	09/2023	7.190%	3	0		
671	Dworshak	09/1978	09/2023	7.190%	518	0		
672	Dworshak	09/1978	09/2023	7.190%	3	0		
673	Dworshak	09/1979	09/2023	7.190%	518	0		
674	Dworshak	09/1979	09/2023	7.190%	3	0		
675	Dworshak	09/1980	09/2023	7.190%	518	0		
676	Dworshak	09/1980	09/2023	7.190%	3	0		
677	Dworshak	09/1981	09/2023	7.190%	518	0		
678	Dworshak	09/1981	09/2023	7.190%	3	0		
679	Dworshak	09/1982	09/2023	7.190%	518	0		
680	Dworshak	09/1982	09/2023	7.190%	3	0		
681	Dworshak	09/1983	09/2023	7.190%	523	0		
682	Dworshak	09/1983	09/2023	7.190%	3	0		
683	Dworshak	09/1984	09/2023	10.750%	2,499	0		
684	Dworshak	09/1984	09/2023	10.750%	15	0		
685	Dworshak	09/1985	09/2023	7.190%	1,141	0		
686	Dworshak	09/1986	09/2023	7.190%	197	0		
687	Dworshak	09/1987	09/2023	7.190%	36	0		
688	Dworshak	09/1987	09/2023	8.875%	65	0		
689	Dworshak	09/1988	09/2023	8.500%	61	0		
690	Dworshak	09/1989	09/2023	9.250%	63	0		
691	Dworshak	09/1990	09/2023	8.875%	245	0		
692	Dworshak	09/1990	09/2023	8.875%	24	0		
693	Dworshak	09/1991	09/2023	8.750%	224	0		
694	Dworshak	09/1992	09/2023	2.625%	4	0		
695	Dworshak	09/1992	09/2023	8.500%	28	0		
696	Dworshak	09/1992	09/2023	8.500%	24	0		
697	Dworshak	09/1993	09/2023	7.875%	41	0		
698	Dworshak	09/1993	09/2023	7.875%	1,872	0		
699	Dworshak	09/1994	09/2029	7.125%	1,351	0		
700	Dworshak	09/1994	09/2029	7.125%	964	0		
701	Dworshak	09/1995	09/2020	7.930%	55	0		
702	Dworshak	09/1995	09/2030	7.150%	218	218		
703	Dworshak	09/1995	09/2045	7.150%	1,162	1,162		
704	Dworshak	09/1996	09/2011	7.130%	107	0		
705	Dworshak	09/1996	09/2021	7.230%	26	0		
706	Dworshak	09/1996	09/2021	7.230%	184	0		
707	Dworshak	09/1996	09/2031	7.150%	6	6		
708	Dworshak	09/1996	09/2031	7.150%	203	203		
709	Dworshak	09/1996	09/2046	7.150%	3	3		
710	Dworshak	09/1996	09/2046	7.150%	4	4		
711	Dworshak	09/1996	09/2046	7.150%	46	46		
712	Dworshak	09/1997	09/2047	7.150%	7,588	7,588		
713	Dworshak	09/1999	09/2049	5.375%	630	630		
714	Dworshak	09/2002	09/2052	5.500%	199	199		
715	Dworshak	09/2003	09/2053	5.125%	761	761		
716	Dworshak	09/2005	09/2055	5.125%	713	713		
717	Dworshak	09/2006	09/2056	4.500%	73	73		
718	Dworshak	09/2008	09/2058	4.875%	10	10		
719	Dworshak	09/2009	09/2059	4.375%	2,425	2,425		
720	Dworshak	09/2014	09/2064	3.875%	50	0		
721	Green Peter/Foster	09/1967	09/2017	7.290%	24,445	0		
722	Green Peter/Foster	09/1968	09/2018	7.280%	12,180	0		
723	Green Peter/Foster	09/1969	09/2018	7.280%	39	0		
724	Green Peter/Foster	09/1970	09/2018	7.280%	40	0		
725	Green Peter/Foster	09/1971	09/2018	7.280%	39	0		
726	Green Peter/Foster	09/1972	09/2018	7.280%	39	0		
727	Green Peter/Foster	09/1973	09/2018	7.280%	39	0		
728	Green Peter/Foster	09/1974	09/2018	7.280%	39	0		
729	Green Peter/Foster	09/1975	09/2018	7.280%	39	0		
730	Green Peter/Foster	09/1976	09/2018	7.280%	39	0		
731	Green Peter/Foster	09/1977	09/2018	7.280%	39	0		
732	Green Peter/Foster	09/1978	09/2018	7.280%	39	0		
733	Green Peter/Foster	09/1979	09/2018	7.280%	39	0		
734	Green Peter/Foster	09/1980	09/2018	7.280%	40	0		
735	Green Peter/Foster	09/1981	09/2018	7.280%	39	0		
736	Green Peter/Foster	09/1982	09/2018	7.280%	39	0		
737	Green Peter/Foster	09/1983	09/2018	7.280%	39	0		
738	Green Peter/Foster	09/1984	09/2018	10.750%	15	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
739	Green Peter/Foster	09/1985	09/2018	7.280%	16	0		
740	Green Peter/Foster	09/1986	09/2018	7.280%	3	0		
741	Green Peter/Foster	09/1986	09/2018	11.375%	3	0		
742	Green Peter/Foster	09/1987	09/2018	7.280%	1	0		
743	Green Peter/Foster	09/1987	09/2018	8.875%	2	0		
744	Green Peter/Foster	09/1988	09/2018	8.500%	13	0		
745	Green Peter/Foster	09/1989	09/2018	9.250%	24	0		
746	Green Peter/Foster	09/1990	09/2018	8.875%	5	0		
747	Green Peter/Foster	09/1991	09/2018	8.750%	48	0		
748	Green Peter/Foster	09/1992	09/2018	8.500%	2	0		
749	Green Peter/Foster	09/1993	09/2018	7.875%	41	0		
750	Green Peter/Foster	09/1994	09/1999	7.125%	6	0		
751	Green Peter/Foster	09/1995	09/2000	7.330%	4	0		
752	Green Peter/Foster	09/1995	09/2020	7.250%	11	0		
753	Green Peter/Foster	09/1995	09/2020	7.250%	24	0		
754	Green Peter/Foster	09/1996	09/2046	7.150%	26	26		
755	Green Peter/Foster	09/2001	09/2051	5.875%	200	200		
756	Green Peter/Foster	09/2011	09/2061	3.750%	87	87		
757	Green Peter/Foster	09/2012	09/2062	3.375%	28	28		
758	Green Peter/Foster	09/2014	09/2064	3.875%	385	385		
759	Green Peter/Foster	09/2015	09/2065	3.250%	19	19		
760	Hills Creek	09/1962	09/2012	7.160%	10,353	0		
761	Hills Creek	09/1963	09/2012	7.160%	12	0		
762	Hills Creek	09/1964	09/2012	7.160%	13	0		
763	Hills Creek	09/1965	09/2012	7.160%	13	0		
764	Hills Creek	09/1966	09/2012	7.160%	13	0		
765	Hills Creek	09/1967	09/2012	7.160%	13	0		
766	Hills Creek	09/1968	09/2012	7.160%	13	0		
767	Hills Creek	09/1969	09/2012	7.160%	13	0		
768	Hills Creek	09/1970	09/2012	7.160%	13	0		
769	Hills Creek	09/1971	09/2012	7.160%	13	0		
770	Hills Creek	09/1972	09/2012	7.160%	13	0		
771	Hills Creek	09/1973	09/2012	7.160%	13	0		
772	Hills Creek	09/1974	09/2012	7.160%	13	0		
773	Hills Creek	09/1975	09/2012	7.160%	13	0		
774	Hills Creek	09/1976	09/2012	7.160%	13	0		
775	Hills Creek	09/1977	09/2012	7.160%	13	0		
776	Hills Creek	09/1978	09/2012	7.160%	13	0		
777	Hills Creek	09/1979	09/2012	7.160%	13	0		
778	Hills Creek	09/1980	09/2012	7.160%	13	0		
779	Hills Creek	09/1981	09/2012	7.160%	13	0		
780	Hills Creek	09/1982	09/2012	7.160%	13	0		
781	Hills Creek	09/1983	09/2012	7.160%	13	0		
782	Hills Creek	09/1984	09/2012	10.750%	52	0		
783	Hills Creek	09/1985	09/2012	7.160%	6	0		
784	Hills Creek	09/1987	09/2012	8.875%	3	0		
785	Hills Creek	09/1988	09/2012	8.500%	3	0		
786	Hills Creek	09/1990	09/2012	8.875%	3	0		
787	Hills Creek	09/1991	09/2012	8.750%	17	0		
788	Hills Creek	09/1992	09/2012	8.500%	1	0		
789	Hills Creek	09/1993	09/2012	7.875%	13	0		
790	Hills Creek	09/1996	09/2046	7.150%	28	28		
791	Hills Creek	09/2000	09/2050	6.125%	2,630	2,630		
792	Hills Creek	09/2001	09/2051	5.875%	8	8		
793	Hills Creek	09/2002	09/2052	5.500%	2	2		
794	Hills Creek	09/2005	09/2055	5.125%	46	46		
795	Hills Creek	09/2011	09/2061	3.750%	12	12		
796	Hills Creek	09/2012	09/2062	3.375%	142	142		
797	Hungry Horse Dam	09/1953	09/2003	6.840%	75,076	0		
798	Hungry Horse Dam	09/1953	09/2003	6.840%	2,126	0		
799	Hungry Horse Dam	09/1954	09/2003	6.840%	17	0		
800	Hungry Horse Dam	09/1954	09/2003	6.840%	1	0		
801	Hungry Horse Dam	09/1955	09/2003	6.840%	17	0		
802	Hungry Horse Dam	09/1955	09/2003	6.840%	1	0		
803	Hungry Horse Dam	09/1956	09/2003	6.840%	17	0		
804	Hungry Horse Dam	09/1956	09/2003	6.840%	1	0		
805	Hungry Horse Dam	09/1957	09/2003	6.840%	18	0		
806	Hungry Horse Dam	09/1957	09/2003	6.840%	1	0		
807	Hungry Horse Dam	09/1958	09/2003	6.840%	18	0		
808	Hungry Horse Dam	09/1958	09/2003	6.840%	1	0		
809	Hungry Horse Dam	09/1959	09/2003	6.840%	18	0		
810	Hungry Horse Dam	09/1959	09/2003	6.840%	1	0		
811	Hungry Horse Dam	09/1960	09/2003	6.840%	18	0		
812	Hungry Horse Dam	09/1960	09/2003	6.840%	1	0		
813	Hungry Horse Dam	09/1961	09/2003	6.840%	18	0		
814	Hungry Horse Dam	09/1961	09/2003	6.840%	1	0		
815	Hungry Horse Dam	09/1962	09/2003	6.840%	18	0		
816	Hungry Horse Dam	09/1962	09/2003	6.840%	1	0		
817	Hungry Horse Dam	09/1963	09/2003	6.840%	18	0		
818	Hungry Horse Dam	09/1963	09/2003	6.840%	1	0		
819	Hungry Horse Dam	09/1964	09/2003	6.840%	17	0		
820	Hungry Horse Dam	09/1964	09/2003	6.840%	1	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
821	Hungry Horse Dam	09/1965	09/2003	6.840%	17	0		
822	Hungry Horse Dam	09/1965	09/2003	6.840%	1	0		
823	Hungry Horse Dam	09/1966	09/2003	6.840%	17	0		
824	Hungry Horse Dam	09/1966	09/2003	6.840%	1	0		
825	Hungry Horse Dam	09/1967	09/2003	6.840%	18	0		
826	Hungry Horse Dam	09/1967	09/2003	6.840%	1	0		
827	Hungry Horse Dam	09/1968	09/2003	6.840%	18	0		
828	Hungry Horse Dam	09/1968	09/2003	6.840%	1	0		
829	Hungry Horse Dam	09/1969	09/2003	6.840%	18	0		
830	Hungry Horse Dam	09/1969	09/2003	6.840%	1	0		
831	Hungry Horse Dam	09/1970	09/2003	6.840%	18	0		
832	Hungry Horse Dam	09/1970	09/2003	6.840%	1	0		
833	Hungry Horse Dam	09/1971	09/2003	6.840%	18	0		
834	Hungry Horse Dam	09/1971	09/2003	6.840%	1	0		
835	Hungry Horse Dam	09/1972	09/2003	6.840%	18	0		
836	Hungry Horse Dam	09/1972	09/2003	6.840%	1	0		
837	Hungry Horse Dam	09/1973	09/2003	6.840%	18	0		
838	Hungry Horse Dam	09/1973	09/2003	6.840%	1	0		
839	Hungry Horse Dam	09/1974	09/2003	6.840%	17	0		
840	Hungry Horse Dam	09/1974	09/2003	6.840%	1	0		
841	Hungry Horse Dam	09/1975	09/2003	6.840%	17	0		
842	Hungry Horse Dam	09/1975	09/2003	6.840%	1	0		
843	Hungry Horse Dam	09/1976	09/2003	6.840%	10	0		
844	Hungry Horse Dam	09/1976	09/2003	6.840%	1	0		
845	Hungry Horse Dam	09/1977	09/2003	6.840%	18	0		
846	Hungry Horse Dam	09/1977	09/2003	6.840%	1	0		
847	Hungry Horse Dam	09/1978	09/2003	6.840%	18	0		
848	Hungry Horse Dam	09/1978	09/2003	6.840%	1	0		
849	Hungry Horse Dam	09/1979	09/2003	6.840%	18	0		
850	Hungry Horse Dam	09/1979	09/2003	6.840%	1	0		
851	Hungry Horse Dam	09/1980	09/2003	6.840%	18	0		
852	Hungry Horse Dam	09/1980	09/2003	6.840%	1	0		
853	Hungry Horse Dam	09/1981	09/2003	6.840%	22	0		
854	Hungry Horse Dam	09/1981	09/2003	6.840%	1	0		
855	Hungry Horse Dam	09/1982	09/2003	6.840%	1	0		
856	Hungry Horse Dam	09/1983	09/2003	6.840%	12	0		
857	Hungry Horse Dam	09/1983	09/2003	6.840%	1	0		
858	Hungry Horse Dam	09/1984	09/2003	10.750%	32	0		
859	Hungry Horse Dam	09/1984	09/2003	10.750%	1	0		
860	Hungry Horse Dam	09/1985	09/2003	12.375%	36	0		
861	Hungry Horse Dam	09/1985	09/2003	12.375%	37	0		
862	Hungry Horse Dam	09/1989	09/2003	9.250%	101	0		
863	Hungry Horse Dam	09/1990	09/2003	8.875%	58	0		
864	Hungry Horse Dam	09/1991	09/2003	8.750%	19	0		
865	Hungry Horse Dam	09/1992	09/2003	8.500%	9	0		
866	Hungry Horse Dam	09/1993	09/2003	7.875%	4,136	0		
867	Hungry Horse Dam	09/1993	09/2003	7.875%	2	0		
868	Hungry Horse Dam	09/1994	09/2019	7.125%	56	0		
869	Hungry Horse Dam	09/1995	09/2000	6.620%	156	0		
870	Hungry Horse Dam	09/1995	09/2000	6.620%	84	0		
871	Hungry Horse Dam	09/1995	09/2020	7.930%	450	0		
872	Hungry Horse Dam	09/1995	09/2030	7.150%	536	536		
873	Hungry Horse Dam	09/1995	09/2030	7.150%	1,198	1,195		
874	Hungry Horse Dam	09/1995	09/2045	7.150%	6,190	6,190		
875	Hungry Horse Dam	09/1995	09/2045	7.860%	14,354	0		
876	Hungry Horse Dam	09/1996	09/2046	7.150%	15	15		
877	Hungry Horse Dam	09/1996	09/2046	7.150%	2	2		
878	Hungry Horse Dam	09/1997	09/2007	6.950%	154	0		
879	Hungry Horse Dam	09/1997	09/2047	7.150%	111	111		
880	Hungry Horse Dam	09/2001	09/2051	5.875%	552	552		
881	Hungry Horse Dam	09/2005	09/2055	5.125%	2,951	2,951		
882	Hungry Horse Dam	09/2007	09/2057	5.000%	294	294		
883	Hungry Horse Dam	09/2008	09/2058	4.875%	76	76		
884	Hungry Horse Dam	09/2009	09/2059	4.375%	60	60		
885	Hungry Horse Dam	09/2010	09/2060	4.250%	779	779		
886	Hungry Horse Dam	09/2011	09/2061	3.750%	503	503		
887	Hungry Horse Dam	09/2012	09/2062	3.375%	3	3		
888	Hungry Horse Dam	09/2014	09/2064	3.875%	12	12		
889	Hungry Horse Dam	09/2015	09/2065	3.250%	32	32		
890	Ice Harbor	09/1962	09/2012	7.160%	59,699	0		
891	Ice Harbor	09/1962	09/2012	7.160%	664	0		
892	Ice Harbor	09/1963	09/2012	7.160%	46	0		
893	Ice Harbor	09/1963	09/2012	7.160%	1	0		
894	Ice Harbor	09/1964	09/2012	7.160%	46	0		
895	Ice Harbor	09/1964	09/2012	7.160%	1	0		
896	Ice Harbor	09/1965	09/2012	7.160%	46	0		
897	Ice Harbor	09/1965	09/2012	7.160%	1	0		
898	Ice Harbor	09/1966	09/2012	7.160%	46	0		
899	Ice Harbor	09/1966	09/2012	7.160%	1	0		
900	Ice Harbor	09/1967	09/2012	7.160%	46	0		
901	Ice Harbor	09/1967	09/2012	7.160%	1	0		
902	Ice Harbor	09/1968	09/2012	7.160%	46	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
903	Ice Harbor	09/1968	09/2012	7.160%	1	0		
904	Ice Harbor	09/1969	09/2012	7.160%	46	0		
905	Ice Harbor	09/1969	09/2012	7.160%	1	0		
906	Ice Harbor	09/1970	09/2012	7.160%	46	0		
907	Ice Harbor	09/1970	09/2012	7.160%	1	0		
908	Ice Harbor	09/1971	09/2012	7.160%	46	0		
909	Ice Harbor	09/1971	09/2012	7.160%	1	0		
910	Ice Harbor	09/1972	09/2012	7.160%	46	0		
911	Ice Harbor	09/1972	09/2012	7.160%	1	0		
912	Ice Harbor	09/1973	09/2012	7.160%	46	0		
913	Ice Harbor	09/1973	09/2012	7.160%	1	0		
914	Ice Harbor	09/1974	09/2012	7.160%	46	0		
915	Ice Harbor	09/1974	09/2012	7.160%	1	0		
916	Ice Harbor	09/1975	09/2012	7.160%	46	0		
917	Ice Harbor	09/1975	09/2012	7.160%	1	0		
918	Ice Harbor	09/1976	09/2012	7.160%	46	0		
919	Ice Harbor	09/1976	09/2012	7.160%	1	0		
920	Ice Harbor	09/1976	09/2026	7.150%	20,472	0		
921	Ice Harbor	09/1976	09/2026	7.150%	228	0		
922	Ice Harbor	09/1977	09/2012	7.160%	46	0		
923	Ice Harbor	09/1977	09/2012	7.160%	1	0		
924	Ice Harbor	09/1978	09/2012	7.160%	46	0		
925	Ice Harbor	09/1978	09/2012	7.160%	1	0		
926	Ice Harbor	09/1979	09/2012	7.160%	46	0		
927	Ice Harbor	09/1979	09/2012	7.160%	1	0		
928	Ice Harbor	09/1980	09/2012	7.160%	46	0		
929	Ice Harbor	09/1980	09/2012	7.160%	1	0		
930	Ice Harbor	09/1981	09/2012	7.160%	46	0		
931	Ice Harbor	09/1981	09/2012	7.160%	1	0		
932	Ice Harbor	09/1982	09/2012	7.160%	46	0		
933	Ice Harbor	09/1982	09/2012	7.160%	1	0		
934	Ice Harbor	09/1983	09/2012	7.160%	46	0		
935	Ice Harbor	09/1983	09/2012	7.160%	1	0		
936	Ice Harbor	09/1985	09/2012	7.160%	41	0		
937	Ice Harbor	09/1985	09/2026	7.150%	21	0		
938	Ice Harbor	09/1986	09/2012	7.160%	137	0		
939	Ice Harbor	09/1987	09/2012	7.160%	3	0		
940	Ice Harbor	09/1987	09/2012	8.875%	71	0		
941	Ice Harbor	09/1987	09/2012	8.875%	1	0		
942	Ice Harbor	09/1988	09/2012	8.500%	8	0		
943	Ice Harbor	09/1988	09/2012	8.500%	57	0		
944	Ice Harbor	09/1989	09/2012	9.250%	51	0		
945	Ice Harbor	09/1990	09/2012	8.875%	427	0		
946	Ice Harbor	09/1991	09/2012	8.750%	348	0		
947	Ice Harbor	09/1992	09/2012	8.500%	177	0		
948	Ice Harbor	09/1993	09/2012	7.875%	3,192	0		
949	Ice Harbor	09/1993	09/2012	7.875%	1,645	0		
950	Ice Harbor	09/1994	09/2029	7.125%	328	0		
951	Ice Harbor	09/1994	09/2029	7.125%	520	0		
952	Ice Harbor	09/1995	09/2000	7.330%	2	0		
953	Ice Harbor	09/1995	09/2019	7.270%	84	0		
954	Ice Harbor	09/1995	09/2019	7.270%	171	0		
955	Ice Harbor	09/1995	09/2019	7.270%	849	0		
956	Ice Harbor	09/1996	09/2031	7.150%	78	78		
957	Ice Harbor	09/1996	09/2041	7.150%	371	371		
958	Ice Harbor	09/1997	09/2022	7.230%	66	0		
959	Ice Harbor	09/1997	09/2047	7.150%	67	67		
960	Ice Harbor	09/1999	09/2049	5.375%	5,516	5,516		
961	Ice Harbor	09/2000	09/2050	6.125%	548	548		
962	Ice Harbor	09/2001	09/2051	5.875%	764	764		
963	Ice Harbor	09/2002	09/2052	5.500%	1,014	1,014		
964	Ice Harbor	09/2003	09/2053	5.125%	50	50		
965	Ice Harbor	09/2004	09/2054	5.375%	3,321	3,321		
966	Ice Harbor	09/2008	09/2058	4.875%	14	14		
967	Ice Harbor	09/2009	09/2059	4.375%	2,615	2,615		
968	Ice Harbor	09/2010	09/2060	4.250%	207	207		
969	Ice Harbor	09/2011	09/2061	3.750%	819	819		
970	Ice Harbor	09/2012	09/2062	3.375%	115	115		
971	Ice Harbor	09/2015	09/2065	3.250%	3,175	3,175		
972	John Day	09/1968	09/2018	7.280%	27,254	0		
973	John Day	09/1969	09/2019	7.270%	96,104	0		
974	John Day	09/1970	09/2020	7.250%	23,656	0		
975	John Day	09/1971	09/2021	7.230%	34,974	0		
976	John Day	09/1972	09/2022	7.210%	11,502	0		
977	John Day	09/1984	09/2022	10.750%	3,677	0		
978	John Day	09/1985	09/2022	7.210%	6,490	0		
979	John Day	09/1985	09/2022	12.375%	1,209	0		
980	John Day	09/1986	09/2022	7.210%	3,227	0		
981	John Day	09/1986	09/2022	11.375%	713	0		
982	John Day	09/1987	09/2022	7.210%	706	0		
983	John Day	09/1987	09/2022	8.875%	4,353	0		
984	John Day	09/1988	09/2022	8.500%	332	0		

TABLE 13A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
985	John Day	09/1988	09/2022	8.500%	199	0		
986	John Day	09/1989	09/2022	7.210%	30	0		
987	John Day	09/1989	09/2022	9.250%	377	0		
988	John Day	09/1990	09/2022	7.210%	37	0		
989	John Day	09/1990	09/2022	8.875%	543	0		
990	John Day	09/1991	09/2022	8.750%	13,218	0		
991	John Day	09/1991	09/2022	8.750%	144	0		
992	John Day	09/1992	09/2022	7.210%	19	0		
993	John Day	09/1992	09/2022	8.500%	95	0		
994	John Day	09/1993	09/2022	7.875%	7,810	0		
995	John Day	09/1993	09/2022	7.875%	9,585	0		
996	John Day	09/1994	09/2019	7.125%	14	0		
997	John Day	09/1994	09/2029	7.125%	1,252	0		
998	John Day	09/1995	09/2000	7.330%	2	0		
999	John Day	09/1995	09/2000	7.330%	9	0		
1000	John Day	09/1995	09/2020	7.250%	79	0		
1001	John Day	09/1995	09/2035	7.150%	22	22		
1002	John Day	09/1995	09/2035	7.150%	52	52		
1003	John Day	09/1995	09/2035	7.150%	121	121		
1004	John Day	09/1995	09/2045	7.150%	37	37		
1005	John Day	09/1995	09/2045	7.150%	608	608		
1006	John Day	09/1995	09/2045	7.150%	7,653	7,653		
1007	John Day	09/1996	09/2011	7.130%	237	0		
1008	John Day	09/1996	09/2016	7.290%	1,072	0		
1009	John Day	09/1997	09/2022	7.230%	133	0		
1010	John Day	09/1997	09/2047	7.150%	179	179		
1011	John Day	09/1999	09/2049	5.375%	3,510	3,510		
1012	John Day	09/2000	09/2050	6.125%	2,761	2,761		
1013	John Day	09/2001	09/2051	5.875%	619	619		
1014	John Day	09/2004	09/2054	5.375%	2,830	2,830		
1015	John Day	09/2005	09/2055	5.125%	2,827	2,827		
1016	John Day	09/2006	09/2056	4.500%	601	601		
1017	John Day	09/2007	09/2057	5.000%	233	233		
1018	John Day	09/2009	09/2059	4.375%	1,548	1,548		
1019	John Day	09/2010	09/2060	4.250%	356	356		
1020	John Day	09/2011	09/2061	3.750%	175	175		
1021	John Day	09/2012	09/2062	3.375%	6,161	6,161		
1022	John Day	09/2013	09/2063	2.875%	17	17		
1023	John Day	09/2015	09/2065	3.250%	163	163		
1024	Libby	09/1975	09/2025	7.160%	54,644	0		
1025	Libby	09/1976	09/2026	7.150%	153,432	0		
1026	Libby	09/1977	09/2026	7.150%	1,465	0		
1027	Libby	09/1978	09/2026	7.150%	1,465	0		
1028	Libby	09/1979	09/2026	7.150%	1,465	0		
1029	Libby	09/1980	09/2026	7.150%	1,465	0		
1030	Libby	09/1981	09/2026	7.150%	1,465	0		
1031	Libby	09/1982	09/2026	7.150%	1,465	0		
1032	Libby	09/1983	09/2026	7.150%	1,465	0		
1033	Libby	09/1984	09/2026	10.750%	104	0		
1034	Libby	09/1985	09/2026	7.150%	518	0		
1035	Libby	09/1986	09/2026	7.150%	283	0		
1036	Libby	09/1987	09/2026	7.150%	2	0		
1037	Libby	09/1988	09/2026	8.505%	35	0		
1038	Libby	09/1988	09/2038	7.150%	18,043	14,781		
1039	Libby	09/1989	09/2026	7.150%	1	0		
1040	Libby	09/1989	09/2026	9.250%	131	0		
1041	Libby	09/1990	09/2026	8.875%	11	0		
1042	Libby	09/1991	09/2026	8.750%	134	0		
1043	Libby	09/1992	09/2026	8.500%	100	0		
1044	Libby	09/1992	09/2026	8.500%	70	0		
1045	Libby	09/1993	09/2026	7.875%	600	0		
1046	Libby	09/1994	09/2029	7.125%	215	0		
1047	Libby	09/1994	09/2029	7.150%	286	152		
1048	Libby	09/1995	09/2030	7.150%	15	15		
1049	Libby	09/1995	09/2030	7.150%	41	41		
1050	Libby	09/1995	09/2030	7.150%	94	94		
1051	Libby	09/1997	09/2022	7.230%	432	0		
1052	Libby	09/1997	09/2047	7.150%	660	660		
1053	Libby	09/2001	09/2051	5.875%	5,562	5,562		
1054	Libby	09/2008	09/2058	4.875%	1,567	1,567		
1055	Libby	09/2010	09/2060	4.250%	40	40		
1056	Libby	09/2011	09/2061	3.750%	152	152		
1057	Libby	09/2012	09/2062	3.375%	16	16		
1058	Little Goose	09/1970	09/2020	7.250%	22,326	0		
1059	Little Goose	09/1971	09/2021	7.230%	42,962	0		
1060	Little Goose	09/1972	09/2021	7.230%	28	0		
1061	Little Goose	09/1973	09/2021	7.230%	29	0		
1062	Little Goose	09/1974	09/2021	7.230%	28	0		
1063	Little Goose	09/1975	09/2021	7.230%	29	0		
1064	Little Goose	09/1976	09/2021	7.230%	28	0		
1065	Little Goose	09/1977	09/2021	7.230%	29	0		
1066	Little Goose	09/1978	09/2021	7.230%	28	0		

TABLE 13A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1067	Little Goose	09/1978	09/2028	7.150%	49,578	49,578		
1068	Little Goose	09/1979	09/2021	7.230%	29	0		
1069	Little Goose	09/1980	09/2021	7.230%	28	0		
1070	Little Goose	09/1981	09/2021	7.230%	29	0		
1071	Little Goose	09/1982	09/2021	7.230%	28	0		
1072	Little Goose	09/1983	09/2021	7.230%	29	0		
1073	Little Goose	09/1984	09/2021	10.750%	201	0		
1074	Little Goose	09/1985	09/2021	7.230%	174	0		
1075	Little Goose	09/1985	09/2028	7.150%	47	47		
1076	Little Goose	09/1986	09/2021	7.230%	239	0		
1077	Little Goose	09/1987	09/2021	7.230%	6	0		
1078	Little Goose	09/1987	09/2021	8.875%	72	0		
1079	Little Goose	09/1988	09/2021	8.500%	12	0		
1080	Little Goose	09/1988	09/2021	8.500%	68	0		
1081	Little Goose	09/1989	09/2021	9.250%	77	0		
1082	Little Goose	09/1990	09/2021	8.875%	408	0		
1083	Little Goose	09/1990	09/2021	8.875%	21	0		
1084	Little Goose	09/1991	09/2021	8.750%	266	0		
1085	Little Goose	09/1992	09/2021	8.500%	66	0		
1086	Little Goose	09/1992	09/2021	8.500%	27	0		
1087	Little Goose	09/1993	09/2021	7.875%	276	0		
1088	Little Goose	09/1993	09/2021	7.875%	3,359	0		
1089	Little Goose	09/1994	09/2019	7.125%	37	0		
1090	Little Goose	09/1994	09/2029	7.125%	2,044	0		
1091	Little Goose	09/1995	09/2040	7.150%	17	17		
1092	Little Goose	09/1995	09/2040	7.150%	450	450		
1093	Little Goose	09/1995	09/2040	7.150%	733	733		
1094	Little Goose	09/1996	09/2046	7.150%	10	10		
1095	Little Goose	09/1996	09/2046	7.150%	10	10		
1096	Little Goose	09/1996	09/2046	7.150%	211	211		
1097	Little Goose	09/1996	09/2046	7.150%	241	241		
1098	Little Goose	09/1996	09/2046	7.150%	520	520		
1099	Little Goose	09/1996	09/2046	7.150%	3,909	3,909		
1100	Little Goose	09/1997	09/2047	7.150%	1	1		
1101	Little Goose	09/2001	09/2051	5.875%	4,608	4,608		
1102	Little Goose	09/2002	09/2052	5.500%	27	27		
1103	Little Goose	09/2003	09/2053	5.125%	146	146		
1104	Little Goose	09/2004	09/2054	5.375%	67	67		
1105	Little Goose	09/2008	09/2058	4.875%	13	13		
1106	Little Goose	09/2009	09/2059	4.375%	3,171	3,171		
1107	Little Goose	09/2010	09/2060	4.250%	30	30		
1108	Little Goose	09/2013	09/2063	2.875%	66	66		
1109	Lookout Dam	09/1955	09/2005	6.910%	34,290	0		
1110	Lookout Dam	09/1956	09/2005	6.910%	52	0		
1111	Lookout Dam	09/1957	09/2005	6.910%	51	0		
1112	Lookout Dam	09/1958	09/2005	6.910%	51	0		
1113	Lookout Dam	09/1959	09/2005	6.910%	51	0		
1114	Lookout Dam	09/1960	09/2005	6.910%	51	0		
1115	Lookout Dam	09/1961	09/2005	6.910%	52	0		
1116	Lookout Dam	09/1962	09/2005	6.910%	51	0		
1117	Lookout Dam	09/1963	09/2005	6.910%	51	0		
1118	Lookout Dam	09/1964	09/2005	6.910%	51	0		
1119	Lookout Dam	09/1965	09/2005	6.910%	51	0		
1120	Lookout Dam	09/1966	09/2005	6.910%	51	0		
1121	Lookout Dam	09/1967	09/2005	6.910%	52	0		
1122	Lookout Dam	09/1968	09/2005	6.910%	51	0		
1123	Lookout Dam	09/1969	09/2005	6.910%	51	0		
1124	Lookout Dam	09/1970	09/2005	6.910%	51	0		
1125	Lookout Dam	09/1971	09/2005	6.910%	51	0		
1126	Lookout Dam	09/1972	09/2005	6.910%	51	0		
1127	Lookout Dam	09/1973	09/2005	6.910%	52	0		
1128	Lookout Dam	09/1974	09/2005	6.910%	51	0		
1129	Lookout Dam	09/1975	09/2005	6.910%	51	0		
1130	Lookout Dam	09/1976	09/2005	6.910%	51	0		
1131	Lookout Dam	09/1977	09/2005	6.910%	51	0		
1132	Lookout Dam	09/1978	09/2005	6.910%	51	0		
1133	Lookout Dam	09/1979	09/2005	6.910%	52	0		
1134	Lookout Dam	09/1980	09/2005	6.910%	51	0		
1135	Lookout Dam	09/1981	09/2005	6.910%	51	0		
1136	Lookout Dam	09/1982	09/2005	6.910%	51	0		
1137	Lookout Dam	09/1983	09/2005	6.910%	51	0		
1138	Lookout Dam	09/1984	09/2005	10.750%	185	0		
1139	Lookout Dam	09/1985	09/2005	6.910%	52	0		
1140	Lookout Dam	09/1986	09/2005	6.910%	42	0		
1141	Lookout Dam	09/1987	09/2005	6.910%	9	0		
1142	Lookout Dam	09/1987	09/2005	8.875%	12	0		
1143	Lookout Dam	09/1988	09/2005	8.500%	46	0		
1144	Lookout Dam	09/1988	09/2005	8.500%	17	0		
1145	Lookout Dam	09/1989	09/2005	9.250%	23	0		
1146	Lookout Dam	09/1990	09/2005	8.875%	147	0		
1147	Lookout Dam	09/1990	09/2005	8.875%	4	0		
1148	Lookout Dam	09/1991	09/2005	8.750%	6	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1149	Lookout Dam	09/1991	09/2005	8.750%	50	0		
1150	Lookout Dam	09/1992	09/2005	8.500%	181	0		
1151	Lookout Dam	09/1992	09/2005	8.500%	4	0		
1152	Lookout Dam	09/1993	09/2005	7.875%	18	0		
1153	Lookout Dam	09/1993	09/2005	7.875%	189	0		
1154	Lookout Dam	09/1994	09/2019	7.125%	73	0		
1155	Lookout Dam	09/1995	09/2045	7.150%	80	39		
1156	Lookout Dam	09/1995	09/2045	7.150%	33	33		
1157	Lookout Dam	09/1995	09/2045	7.860%	9	0		
1158	Lookout Dam	09/1995	09/2045	7.860%	15	0		
1159	Lookout Dam	09/1995	09/2045	7.860%	31	0		
1160	Lookout Dam	09/1995	09/2045	7.860%	157	0		
1161	Lookout Dam	09/2000	09/2050	6.125%	5,098	5,098		
1162	Lookout Dam	09/2003	09/2053	5.125%	135	135		
1163	Lookout Dam	09/2005	09/2055	5.125%	7,355	7,355		
1164	Lookout Dam	09/2007	09/2057	5.000%	572	572		
1165	Lookout Dam	09/2011	09/2061	3.750%	17	17		
1166	Lookout Dam	09/2012	09/2062	3.375%	294	294		
1167	Lost Creek	09/1977	09/2027	7.150%	14,293	11,934		
1168	Lost Creek	09/1978	09/2027	7.150%	58	58		
1169	Lost Creek	09/1979	09/2027	7.150%	60	60		
1170	Lost Creek	09/1980	09/2027	7.150%	60	60		
1171	Lost Creek	09/1981	09/2027	7.150%	60	60		
1172	Lost Creek	09/1982	09/2027	7.150%	60	60		
1173	Lost Creek	09/1983	09/2027	7.150%	60	60		
1174	Lost Creek	09/1984	09/2027	10.750%	243	0		
1175	Lost Creek	09/1985	09/2027	7.150%	12	12		
1176	Lost Creek	09/1986	09/2027	7.150%	6	6		
1177	Lost Creek	09/1986	09/2027	11.375%	5	0		
1178	Lost Creek	09/1987	09/2027	7.150%	4	4		
1179	Lost Creek	09/1987	09/2027	8.875%	3	0		
1180	Lost Creek	09/1988	09/2027	8.500%	7	0		
1181	Lost Creek	09/1989	09/2027	9.250%	9	0		
1182	Lost Creek	09/1990	09/2027	8.875%	1	0		
1183	Lost Creek	09/1991	09/2027	8.750%	31	0		
1184	Lost Creek	09/1992	09/2027	8.500%	1	0		
1185	Lost Creek	09/1992	09/2027	8.500%	1	0		
1186	Lost Creek	09/1993	09/2027	7.875%	1	0		
1187	Lost Creek	09/1993	09/2027	7.875%	14	0		
1188	Lost Creek	09/1995	09/2000	7.330%	4	0		
1189	Lost Creek	09/1995	09/2045	7.150%	94	94		
1190	Lost Creek	09/1996	09/2031	7.150%	31	31		
1191	Lost Creek	09/1996	09/2046	7.150%	24	24		
1192	Lost Creek	09/2001	09/2051	5.875%	147	147		
1193	Lost Creek	09/2011	09/2061	3.750%	7	7		
1194	Lower Granite	09/1975	09/2025	7.160%	119,237	0		
1195	Lower Granite	09/1976	09/2025	7.160%	510	0		
1196	Lower Granite	09/1977	09/2025	7.160%	510	0		
1197	Lower Granite	09/1978	09/2025	7.160%	510	0		
1198	Lower Granite	09/1978	09/2028	7.150%	40,611	40,611		
1199	Lower Granite	09/1979	09/2025	7.160%	510	0		
1200	Lower Granite	09/1980	09/2025	7.160%	510	0		
1201	Lower Granite	09/1981	09/2025	7.160%	510	0		
1202	Lower Granite	09/1982	09/2025	7.160%	510	0		
1203	Lower Granite	09/1983	09/2025	7.160%	510	0		
1204	Lower Granite	09/1984	09/2025	10.750%	311	0		
1205	Lower Granite	09/1985	09/2025	7.160%	328	0		
1206	Lower Granite	09/1986	09/2025	7.160%	215	0		
1207	Lower Granite	09/1986	09/2025	11.375%	4	0		
1208	Lower Granite	09/1987	09/2025	7.160%	8	0		
1209	Lower Granite	09/1987	09/2025	8.875%	60	0		
1210	Lower Granite	09/1988	09/2025	8.500%	22	0		
1211	Lower Granite	09/1988	09/2025	8.500%	95	0		
1212	Lower Granite	09/1989	09/2025	9.250%	112	0		
1213	Lower Granite	09/1990	09/2025	8.875%	392	0		
1214	Lower Granite	09/1991	09/2025	8.750%	281	0		
1215	Lower Granite	09/1991	09/2025	8.750%	6	0		
1216	Lower Granite	09/1992	09/2025	8.500%	83	0		
1217	Lower Granite	09/1992	09/2025	8.500%	121	0		
1218	Lower Granite	09/1993	09/2025	7.875%	26	0		
1219	Lower Granite	09/1993	09/2025	7.875%	3,272	0		
1220	Lower Granite	09/1994	09/2019	7.125%	38	0		
1221	Lower Granite	09/1994	09/2029	7.150%	3,543	1,551		
1222	Lower Granite	09/1995	09/2017	7.290%	77	0		
1223	Lower Granite	09/1995	09/2017	7.290%	388	0		
1224	Lower Granite	09/1995	09/2017	7.290%	458	0		
1225	Lower Granite	09/1995	09/2025	7.160%	96	0		
1226	Lower Granite	09/1996	09/2011	7.130%	255	0		
1227	Lower Granite	09/1996	09/2031	7.150%	206	206		
1228	Lower Granite	09/1996	09/2046	7.150%	9	9		
1229	Lower Granite	09/1996	09/2046	7.150%	625	625		
1230	Lower Granite	09/1997	09/2047	7.150%	677	677		

TABLE 13A:
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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1231	Lower Granite	09/1999	09/2049	5.375%	856	856		
1232	Lower Granite	09/2001	09/2051	5.875%	2,025	2,025		
1233	Lower Granite	09/2002	09/2052	5.500%	1,275	1,275		
1234	Lower Granite	09/2003	09/2053	5.125%	42	42		
1235	Lower Granite	09/2005	09/2055	5.125%	393	393		
1236	Lower Granite	09/2008	09/2058	4.875%	24	24		
1237	Lower Granite	09/2009	09/2059	4.375%	5,669	5,669		
1238	Lower Granite	09/2010	09/2060	4.250%	1,156	1,156		
1239	Lower Granite	09/2011	09/2061	3.750%	8	8		
1240	Lower Granite	09/2014	09/2064	3.875%	2,644	2,644		
1241	Lower Granite	09/2015	09/2065	3.250%	1,599	1,599		
1242	Lower Monument	09/1969	09/2019	7.270%	26,974	0		
1243	Lower Monument	09/1970	09/2020	7.250%	51,218	0		
1244	Lower Monument	09/1971	09/2020	7.250%	214	0		
1245	Lower Monument	09/1972	09/2020	7.250%	214	0		
1246	Lower Monument	09/1973	09/2020	7.250%	214	0		
1247	Lower Monument	09/1974	09/2020	7.250%	214	0		
1248	Lower Monument	09/1975	09/2020	7.250%	214	0		
1249	Lower Monument	09/1976	09/2020	7.250%	214	0		
1250	Lower Monument	09/1977	09/2020	7.250%	214	0		
1251	Lower Monument	09/1978	09/2020	7.250%	214	0		
1252	Lower Monument	09/1979	09/2020	7.250%	214	0		
1253	Lower Monument	09/1979	09/2029	7.150%	40,669	40,669		
1254	Lower Monument	09/1980	09/2020	7.250%	214	0		
1255	Lower Monument	09/1981	09/2020	7.250%	214	0		
1256	Lower Monument	09/1982	09/2020	7.250%	214	0		
1257	Lower Monument	09/1983	09/2020	7.250%	214	0		
1258	Lower Monument	09/1985	09/2020	7.250%	8	0		
1259	Lower Monument	09/1985	09/2029	7.150%	256	256		
1260	Lower Monument	09/1986	09/2020	7.250%	132	0		
1261	Lower Monument	09/1987	09/2020	7.250%	3	0		
1262	Lower Monument	09/1987	09/2020	8.875%	50	0		
1263	Lower Monument	09/1988	09/2020	8.500%	1	0		
1264	Lower Monument	09/1988	09/2020	8.500%	58	0		
1265	Lower Monument	09/1989	09/2020	9.250%	93	0		
1266	Lower Monument	09/1990	09/2020	8.875%	358	0		
1267	Lower Monument	09/1991	09/2020	8.750%	594	0		
1268	Lower Monument	09/1992	09/2020	8.500%	4,484	0		
1269	Lower Monument	09/1993	09/2020	7.875%	24	0		
1270	Lower Monument	09/1993	09/2020	7.875%	2,175	0		
1271	Lower Monument	09/1994	09/2019	7.125%	107	0		
1272	Lower Monument	09/1994	09/2029	7.125%	2,167	0		
1273	Lower Monument	09/1995	09/2000	7.330%	6	0		
1274	Lower Monument	09/1995	09/2045	7.150%	41	41		
1275	Lower Monument	09/1995	09/2045	7.150%	99	99		
1276	Lower Monument	09/1995	09/2045	7.150%	624	624		
1277	Lower Monument	09/1995	09/2045	7.150%	1,122	1,122		
1278	Lower Monument	09/1996	09/2016	7.290%	668	0		
1279	Lower Monument	09/1996	09/2021	7.230%	37	0		
1280	Lower Monument	09/1996	09/2021	7.230%	51	0		
1281	Lower Monument	09/1996	09/2036	7.150%	264	264		
1282	Lower Monument	09/1996	09/2046	7.150%	10	10		
1283	Lower Monument	09/2001	09/2051	5.875%	3,301	3,301		
1284	Lower Monument	09/2002	09/2052	5.500%	29	29		
1285	Lower Monument	09/2003	09/2053	5.125%	22	22		
1286	Lower Monument	09/2004	09/2054	5.375%	3,423	3,423		
1287	Lower Monument	09/2005	09/2055	5.125%	527	527		
1288	Lower Monument	09/2006	09/2056	4.500%	285	285		
1289	Lower Monument	09/2008	09/2058	4.875%	9	9		
1290	Lower Monument	09/2009	09/2059	4.375%	2,332	2,332		
1291	Lower Monument	09/2012	09/2062	3.375%	89	89		
1292	Lower Monument	09/2014	09/2064	3.875%	1,430	1,430		
1293	Lower Snake Fish and Wildlife	09/1983	09/2033	7.150%	30,488	9,472		
1294	Lower Snake Fish and Wildlife	09/1985	09/2035	7.150%	47,921	47,921		
1295	Lower Snake Fish and Wildlife	09/1987	09/2037	7.150%	72,536	72,536		
1296	Lower Snake Fish and Wildlife	09/1988	09/2038	7.150%	805	805		
1297	Lower Snake Fish and Wildlife	09/1990	09/2040	7.150%	1,557	1,557		
1298	Lower Snake Fish and Wildlife	09/1991	09/2041	7.150%	4,411	4,411		
1299	Lower Snake Fish and Wildlife	09/1993	09/2043	7.150%	71,632	71,632		
1300	Lower Snake Fish and Wildlife	09/1994	09/2044	7.150%	4,722	4,722		
1301	Lower Snake Fish and Wildlife	09/1996	09/2046	7.150%	12,085	12,085		
1302	Lower Snake Fish and Wildlife	09/1997	09/2047	7.150%	2,173	2,173		
1303	Lower Snake Fish and Wildlife	09/1999	09/2049	5.375%	7	7		
1304	Lower Snake Fish and Wildlife	09/2000	09/2050	6.125%	1,529	1,529		
1305	Lower Snake Fish and Wildlife	09/2001	09/2051	5.875%	325	325		
1306	Lower Snake Fish and Wildlife	09/2002	09/2052	5.500%	890	890		
1307	Lower Snake Fish and Wildlife	09/2003	09/2053	5.125%	98	98		
1308	Lower Snake Fish and Wildlife	09/2004	09/2054	5.375%	230	230		
1309	Lower Snake Fish and Wildlife	09/2005	09/2055	5.125%	4	4		
1310	Lower Snake Fish and Wildlife	09/2006	09/2056	4.500%	379	379		
1311	Lower Snake Fish and Wildlife	09/2008	09/2058	4.875%	74	74		
1312	Lower Snake Fish and Wildlife	09/2009	09/2059	4.375%	1,540	1,540		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1313	Lower Snake Fish and Wildlife	09/2010	09/2060	4.250%	6	6		
1314	Lower Snake Fish and Wildlife	09/2011	09/2061	3.750%	122	122		
1315	Lower Snake Fish and Wildlife	09/2014	09/2064	3.875%	222	222		
1316	McNary	09/1954	09/2004	6.880%	80,256	0		
1317	McNary	09/1955	09/2005	6.910%	53,493	0		
1318	McNary	09/1956	09/2006	6.950%	38,748	0		
1319	McNary	09/1957	09/2007	6.980%	24,985	0		
1320	McNary	09/1958	09/2007	6.980%	468	0		
1321	McNary	09/1959	09/2007	6.980%	468	0		
1322	McNary	09/1960	09/2007	6.980%	468	0		
1323	McNary	09/1961	09/2007	6.980%	468	0		
1324	McNary	09/1962	09/2007	6.980%	467	0		
1325	McNary	09/1963	09/2007	6.980%	468	0		
1326	McNary	09/1964	09/2007	6.980%	468	0		
1327	McNary	09/1965	09/2007	6.980%	468	0		
1328	McNary	09/1966	09/2007	6.980%	468	0		
1329	McNary	09/1967	09/2007	6.980%	467	0		
1330	McNary	09/1968	09/2007	6.980%	468	0		
1331	McNary	09/1969	09/2007	6.980%	468	0		
1332	McNary	09/1970	09/2007	6.980%	468	0		
1333	McNary	09/1971	09/2007	6.980%	468	0		
1334	McNary	09/1972	09/2007	6.980%	468	0		
1335	McNary	09/1973	09/2007	6.980%	467	0		
1336	McNary	09/1974	09/2007	6.980%	468	0		
1337	McNary	09/1975	09/2007	6.980%	468	0		
1338	McNary	09/1976	09/2007	6.980%	468	0		
1339	McNary	09/1977	09/2007	6.980%	467	0		
1340	McNary	09/1978	09/2007	6.980%	468	0		
1341	McNary	09/1979	09/2007	6.980%	468	0		
1342	McNary	09/1980	09/2007	6.980%	468	0		
1343	McNary	09/1981	09/2007	6.980%	468	0		
1344	McNary	09/1982	09/2007	6.980%	467	0		
1345	McNary	09/1983	09/2007	6.980%	468	0		
1346	McNary	09/1985	09/2007	6.980%	557	0		
1347	McNary	09/1986	09/2007	6.980%	454	0		
1348	McNary	09/1987	09/2007	6.980%	24	0		
1349	McNary	09/1995	09/2010	7.090%	509	0		
1350	McNary	09/1995	09/2045	7.150%	16	16		
1351	McNary	09/1996	09/2006	6.950%	778	0		
1352	McNary	09/1996	09/2011	7.130%	3	0		
1353	McNary	09/1996	09/2026	7.150%	74	0		
1354	McNary	09/1996	09/2026	7.150%	277	0		
1355	McNary	09/1996	09/2046	7.150%	619	619		
1356	McNary	09/1997	09/2032	7.150%	30	30		
1357	McNary	09/2001	09/2051	5.875%	1,046	1,046		
1358	McNary	09/2003	09/2053	5.125%	97	97		
1359	McNary	09/2004	09/2054	5.375%	6,138	6,138		
1360	McNary	09/2005	09/2055	5.125%	550	550		
1361	McNary	09/2006	09/2056	4.500%	4,080	4,080		
1362	McNary	09/2008	09/2058	4.875%	215	215		
1363	McNary	09/2011	09/2061	3.750%	565	565		
1364	McNary	09/2012	09/2062	3.375%	11	11		
1365	McNary	09/2013	09/2063	2.875%	1,000	1,000		
1366	McNary	09/2014	09/2064	3.875%	759	759		
1367	Minidoka/Palisades	09/1909	09/1959	3.000%	854	0		
1368	Minidoka/Palisades	09/1909	09/1959	3.000%	226	0		
1369	Minidoka/Palisades	09/1910	09/1960	3.000%	1,709	0		
1370	Minidoka/Palisades	09/1910	09/1960	3.000%	451	0		
1371	Minidoka/Palisades	09/1911	09/1961	3.000%	1,709	0		
1372	Minidoka/Palisades	09/1911	09/1961	3.000%	451	0		
1373	Minidoka/Palisades	09/1927	09/1977	3.000%	854	0		
1374	Minidoka/Palisades	09/1927	09/1977	3.000%	226	0		
1375	Minidoka/Palisades	09/1942	09/1992	3.000%	854	0		
1376	Minidoka/Palisades	09/1942	09/1992	3.000%	226	0		
1377	Minidoka/Palisades	09/1957	09/2007	3.000%	2,561	0		
1378	Minidoka/Palisades	09/1957	09/2007	3.000%	677	0		
1379	Minidoka/Palisades	09/1958	09/2008	3.000%	854	0		
1380	Minidoka/Palisades	09/1958	09/2008	3.000%	226	0		
1381	Minidoka/Palisades	09/1959	09/2008	3.000%	108	0		
1382	Minidoka/Palisades	09/1959	09/2008	3.000%	28	0		
1383	Minidoka/Palisades	09/1960	09/2008	3.000%	108	0		
1384	Minidoka/Palisades	09/1960	09/2008	3.000%	29	0		
1385	Minidoka/Palisades	09/1961	09/2008	3.000%	108	0		
1386	Minidoka/Palisades	09/1961	09/2008	3.000%	29	0		
1387	Minidoka/Palisades	09/1962	09/2008	3.000%	108	0		
1388	Minidoka/Palisades	09/1962	09/2008	3.000%	28	0		
1389	Minidoka/Palisades	09/1963	09/2008	3.000%	108	0		
1390	Minidoka/Palisades	09/1963	09/2008	3.000%	29	0		
1391	Minidoka/Palisades	09/1964	09/2008	3.000%	108	0		
1392	Minidoka/Palisades	09/1964	09/2008	3.000%	28	0		
1393	Minidoka/Palisades	09/1965	09/2008	3.000%	108	0		
1394	Minidoka/Palisades	09/1965	09/2008	3.000%	29	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1395	Minidoka/Palisades	09/1966	09/2008	3.000%	108	0		
1396	Minidoka/Palisades	09/1966	09/2008	3.000%	29	0		
1397	Minidoka/Palisades	09/1967	09/2008	3.000%	108	0		
1398	Minidoka/Palisades	09/1967	09/2008	3.000%	28	0		
1399	Minidoka/Palisades	09/1968	09/2008	3.000%	108	0		
1400	Minidoka/Palisades	09/1968	09/2008	3.000%	29	0		
1401	Minidoka/Palisades	09/1969	09/2008	3.000%	3	0		
1402	Minidoka/Palisades	09/1969	09/2008	3.000%	28	0		
1403	Minidoka/Palisades	09/1970	09/2008	3.000%	108	0		
1404	Minidoka/Palisades	09/1970	09/2008	3.000%	29	0		
1405	Minidoka/Palisades	09/1971	09/2008	3.000%	108	0		
1406	Minidoka/Palisades	09/1971	09/2008	3.000%	29	0		
1407	Minidoka/Palisades	09/1972	09/2008	3.000%	108	0		
1408	Minidoka/Palisades	09/1972	09/2008	3.000%	28	0		
1409	Minidoka/Palisades	09/1973	09/2008	3.000%	108	0		
1410	Minidoka/Palisades	09/1973	09/2008	3.000%	29	0		
1411	Minidoka/Palisades	09/1974	09/2008	3.000%	108	0		
1412	Minidoka/Palisades	09/1974	09/2008	3.000%	28	0		
1413	Minidoka/Palisades	09/1975	09/2008	3.000%	108	0		
1414	Minidoka/Palisades	09/1975	09/2008	3.000%	29	0		
1415	Minidoka/Palisades	09/1976	09/2008	3.000%	108	0		
1416	Minidoka/Palisades	09/1976	09/2008	3.000%	29	0		
1417	Minidoka/Palisades	09/1977	09/2008	7.020%	83	0		
1418	Minidoka/Palisades	09/1977	09/2008	7.020%	28	0		
1419	Minidoka/Palisades	09/1978	09/2008	7.020%	75	0		
1420	Minidoka/Palisades	09/1978	09/2008	7.020%	20	0		
1421	Minidoka/Palisades	09/1979	09/2008	7.020%	75	0		
1422	Minidoka/Palisades	09/1979	09/2008	7.020%	19	0		
1423	Minidoka/Palisades	09/1980	09/2008	7.020%	75	0		
1424	Minidoka/Palisades	09/1980	09/2008	7.020%	20	0		
1425	Minidoka/Palisades	09/1981	09/2008	7.020%	75	0		
1426	Minidoka/Palisades	09/1981	09/2008	7.020%	20	0		
1427	Minidoka/Palisades	09/1982	09/2008	7.020%	75	0		
1428	Minidoka/Palisades	09/1982	09/2008	7.020%	19	0		
1429	Minidoka/Palisades	09/1983	09/2008	7.020%	65	0		
1430	Minidoka/Palisades	09/1983	09/2008	7.020%	20	0		
1431	Minidoka/Palisades	09/1984	09/2008	10.075%	44	0		
1432	Minidoka/Palisades	09/1984	09/2008	10.075%	11	0		
1433	Minidoka/Palisades	09/1985	09/2008	7.020%	21	0		
1434	Minidoka/Palisades	09/1986	09/2008	7.020%	21	0		
1435	Minidoka/Palisades	09/1986	09/2008	11.375%	48	0		
1436	Minidoka/Palisades	09/1987	09/2008	7.020%	16	0		
1437	Minidoka/Palisades	09/1988	09/2008	8.500%	31	0		
1438	Minidoka/Palisades	09/1989	09/2008	9.250%	20	0		
1439	Minidoka/Palisades	09/1990	09/2008	8.875%	33	0		
1440	Minidoka/Palisades	09/1991	09/2008	8.750%	62	0		
1441	Minidoka/Palisades	09/1991	09/2008	8.750%	11	0		
1442	Minidoka/Palisades	09/1991	09/2008	8.750%	32	0		
1443	Minidoka/Palisades	09/1992	09/2008	8.500%	6	0		
1444	Minidoka/Palisades	09/1994	09/2029	7.125%	351	0		
1445	Minidoka/Palisades	09/1995	09/2000	7.330%	6	0		
1446	Minidoka/Palisades	09/1995	09/2010	7.890%	40	0		
1447	Minidoka/Palisades	09/1996	09/2011	7.130%	54	0		
1448	Minidoka/Palisades	09/1997	09/2007	6.950%	66	0		
1449	Minidoka/Palisades	09/1997	09/2047	7.150%	50,911	50,911		
1450	Minidoka/Palisades	09/2001	09/2051	5.875%	42	42		
1451	Minidoka/Palisades	09/2012	09/2062	3.375%	7	7		
1452	Minidoka/Palisades	09/2015	09/2065	3.250%	19,237	19,237		
1453	RRP - Green Springs	09/2001	09/2051	5.875%	11,145	11,145		
1454	RRP - Green Springs	09/2012	09/2062	3.375%	2	2		
1455	RRP - Green Springs	09/2013	09/2063	2.875%	1	1		
1456	The Dalles	09/1957	09/2007	2.500%	15,908	0		
1457	The Dalles	09/1958	09/2008	7.020%	45,837	0		
1458	The Dalles	09/1959	09/2009	7.060%	40,415	0		
1459	The Dalles	09/1960	09/2010	7.090%	39,179	0		
1460	The Dalles	09/1961	09/2011	7.130%	9,492	0		
1461	The Dalles	09/1962	09/2011	7.130%	56	0		
1462	The Dalles	09/1963	09/2011	7.130%	57	0		
1463	The Dalles	09/1964	09/2011	7.130%	57	0		
1464	The Dalles	09/1965	09/2011	7.130%	56	0		
1465	The Dalles	09/1966	09/2011	7.130%	57	0		
1466	The Dalles	09/1967	09/2011	7.130%	57	0		
1467	The Dalles	09/1968	09/2011	7.130%	56	0		
1468	The Dalles	09/1969	09/2011	7.130%	57	0		
1469	The Dalles	09/1970	09/2011	7.130%	57	0		
1470	The Dalles	09/1971	09/2011	7.130%	56	0		
1471	The Dalles	09/1972	09/2011	7.130%	57	0		
1472	The Dalles	09/1973	09/2011	7.130%	57	0		
1473	The Dalles	09/1973	09/2023	7.190%	21,983	0		
1474	The Dalles	09/1974	09/2011	7.130%	56	0		
1475	The Dalles	09/1974	09/2024	7.170%	7,268	0		
1476	The Dalles	09/1975	09/2011	7.130%	57	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1477	The Dalles	09/1976	09/2011	7.130%	57	0		
1478	The Dalles	09/1977	09/2011	7.130%	56	0		
1479	The Dalles	09/1978	09/2011	7.130%	57	0		
1480	The Dalles	09/1979	09/2011	7.130%	57	0		
1481	The Dalles	09/1980	09/2011	7.130%	56	0		
1482	The Dalles	09/1981	09/2011	7.130%	57	0		
1483	The Dalles	09/1982	09/2011	7.130%	57	0		
1484	The Dalles	09/1983	09/2011	7.130%	56	0		
1485	The Dalles	09/1984	09/2011	10.750%	961	0		
1486	The Dalles	09/1985	09/2011	7.130%	95	0		
1487	The Dalles	09/1985	09/2011	12.375%	280	0		
1488	The Dalles	09/1986	09/2011	7.130%	95	0		
1489	The Dalles	09/1986	09/2011	11.375%	4	0		
1490	The Dalles	09/1987	09/2011	7.130%	1,417	0		
1491	The Dalles	09/1987	09/2011	8.875%	81	0		
1492	The Dalles	09/1988	09/2011	8.500%	685	0		
1493	The Dalles	09/1988	09/2011	8.500%	1	0		
1494	The Dalles	09/1989	09/2011	9.250%	898	0		
1495	The Dalles	09/1990	09/2011	8.875%	319	0		
1496	The Dalles	09/1990	09/2011	8.875%	745	0		
1497	The Dalles	09/1991	09/2011	8.750%	89	0		
1498	The Dalles	09/1991	09/2011	8.750%	2,452	0		
1499	The Dalles	09/1992	09/2011	8.500%	57	0		
1500	The Dalles	09/1992	09/2011	8.500%	130	0		
1501	The Dalles	09/1993	09/2011	7.875%	2,028	0		
1502	The Dalles	09/1993	09/2011	7.875%	2,929	0		
1503	The Dalles	09/1994	09/2029	7.125%	1,425	0		
1504	The Dalles	09/1996	09/2008	7.020%	196	0		
1505	The Dalles	09/1996	09/2011	7.130%	457	0		
1506	The Dalles	09/1996	09/2046	7.150%	1,991	1,991		
1507	The Dalles	09/2000	09/2050	6.125%	2,588	2,588		
1508	The Dalles	09/2002	09/2052	5.500%	1,226	1,226		
1509	The Dalles	09/2004	09/2054	5.375%	182	182		
1510	The Dalles	09/2005	09/2055	5.125%	36,019	36,019		
1511	The Dalles	09/2006	09/2056	4.500%	2,030	2,030		
1512	The Dalles	09/2007	09/2057	5.000%	140	140		
1513	The Dalles	09/2008	09/2058	4.875%	1,651	1,651		
1514	The Dalles	09/2015	09/2065	3.250%	456	456		
1515	Yakima Chandler/Kenniwick	09/1956	09/2022	7.210%	1,068	0		
1516	Yakima Chandler/Kenniwick	09/1956	09/2022	7.210%	481	0		
1517	Yakima Chandler/Kenniwick	09/1959	09/2022	7.210%	1	0		
1518	Yakima Chandler/Kenniwick	09/1960	09/2022	7.210%	1	0		
1519	Yakima Chandler/Kenniwick	09/1961	09/2022	7.210%	1	0		
1520	Yakima Chandler/Kenniwick	09/1984	09/2022	10.750%	35	0		
1521	Yakima Chandler/Kenniwick	09/1984	09/2022	10.750%	10	0		
1522	Yakima Chandler/Kenniwick	09/1985	09/2022	12.375%	357	0		
1523	Yakima Chandler/Kenniwick	09/1986	09/2022	7.210%	439	0		
1524	Yakima Chandler/Kenniwick	09/1986	09/2022	11.375%	7	0		
1525	Yakima Chandler/Kenniwick	09/1987	09/2022	8.875%	126	0		
1526	Yakima Chandler/Kenniwick	09/1989	09/2022	9.250%	18	0		
1527	Yakima Chandler/Kenniwick	09/1990	09/2022	8.875%	40	0		
1528	Yakima Chandler/Kenniwick	09/1991	09/2022	8.750%	109	0		
1529	Yakima Chandler/Kenniwick	09/2005	09/2055	5.125%	833	833		
1530	Yakima Chandler/Kenniwick	09/2009	09/2059	4.375%	15	15		
1531	Yakima Roza	09/1958	09/2008	7.020%	1,194	0		
1532	Yakima Roza	09/1958	09/2008	7.020%	383	0		
1533	Yakima Roza	09/1984	09/2008	10.750%	5	0		
1534	Yakima Roza	09/1984	09/2008	10.750%	17	0		
1535	Yakima Roza	09/1985	09/2008	7.020%	69	0		
1536	Yakima Roza	09/1985	09/2008	12.375%	5	0		
1537	Yakima Roza	09/1986	09/2008	7.020%	6	0		
1538	Yakima Roza	09/1987	09/2008	7.020%	2	0		
1539	Yakima Roza	09/1987	09/2008	8.875%	9	0		
1540	Yakima Roza	09/2001	09/2051	5.875%	15	14		
1541	Bureau Direct	05/1995	05/2015	7.500%	35,000	0		
1542	Bureau Direct	05/1997	05/2000	6.500%	50,000	0		
1543	Bureau Direct	04/1998	05/2008	6.000%	25,000	0		
1544	Bureau Direct	09/1999	09/2004	6.400%	20,000	0		
1545	Bureau Direct	04/2000	04/2003	6.850%	40,000	0		
1546	Bureau Direct	09/2000	09/2005	6.700%	20,000	0		
1547	Bureau Direct	06/2001	06/2004	4.750%	50,000	0		
1548	Bureau Direct	03/2002	03/2005	4.600%	30,000	0		
1549	Bureau Direct	09/2002	09/2006	3.050%	20,000	0		
1550	Bureau Direct	12/2002	12/2006	3.050%	40,000	0		
1551	Bureau Direct	04/2003	04/2006	2.400%	40,000	0		
1552	Bureau Direct	04/2003	04/2006	2.400%	25,000	0		
1553	Bureau Direct	07/2003	07/2006	2.300%	30,000	0		
1554	Bureau Direct	09/2003	09/2006	2.500%	25,000	0		
1555	Bureau Direct	01/2004	01/2007	2.500%	25,000	0		
1556	Bureau Direct	04/2004	04/2007	2.950%	35,000	0		
1557	Bureau Direct	07/2004	07/2007	3.450%	25,000	0		
1558	Bureau Direct	09/2004	09/2007	3.100%	30,000	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1559	Bureau Direct	11/2004	11/2007	3.500%	20,000	0		
1560	Bureau Direct	01/2005	01/2008	3.600%	20,000	0		
1561	Bureau Direct	06/2005	06/2008	3.950%	30,000	0		
1562	Bureau Direct	09/2005	09/2008	4.250%	25,000	0		
1563	Bureau Direct	03/2006	03/2009	5.050%	25,000	0		
1564	Bureau Direct	07/2006	07/2009	5.350%	45,000	0		
1565	Bureau Direct	09/2006	09/2009	4.950%	15,000	0		
1566	Bureau Direct	01/2007	01/2010	5.100%	35,000	0		
1567	Bureau Direct	03/2007	03/2010	4.800%	30,000	0		
1568	Bureau Direct	06/2007	06/2010	5.350%	30,000	0		
1569	Bureau Direct	01/2008	01/2011	2.850%	35,000	0		
1570	Bureau Direct	01/2008	01/2011	2.850%	20,000	0		
1571	Bureau Direct	05/2008	05/2011	3.358%	35,000	0		
1572	Bureau Direct	05/2008	05/2011	3.358%	25,000	0		
1573	Bureau Direct	06/2008	06/2012	3.974%	30,000	0		
1574	Bureau Direct	07/2008	07/2012	3.913%	35,000	0		
1575	Bureau Direct	09/2008	09/2012	3.444%	35,000	0		
1576	Bureau Direct	01/2009	01/2021	3.999%	25,000	25,000		
1577	Bureau Direct	04/2009	04/2023	4.391%	25,000	25,000	04/2032	4.052%
1578	Bureau Direct	06/2009	06/2039	5.192%	25,000	25,000		
1579	Bureau Direct	09/2009	09/2019	3.699%	25,000	25,000	09/2030	4.136%
1580	Bureau Direct	10/2009	10/2018	3.719%	24,000	24,000		
1581	Bureau Direct	10/2009	10/2019	3.842%	20,000	20,000		
1582	Bureau Direct	11/2009	11/2019	3.637%	7,000	7,000		
1583	Bureau Direct	12/2009	12/2019	4.194%	13,000	13,000		
1584	Bureau Direct	01/2010	01/2019	3.714%	10,000	10,000	01/2030	4.136%
1585	Bureau Direct	02/2010	02/2019	0.165%	10,000	0		
1586	Bureau Direct	03/2010	03/2020	4.083%	30,000	30,000		
1587	Bureau Direct	04/2010	04/2020	3.973%	18,000	18,000		
1588	Bureau Direct	05/2010	05/2020	3.574%	15,000	15,000		
1589	Bureau Direct	06/2010	06/2020	3.243%	10,000	10,000	06/2031	4.136%
1590	Bureau Direct	06/2010	06/2020	3.243%	30,000	30,000	06/2031	4.136%
1591	Bureau Direct	07/2010	07/2020	3.118%	17,000	17,000		
1592	Bureau Direct	08/2010	08/2020	0.165%	5,000	0		
1593	Bureau Direct	09/2010	09/2021	2.883%	22,000	22,000		
1594	Bureau Direct	10/2010	10/2034	4.211%	20,000	20,000		
1595	Bureau Direct	01/2011	09/2011	0.244%	20,000	0		
1596	Bureau Direct	01/2011	09/2011	0.244%	35,000	0		
1597	Bureau Direct	01/2011	01/2039	5.040%	35,000	35,000		
1598	Bureau Direct	02/2011	02/2040	4.995%	50,000	50,000		
1599	Bureau Direct	05/2011	09/2011	0.076%	35,000	0		
1600	Bureau Direct	05/2011	09/2011	0.076%	25,000	0		
1601	Bureau Direct	06/2011	06/2036	4.629%	30,000	30,000		
1602	Bureau Direct	06/2011	06/2038	4.700%	30,000	30,000		
1603	Bureau Direct	08/2011	08/2037	4.208%	30,000	30,000		
1604	Bureau Direct	09/2011	07/2041	3.825%	30,000	0		
1605	Bureau Direct	12/2011	12/2038	3.880%	35,000	0		
1606	Bureau Direct	01/2012	01/2038	3.893%	15,000	0		
1607	Bureau Direct	02/2012	02/2034	0.515%	55,000	55,000		
1608	Bureau Direct	06/2012	06/2041	3.666%	50,000	0		
1609	Bureau Direct	06/2012	09/2012	0.119%	30,000	0		
1610	Bureau Direct	08/2012	07/2042	3.834%	44,000	0		
1611	Bureau Direct	09/2012	09/2013	0.174%	35,000	0		
1612	Bureau Direct	09/2012	09/2042	3.668%	25,000	0		
1613	Bureau Direct	01/2013	01/2043	6.194%	70,000	0		
1614	Bureau Direct	02/2013	02/2043	5.993%	18,000	0		
1615	Bureau Direct	03/2013	03/2043	5.958%	15,000	0		
1616	Bureau Direct	04/2013	04/2043	5.633%	15,000	0		
1617	Bureau Direct	05/2013	05/2043	6.192%	18,000	0		
1618	Bureau Direct	06/2013	01/2039	0.505%	35,000	35,000		
1619	Bureau Direct	06/2013	06/2043	6.938%	21,000	0		
1620	Bureau Direct	07/2013	07/2034	7.164%	25,000	0		
1621	Bureau Direct	08/2013	08/2034	7.413%	15,000	0		
1622	Bureau Direct	11/2013	09/2014	0.140%	77,000	0		
1623	Bureau Direct	11/2013	09/2021	2.812%	50,000	50,000		
1624	Bureau Direct	11/2013	09/2022	3.125%	19,000	19,000		
1625	Bureau Direct	11/2013	09/2020	2.473%	51,000	51,000	09/2031	4.136%
1626	Bureau Direct	01/2014	12/2018	1.943%	43,000	43,000		
1627	Bureau Direct	01/2014	12/2018	1.943%	38,000	38,000		
1628	Bureau Direct	01/2014	12/2018	1.943%	21,000	21,000	12/2029	4.136%
1629	Bureau Direct	01/2014	12/2018	1.943%	26,000	26,000	12/2029	4.136%
1630	Bureau Direct	01/2014	12/2018	1.943%	14,000	14,000	12/2029	4.136%
1631	Bureau Direct	09/2014	05/2032	0.577%	16,000	16,000		
1632	Bureau Direct	09/2014	05/2032	0.577%	10,000	10,000		
1633	Bureau Direct	09/2014	06/2033	0.490%	11,000	11,000		
1634	Bureau Direct	09/2014	06/2033	0.490%	12,000	12,000		
1635	Bureau Direct	09/2014	07/2033	0.505%	15,000	15,000		
1636	Bureau Direct	09/2015	09/2033	3.134%	10,000	10,000		
1637	Bureau Direct	04/2016	04/2031	2.661%	17,000	17,000		
1638	Bureau Direct	07/2016	07/2030	2.145%	12,000	12,000		
1639	Bureau Direct	07/2016	07/2030	2.145%	25,000	25,000		
1640	Conservation	09/1983	09/2003	12.200%	140,000	0		

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	A	B	C	D	E	F	G	H
	Project	In Service Date	Due Date	Interest Rate	Initial Principal	Current Principal	Roll Maturity Date	Rollover Rate
1641	Conservation	09/1984	09/2004	13.050%	150,000	0		
1642	Conservation	09/1985	09/1990	10.150%	50,000	0		
1643	Conservation	03/1986	03/1991	7.800%	50,000	0		
1644	Conservation	03/1986	03/1996	8.150%	50,000	0		
1645	Conservation	04/1987	04/2007	9.300%	75,000	0		
1646	Conservation	06/1987	06/1992	8.350%	50,000	0		
1647	Conservation	04/1988	04/2008	9.900%	90,000	0		
1648	Conservation	07/1989	07/2009	8.550%	40,000	0		
1649	Conservation	09/1989	09/1995	8.600%	66,000	0		
1650	Conservation	09/1989	09/2002	8.650%	66,000	0		
1651	Conservation	07/1992	07/1997	5.800%	80,200	0		
1652	Conservation	07/1992	07/2007	7.140%	100,000	0		
1653	Conservation	10/1992	10/2012	8.050%	50,000	0		
1654	Conservation	02/1993	02/2013	7.400%	50,000	0		
1655	Conservation	08/1993	08/2013	6.750%	40,000	0		
1656	Conservation	01/1994	01/2014	6.750%	50,000	0		
1657	Conservation	05/1994	05/1998	7.100%	50,000	0		
1658	Conservation	05/1995	05/2015	7.500%	85,000	0		
1659	Conservation	01/1996	01/2011	6.700%	30,000	0		
1660	Conservation	11/1996	11/2016	7.200%	40,000	0		
1661	Conservation	05/1998	05/2009	6.000%	37,700	0		
1662	Conservation	09/1998	09/2008	5.300%	104,300	0		
1663	Conservation	09/1998	09/2013	5.600%	52,800	0		
1664	Conservation	07/2000	07/2003	6.950%	32,000	0		
1665	Conservation	06/2002	06/2005	3.750%	40,000	0		
1666	Conservation	01/2004	01/2008	2.950%	30,000	0		
1667	Conservation	03/2006	03/2009	5.050%	20,000	0		
1668	Conservation	06/2007	06/2010	5.350%	20,000	0		
1669	Conservation	09/2008	09/2013	3.701%	10,000	0		
1670	Conservation	09/2009	09/2014	2.746%	15,000	0		
1671	Conservation	01/2010	01/2015	2.609%	15,000	0		
1672	Conservation	04/2010	04/2015	2.677%	20,000	0		
1673	Conservation	08/2010	08/2015	1.619%	15,000	0		
1674	Conservation	09/2010	09/2015	1.534%	10,000	0		
1675	Conservation	01/2011	01/2023	4.046%	40,000	40,000		
1676	Conservation	04/2011	04/2023	3.932%	35,000	35,000		
1677	Conservation	08/2011	08/2023	3.206%	40,000	40,000		
1678	Conservation	10/2011	08/2012	0.204%	55,000	0		
1679	Conservation	12/2011	12/2037	0.189%	55,000	0		
1680	Conservation	05/2012	09/2015	0.676%	30,000	0		
1681	Conservation	06/2012	09/2015	0.671%	15,000	0		
1682	Conservation	08/2012	08/2024	2.788%	15,000	0		
1683	Conservation	11/2012	11/2016	0.630%	20,000	20,000		
1684	Conservation	01/2013	01/2018	1.107%	9,000	9,000		
1685	Conservation	03/2013	03/2025	4.992%	10,000	0		
1686	Conservation	04/2013	04/2025	4.553%	12,000	0		
1687	Conservation	08/2013	08/2025	6.973%	5,000	0		
1688	Conservation	10/2013	10/2025	3.568%	34,000	34,000		
1689	Conservation	11/2013	09/2023	3.375%	27,000	27,000		
1690	Conservation	12/2013	12/2021	3.142%	6,000	6,000		
1691	Conservation	12/2013	12/2023	0.490%	55,000	55,000		
1692	Conservation	01/2014	01/2026	3.621%	5,000	5,000		
1693	Conservation	04/2014	06/2025	0.490%	30,000	30,000		
1694	Conservation	05/2014	04/2024	0.483%	15,000	15,000		
1695	Conservation	05/2014	04/2025	0.483%	3,000	3,000		
1696	Conservation	06/2014	10/2024	0.483%	5,000	5,000		
1697	Conservation	07/2014	07/2025	0.505%	12,000	12,000		
1698	Conservation	08/2014	09/2025	0.519%	4,000	4,000		
1699	Conservation	10/2014	12/2024	0.490%	10,000	10,000		
1700	Conservation	11/2014	03/2027	0.519%	6,000	6,000		
1701	Conservation	12/2014	12/2023	2.403%	7,000	7,000		
1702	Conservation	01/2015	09/2015	0.204%	15,000	0		
1703	Conservation	01/2015	01/2024	1.908%	7,000	7,000		
1704	Conservation	02/2015	02/2024	2.251%	8,000	8,000		
1705	Conservation	03/2015	03/2025	2.295%	5,000	5,000		
1706	Conservation	04/2015	04/2024	2.269%	5,000	5,000		
1707	Conservation	05/2015	05/2021	1.898%	5,000	5,000		
1708	Conservation	07/2015	07/2021	2.067%	14,000	14,000		
1709	Conservation	08/2015	08/2022	2.233%	6,000	6,000		
1710	Conservation	09/2015	09/2022	2.062%	4,000	4,000		
1711	Conservation	10/2015	10/2027	0.483%	25,000	25,000		
1712	Construction (AS)	10/1992	10/2032	8.350%	38	0		
1713	Construction (AS)	07/1995	07/2025	7.700%	67	0		
1714	Construction (AS)	01/1996	01/2003	5.900%	5,622	0		
1715	Construction (AS)	01/1997	01/2004	6.800%	7,400	0		
1716	Construction (AS)	08/1998	08/2008	5.750%	3,181	0		
1717	Construction (AS)	02/1999	02/2014	5.900%	950	0		
1718	Construction (AS)	07/2000	07/2004	7.000%	10,948	0		
1719	Construction (AS)	01/2001	01/2010	6.050%	68	0		
1720	Construction (AS)	03/2002	03/2005	4.600%	1,990	0		
1721	Construction (AS)	10/2002	10/2005	3.000%	45,062	0		
1722	Construction (AS)	01/2004	01/2007	2.500%	13,357	0		

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1723	Construction (AS)	11/2004	11/2008	3.750%	7,990	0		
1724	Construction (AS)	09/2006	09/2010	4.950%	9,681	0		
1725	Construction (AS)	01/2008	01/2012	3.200%	10,000	0		
1726	Construction (AS)	09/2008	09/2012	3.444%	10,000	0		
1727	Construction (AS)	09/2009	09/2014	2.746%	14,000	0		
1728	Construction (AS)	02/2010	02/2015	0.165%	7,500	0		
1729	Construction (AS)	08/2010	08/2015	1.619%	5,000	0		
1730	Construction (AS)	06/2011	06/2016	1.957%	7,000	0		
1731	Construction (AS)	08/2011	08/2016	1.423%	3,500	3,500		
1732	Construction (AS)	01/2012	09/2012	0.146%	10,000	0		
1733	Construction (AS)	06/2012	09/2015	0.671%	7,700	0		
1734	Construction (AS)	11/2012	11/2018	1.109%	5,250	5,250		
1735	Construction (AS)	04/2013	04/2017	0.622%	2,450	2,450		
1736	Construction (AS)	06/2013	06/2017	1.271%	3,000	3,000		
1737	Construction (AS)	08/2013	08/2017	1.494%	2,000	2,000		
1738	Construction (AS)	10/2013	10/2019	2.039%	4,200	4,200		
1739	Construction (AS)	10/2013	10/2019	2.039%	5,000	5,000		
1740	Construction (AS)	01/2014	01/2020	2.183%	1,750	1,750		
1741	Construction (AS)	01/2014	01/2020	2.183%	2,000	2,000		
1742	Construction (AS)	02/2014	09/2014	0.117%	950	0		
1743	Construction (AS)	04/2014	03/2020	0.519%	1,400	1,400		
1744	Construction (AS)	04/2014	03/2020	0.519%	2,000	2,000		
1745	Construction (AS)	05/2014	04/2020	0.483%	700	700		
1746	Construction (AS)	07/2014	07/2020	0.505%	1,050	1,050		
1747	Construction (AS)	11/2014	11/2020	1.809%	2,100	2,100		
1748	Construction (AS)	12/2014	12/2020	1.922%	1,050	1,050		
1749	Construction (AS)	02/2015	02/2021	1.761%	1,750	1,750		
1750	Construction (AS)	05/2015	05/2021	1.898%	2,100	2,100		
1751	Construction (AS)	09/2015	09/2017	0.744%	7,700	7,700		
1752	Construction (AS)	10/2015	10/2021	1.942%	2,800	2,800		
1753	Construction (AS)	02/2016	02/2022	0.515%	3,000	3,000		
1754	Construction (AS)	06/2016	09/2016	0.436%	7,000	7,000		
1755	Corps	09/2015	09/2033	3.134%	4,000	4,000		
1756	Corps	02/2016	02/2045	0.515%	3,000	3,000		
1757	Corps	04/2016	04/2031	2.661%	53,000	53,000		
1758	Corps	05/2016	05/2030	2.599%	15,000	15,000		
1759	Fish and Wildlife	05/1989	05/1999	8.950%	25,000	0		
1760	Fish and Wildlife	05/1991	05/1996	7.950%	50,000	0		
1761	Fish and Wildlife	02/1993	02/2008	6.950%	20,000	0		
1762	Fish and Wildlife	09/1994	09/1999	7.650%	20,000	0		
1763	Fish and Wildlife	08/1995	08/2010	7.200%	35,000	0		
1764	Fish and Wildlife	01/1998	01/2013	6.100%	60,000	0		
1765	Fish and Wildlife	09/1999	09/2003	6.300%	20,000	0		
1766	Fish and Wildlife	01/2001	01/2005	5.650%	25,000	0		
1767	Fish and Wildlife	09/2003	09/2007	3.100%	20,000	0		
1768	Fish and Wildlife	09/2005	09/2008	4.250%	20,000	0		
1769	Fish and Wildlife	09/2006	09/2010	4.950%	20,000	0		
1770	Fish and Wildlife	06/2007	06/2010	5.350%	30,000	0		
1771	Fish and Wildlife	09/2007	09/2011	4.700%	20,000	0		
1772	Fish and Wildlife	09/2008	09/2012	3.444%	20,000	0		
1773	Fish and Wildlife	06/2009	06/2024	4.556%	20,000	20,000		

TABLE 13B
PROJECTED INVESTMENTS, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation period
($000s) (FY 2019)

	A	B	C	D	E	F	G
	Project	In Service Date	Due Date	Interest Rate	Current Principal	Roll Maturity Date	Rollover Rate
1	Bureau Direct	07/2017	07/2032	3.810%	16,000		
2	Bureau Direct	08/2017	08/2034	3.890%	16,000		
3	Bureau Direct	09/2017	09/2036	3.970%	16,000		
4	Bureau Direct	07/2018	07/2038	4.320%	28,000		
5	Bureau Direct	08/2018	08/2040	4.380%	28,000		
6	Bureau Direct	09/2018	09/2042	4.440%	28,000		
7	Bureau Direct	07/2019	07/2044	4.530%	47,000		
8	Bureau Direct	08/2019	08/2046	4.590%	47,000		
9	Bureau Direct	09/2019	09/2048	4.650%	47,000		
10	Columbia River Fish Mitigation	09/2016	09/2066	3.000%	45,326		
11	Columbia River Fish Mitigation	09/2017	09/2067	3.680%	151,772		
12	Columbia River Fish Mitigation	09/2018	09/2068	3.930%	81,269		
13	Columbia River Fish Mitigation	09/2019	09/2069	3.980%	53,204		
14	Construction (AS)	09/2017	09/2023	3.120%	5,250		
15	Construction (AS)	09/2018	09/2024	3.700%	5,950		
16	Construction (AS)	09/2019	09/2025	3.890%	5,950		
17	Corps	07/2017	07/2033	3.850%	55,000		
18	Corps	08/2017	08/2035	3.930%	55,000		
19	Corps	09/2017	09/2037	4.010%	55,000		
20	Corps	07/2018	07/2039	4.350%	53,000		
21	Corps	08/2018	08/2041	4.410%	53,000		
22	Corps	09/2018	09/2043	4.470%	52,000		
23	Corps	07/2019	07/2045	4.560%	41,000		
24	Corps	08/2019	08/2047	4.620%	41,000		
25	Corps	09/2019	09/2049	4.670%	41,000		
26	Fish and Wildlife	09/2017	09/2032	3.810%	45,000		
27	Fish and Wildlife	09/2018	09/2033	4.160%	51,000		
28	Fish and Wildlife	09/2019	09/2034	4.250%	44,000		
29	Technology (G)	09/2017	09/2022	3.000%	5,000		
30	Technology (G)	09/2018	09/2023	3.630%	5,000		
31	Technology (G)	09/2019	03/2024	3.830%	5,000		
32	**Totals:**				**1,222,721**		

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
1	2016	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
2	2016	Boise	Historical	4,429	6.653%	295	-	-	295
3	2016	Bonneville 2nd Powerhouse	Historical	366,796	7.150%	26,226	-	-	26,226
4	2016	Bonneville Dam	Historical	151,828	5.482%	8,323	-	-	8,323
5	2016	Chief Joseph	Historical	238,256	6.818%	16,243	-	-	16,243
6	2016	Columbia Basin	Historical	98,275	5.674%	5,577	-	-	5,577
7	2016	Columbia Basin 3rd Powerhouse	Historical	361,897	7.150%	25,876	-	-	25,876
8	2016	Columbia River Fish Mitigation	Historical	1,392,630	4.400%	61,273	-	-	61,273
9	2016	Cougar	Historical	16,708	4.580%	765	-	-	765
10	2016	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
11	2016	Dworshak	Historical	14,040	6.340%	890	-	-	890
12	2016	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
13	2016	Hills Creek	Historical	2,867	5.972%	171	-	-	171
14	2016	Hungry Horse Dam	Historical	13,312	6.264%	834	-	-	834
15	2016	Ice Harbor	Historical	18,673	4.875%	910	-	-	910
16	2016	John Day	Historical	30,473	5.425%	1,653	-	-	1,653
17	2016	Libby	Historical	23,079	6.658%	1,537	-	-	1,537
18	2016	Little Goose	Historical	63,856	6.907%	4,410	-	-	4,410
19	2016	Lookout Dam	Historical	13,543	5.467%	740	-	-	740
20	2016	Lost Creek	Historical	12,618	7.133%	900	-	-	900
21	2016	Lower Granite	Historical	59,370	6.457%	3,833	-	-	3,833
22	2016	Lower Monument	Historical	54,534	6.715%	3,662	-	-	3,662
23	2016	Lower Snake Fish and Wildlife	Historical	232,739	7.104%	16,534	-	-	16,534
24	2016	McNary	Historical	15,126	4.931%	746	-	-	746
25	2016	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
26	2016	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
27	2016	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
28	2016	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
29	2016	Yakima Roza	Historical	14	5.878%	1	-	-	1
30	2016	Bureau Direct	Historical	937,000	3.028%	28,376	-	-	28,376
31	2016	Bureau Direct	New	54,000	-	-	-	319	319
32	2016	Conservation	Historical	417,000	2.156%	8,992	-	-	8,992
33	2016	Conservation	New	25,000	0.242%	60	-	50	110
34	2016	Construction (AS)	Historical	49,000	1.373%	673	-	(4)	669
35	2016	Construction (AS)	New	12,800	0.332%	43	-	24	66
36	2016	Corps	Historical	4,000	3.134%	125	-	-	125
37	2016	Corps	New	71,000	0.011%	8	-	717	725
38	2016	Fish and Wildlife	Historical	327,000	3.291%	10,763	-	-	10,763
39	2016	Fish and Wildlife	New	13,000	0.394%	51	-	3	55
40	2016	Technology (G)	Historical	35,000	1.469%	514	-	-	514
41	2016	Technology (G)	New	6,000	0.379%	23	-	5	28
42	2016	Float	Historical	-	-	(1,990)	-	-	(1,990)
43	**FY 2016**	**Subtotal:**		**5,270,310**		**236,762**	**-**	**1,114**	**237,876**
44	2017	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
45	2017	Boise	Historical	4,429	6.653%	295	-	-	295
46	2017	Bonneville 2nd Powerhouse	Historical	16,759	7.150%	1,198	-	-	1,198
47	2017	Bonneville Dam	Historical	135,618	5.283%	7,164	-	-	7,164
48	2017	Chief Joseph	Historical	37,578	5.043%	1,895	-	-	1,895
49	2017	Columbia Basin	Historical	97,915	5.669%	5,551	-	-	5,551
50	2017	Columbia Basin 3rd Powerhouse	Historical	43,638	7.150%	3,120	-	-	3,120
51	2017	Columbia River Fish Mitigation	Historical	1,437,956	4.356%	62,632	-	-	62,632
52	2017	Cougar	Historical	16,708	4.580%	765	-	-	765
53	2017	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
54	2017	Dworshak	Historical	13,613	6.314%	860	-	-	860
55	2017	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
56	2017	Hills Creek	Historical	2,867	5.972%	171	-	-	171
57	2017	Hungry Horse Dam	Historical	11,581	6.131%	710	-	-	710
58	2017	Ice Harbor	Historical	18,595	4.865%	905	-	-	905
59	2017	John Day	Historical	30,473	5.425%	1,653	-	-	1,653
60	2017	Libby	Historical	22,777	6.652%	1,515	-	-	1,515
61	2017	Little Goose	Historical	14,231	6.058%	862	-	-	862
62	2017	Lookout Dam	Historical	13,543	5.467%	740	-	-	740
63	2017	Lost Creek	Historical	272	6.370%	17	-	-	17
64	2017	Lower Granite	Historical	17,002	4.730%	804	-	-	804
65	2017	Lower Monument	Historical	13,609	5.407%	736	-	-	736
66	2017	Lower Snake Fish and Wildlife	Historical	223,267	7.102%	15,857	-	-	15,857
67	2017	McNary	Historical	15,096	4.927%	744	-	-	744
68	2017	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
69	2017	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
70	2017	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
71	2017	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
72	2017	Yakima Roza	Historical	14	5.878%	1	-	-	1
73	2017	Bureau Direct	Historical	991,000	2.989%	29,622	-	-	29,622
74	2017	Bureau Direct	New	32,000	-	-	-	153	153
75	2017	Conservation	Historical	442,000	2.047%	9,050	-	(42)	9,008
76	2017	Construction (AS)	Historical	51,300	1.351%	693	-	(18)	675
77	2017	Corps	Historical	75,000	2.588%	1,941	-	-	1,941
78	2017	Corps	New	110,000	-	-	-	532	532
79	2017	Fish and Wildlife	Historical	340,000	3.185%	10,830	-	-	10,830
80	2017	Technology (G)	Historical	41,000	1.328%	544	-	-	544
81	2017	Float	Historical	-	-	(1,327)	-	-	(1,327)
82	**FY 2017**	**Subtotal:**		**4,404,288**		**167,274**	**-**	**625**	**167,898**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
83	2018	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
84	2018	Boise	Historical	4,429	6.653%	295	-	-	295
85	2018	Bonneville 2nd Powerhouse	Historical	9,867	7.150%	705	-	-	705
86	2018	Bonneville Dam	Historical	135,618	5.283%	7,164	-	-	7,164
87	2018	Chief Joseph	Historical	37,578	5.043%	1,895	-	-	1,895
88	2018	Columbia Basin	Historical	97,915	5.669%	5,551	-	-	5,551
89	2018	Columbia Basin 3rd Powerhouse	Historical	12,631	7.150%	903	-	-	903
90	2018	Columbia River Fish Mitigation	Historical	1,589,727	4.291%	68,217	-	-	68,217
91	2018	Cougar	Historical	16,708	4.580%	765	-	-	765
92	2018	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
93	2018	Dworshak	Historical	13,613	6.314%	860	-	-	860
94	2018	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
95	2018	Hills Creek	Historical	2,867	5.972%	171	-	-	171
96	2018	Hungry Horse Dam	Historical	11,581	6.131%	710	-	-	710
97	2018	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
98	2018	John Day	Historical	30,278	5.413%	1,639	-	-	1,639
99	2018	Libby	Historical	7,996	5.731%	458	-	-	458
100	2018	Little Goose	Historical	13,031	5.958%	776	-	-	776
101	2018	Lookout Dam	Historical	13,543	5.467%	740	-	-	740
102	2018	Lost Creek	Historical	272	6.370%	17	-	-	17
103	2018	Lower Granite	Historical	17,002	4.730%	804	-	-	804
104	2018	Lower Monument	Historical	13,345	5.373%	717	-	-	717
105	2018	Lower Snake Fish and Wildlife	Historical	55,653	6.958%	3,872	-	-	3,872
106	2018	McNary	Historical	15,096	4.927%	744	-	-	744
107	2018	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
108	2018	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
109	2018	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
110	2018	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
111	2018	Yakima Roza	Historical	14	5.878%	1	-	-	1
112	2018	Bureau Direct	Historical	1,039,000	3.031%	31,487	-	-	31,487
113	2018	Bureau Direct	New	56,000	-	-	-	303	303
114	2018	Conservation	Historical	422,000	2.118%	8,937	-	(16)	8,921
115	2018	Construction (AS)	Historical	41,400	1.730%	716	-	-	716
116	2018	Corps	Historical	240,000	3.508%	8,419	-	-	8,419
117	2018	Corps	New	106,000	-	-	-	578	578
118	2018	Fish and Wildlife	Historical	385,000	3.258%	12,544	-	-	12,544
119	2018	Technology (G)	Historical	46,000	1.510%	694	-	-	694
120	2018	Float	Historical	-	-	(1,026)	-	-	(1,026)
121	**FY 2018**	**Subtotal:**		**4,586,836**		**167,383**	**-**	**865**	**168,247**
122	2019	Albeni Falls	Historical	3,090	6.744%	208	-	-	208
123	2019	Boise	Historical	4,429	6.653%	295	-	-	295
124	2019	Bonneville 2nd Powerhouse	Historical	4,167	7.150%	298	-	-	298
125	2019	Bonneville Dam	Historical	135,618	5.283%	7,164	-	-	7,164
126	2019	Chief Joseph	Historical	33,561	4.790%	1,608	-	-	1,608
127	2019	Columbia Basin	Historical	97,915	5.669%	5,551	-	-	5,551
128	2019	Columbia River Fish Mitigation	Historical	1,668,624	4.269%	71,242	-	-	71,242
129	2019	Cougar	Historical	16,708	4.580%	765	-	-	765
130	2019	Detroit Lake/Big Cliff	Historical	2,138	4.698%	100	-	-	100
131	2019	Dworshak	Historical	13,613	6.314%	860	-	-	860
132	2019	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
133	2019	Hills Creek	Historical	2,867	5.972%	171	-	-	171
134	2019	Hungry Horse Dam	Historical	5,391	4.962%	267	-	-	267
135	2019	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
136	2019	John Day	Historical	21,980	4.758%	1,046	-	-	1,046
137	2019	Libby	Historical	7,996	5.731%	458	-	-	458
138	2019	Little Goose	Historical	13,031	5.958%	776	-	-	776
139	2019	Lookout Dam	Historical	13,471	5.458%	735	-	-	735
140	2019	Lost Creek	Historical	178	5.960%	11	-	-	11
141	2019	Lower Granite	Historical	17,002	4.730%	804	-	-	804
142	2019	Lower Monument	Historical	11,459	5.080%	582	-	-	582
143	2019	Lower Snake Fish and Wildlife	Historical	19,683	6.607%	1,301	-	-	1,301
144	2019	McNary	Historical	15,080	4.924%	743	-	-	743
145	2019	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
146	2019	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
147	2019	The Dalles	Historical	46,282	5.224%	2,418	-	-	2,418
148	2019	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
149	2019	Yakima Roza	Historical	14	5.878%	1	-	-	1
150	2019	Bureau Direct	Historical	1,123,000	3.083%	34,620	-	(422)	34,197
151	2019	Bureau Direct	New	94,000	-	-	-	534	534
152	2019	Conservation	Historical	413,000	2.152%	8,887	-	-	8,887
153	2019	Construction (AS)	Historical	47,350	1.916%	907	-	(20)	888
154	2019	Corps	Historical	398,000	3.864%	15,380	-	-	15,380
155	2019	Corps	New	82,000	-	-	-	469	469
156	2019	Fish and Wildlife	Historical	436,000	3.242%	14,137	-	(309)	13,828
157	2019	Technology (G)	Historical	51,000	1.718%	876	-	-	876
158	2019	Float	Historical	-	-	(1,826)	-	-	(1,826)
159	**FY 2019**	**Subtotal:**		**4,899,809**		**176,262**	**-**	**251**	**176,513**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
160	2020	Albeni Falls	Historical	1,011	5.909%	60	-	-	60
161	2020	Boise	Historical	4,429	6.653%	295	-	-	295
162	2020	Bonneville 2nd Powerhouse	Historical	376	7.150%	27	-	-	27
163	2020	Bonneville Dam	Historical	134,525	5.267%	7,086	-	-	7,086
164	2020	Chief Joseph	Historical	31,356	4.624%	1,450	-	-	1,450
165	2020	Columbia Basin	Historical	95,175	5.626%	5,355	-	-	5,355
166	2020	Columbia River Fish Mitigation	Historical	1,684,919	4.197%	70,720	-	-	70,720
167	2020	Cougar	Historical	16,708	4.580%	765	-	-	765
168	2020	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
169	2020	Dworshak	Historical	12,451	6.236%	776	-	-	776
170	2020	Green Peter/Foster	Historical	745	4.476%	33	-	-	33
171	2020	Hills Creek	Historical	2,867	5.972%	171	-	-	171
172	2020	Hungry Horse Dam	Historical	5,391	4.962%	267	-	-	267
173	2020	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
174	2020	John Day	Historical	21,980	4.758%	1,046	-	-	1,046
175	2020	Libby	Historical	7,996	5.731%	458	-	-	458
176	2020	Little Goose	Historical	10,971	5.734%	629	-	-	629
177	2020	Lookout Dam	Historical	13,471	5.458%	735	-	-	735
178	2020	Lost Creek	Historical	154	5.774%	9	-	-	9
179	2020	Lower Granite	Historical	16,368	4.636%	759	-	-	759
180	2020	Lower Monument	Historical	11,449	5.079%	581	-	-	581
181	2020	Lower Snake Fish and Wildlife	Historical	7,598	5.744%	436	-	-	436
182	2020	McNary	Historical	14,461	4.829%	698	-	-	698
183	2020	Minidoka/Palisades	Historical	70,197	6.080%	4,268	-	-	4,268
184	2020	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
185	2020	The Dalles	Historical	44,291	5.137%	2,275	-	-	2,275
186	2020	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
187	2020	Yakima Roza	Historical	14	5.878%	1	-	-	1
188	2020	Bureau Direct	Historical	1,159,000	3.387%	39,255	-	(1,015)	38,240
189	2020	Conservation	Historical	413,000	2.152%	8,887	-	-	8,887
190	2020	Construction (AS)	Historical	48,050	2.011%	966	-	(94)	873
191	2020	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
192	2020	Fish and Wildlife	Historical	434,000	3.445%	14,950	-	-	14,950
193	2020	Replacements	New	218,435	2.335%	5,100	-	-	5,100
194	2020	Technology (G)	Historical	56,000	1.906%	1,067	-	-	1,067
195	2020	Float	Historical	-	-	(1,607)	-	-	(1,607)
196	**FY 2020**	**Subtotal:**		**5,090,708**		**190,249**	**-**	**(1,109)**	**189,140**
197	2021	Albeni Falls	Historical	1,011	5.909%	60	-	-	60
198	2021	Boise	Historical	3,331	6.489%	216	-	-	216
199	2021	Bonneville Dam	Historical	131,862	5.229%	6,896	-	-	6,896
200	2021	Chief Joseph	Historical	30,265	4.533%	1,372	-	-	1,372
201	2021	Columbia Basin	Historical	94,381	5.614%	5,298	-	-	5,298
202	2021	Columbia River Fish Mitigation	Historical	1,682,488	4.193%	70,546	-	-	70,546
203	2021	Cougar	Historical	16,708	4.580%	765	-	-	765
204	2021	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
205	2021	Dworshak	Historical	12,398	6.233%	773	-	-	773
206	2021	Green Peter/Foster	Historical	719	4.379%	31	-	-	31
207	2021	Hills Creek	Historical	2,839	5.960%	169	-	-	169
208	2021	Hungry Horse Dam	Historical	5,374	4.955%	266	-	-	266
209	2021	Ice Harbor	Historical	18,224	4.819%	878	-	-	878
210	2021	John Day	Historical	21,980	4.758%	1,046	-	-	1,046
211	2021	Libby	Historical	7,996	5.731%	458	-	-	458
212	2021	Little Goose	Historical	8,130	5.239%	426	-	-	426
213	2021	Lookout Dam	Historical	13,471	5.458%	735	-	-	735
214	2021	Lost Creek	Historical	154	5.774%	9	-	-	9
215	2021	Lower Granite	Historical	16,368	4.636%	759	-	-	759
216	2021	Lower Monument	Historical	11,449	5.079%	581	-	-	581
217	2021	Lower Snake Fish and Wildlife	Historical	7,598	5.744%	436	-	-	436
218	2021	McNary	Historical	14,461	4.829%	698	-	-	698
219	2021	Minidoka/Palisades	Historical	21,792	3.704%	807	-	-	807
220	2021	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
221	2021	The Dalles	Historical	44,291	5.137%	2,275	-	-	2,275
222	2021	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
223	2021	Yakima Roza	Historical	14	5.878%	1	-	-	1
224	2021	Bureau Direct	Historical	1,039,000	3.540%	36,783	-	(165)	36,618
225	2021	Conservation	Historical	413,000	2.152%	8,887	-	(80)	8,808
226	2021	Construction (AS)	Historical	29,950	2.569%	769	-	(34)	736
227	2021	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
228	2021	Fish and Wildlife	Historical	434,000	3.445%	14,950	-	-	14,950
229	2021	Replacements	Historical	218,435	4.670%	10,201	-	-	10,201
230	2021	Replacements	New	218,435	2.335%	5,100	-	-	5,100
231	2021	Technology (G)	Historical	56,000	1.447%	810	-	(85)	726
232	2021	Float	Historical	-	-	(1,676)	-	-	(1,676)
233	**FY 2021**	**Subtotal:**		**5,111,220**		**193,178**	**-**	**(363)**	**192,814**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
234	2022	Albeni Falls	Historical	580	4.988%	29	-	-	29
235	2022	Boise	Historical	1,065	5.082%	54	-	-	54
236	2022	Bonneville Dam	Historical	131,701	5.227%	6,884	-	-	6,884
237	2022	Chief Joseph	Historical	29,608	4.475%	1,325	-	-	1,325
238	2022	Columbia Basin	Historical	90,988	5.556%	5,056	-	-	5,056
239	2022	Columbia River Fish Mitigation	Historical	1,652,549	4.158%	68,713	-	-	68,713
240	2022	Cougar	Historical	16,682	4.576%	763	-	-	763
241	2022	Detroit Lake/Big Cliff	Historical	2,100	4.653%	98	-	-	98
242	2022	Dworshak	Historical	4,810	4.785%	230	-	-	230
243	2022	Green Peter/Foster	Historical	719	4.379%	31	-	-	31
244	2022	Hills Creek	Historical	209	3.888%	8	-	-	8
245	2022	Hungry Horse Dam	Historical	5,263	4.908%	258	-	-	258
246	2022	Ice Harbor	Historical	17,609	4.769%	840	-	-	840
247	2022	John Day	Historical	19,039	4.537%	864	-	-	864
248	2022	Libby	Historical	7,336	5.603%	411	-	-	411
249	2022	Little Goose	Historical	8,129	5.239%	426	-	-	426
250	2022	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
251	2022	Lost Creek	Historical	154	5.774%	9	-	-	9
252	2022	Lower Granite	Historical	15,691	4.528%	710	-	-	710
253	2022	Lower Monument	Historical	11,449	5.079%	581	-	-	581
254	2022	Lower Snake Fish and Wildlife	Historical	3,896	4.811%	187	-	-	187
255	2022	McNary	Historical	14,461	4.829%	698	-	-	698
256	2022	Minidoka/Palisades	Historical	19,286	3.256%	628	-	-	628
257	2022	RRP - Green Springs	Historical	11,148	5.874%	655	-	-	655
258	2022	The Dalles	Historical	41,703	5.076%	2,117	-	-	2,117
259	2022	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
260	2022	Yakima Roza	Historical	14	5.878%	1	-	-	1
261	2022	Bureau Direct	Historical	942,000	3.635%	34,242	-	-	34,242
262	2022	Conservation	Historical	394,000	2.134%	8,409	-	(58)	8,350
263	2022	Construction (AS)	Historical	22,950	2.833%	650	-	(24)	626
264	2022	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
265	2022	Fish and Wildlife	Historical	434,000	3.445%	14,950	-	-	14,950
266	2022	Replacements	Historical	436,871	4.670%	20,402	-	-	20,402
267	2022	Replacements	New	218,435	2.335%	5,100	-	-	5,100
268	2022	Technology (G)	Historical	21,000	2.635%	553	-	(5)	548
269	2022	Float	Historical	-	-	(1,633)	-	-	(1,633)
270	**FY 2022**	**Subtotal:**		**5,105,666**		**195,771**	**-**	**(87)**	**195,683**
271	2023	Albeni Falls	Historical	580	4.988%	29	-	-	29
272	2023	Boise	Historical	1,065	5.082%	54	-	-	54
273	2023	Bonneville Dam	Historical	107,256	5.022%	5,387	-	-	5,387
274	2023	Chief Joseph	Historical	29,608	4.475%	1,325	-	-	1,325
275	2023	Columbia Basin	Historical	38,289	5.117%	1,959	-	-	1,959
276	2023	Columbia River Fish Mitigation	Historical	1,629,314	4.131%	67,305	-	-	67,305
277	2023	Cougar	Historical	16,682	4.576%	763	-	-	763
278	2023	Detroit Lake/Big Cliff	Historical	1,817	4.463%	81	-	-	81
279	2023	Dworshak	Historical	4,810	4.785%	230	-	-	230
280	2023	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
281	2023	Hills Creek	Historical	202	3.813%	8	-	-	8
282	2023	Hungry Horse Dam	Historical	4,710	4.795%	226	-	-	226
283	2023	Ice Harbor	Historical	16,845	4.719%	795	-	-	795
284	2023	John Day	Historical	18,421	4.492%	827	-	-	827
285	2023	Libby	Historical	1,774	4.751%	84	-	-	84
286	2023	Little Goose	Historical	3,521	4.406%	155	-	-	155
287	2023	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
288	2023	Lost Creek	Historical	7	3.748%		-	-	
289	2023	Lower Granite	Historical	13,666	4.328%	591	-	-	591
290	2023	Lower Monument	Historical	8,147	4.756%	387	-	-	387
291	2023	Lower Snake Fish and Wildlife	Historical	3,571	4.714%	168	-	-	168
292	2023	McNary	Historical	13,414	4.747%	637	-	-	637
293	2023	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
294	2023	RRP - Green Springs	Historical	3	3.244%		-	-	
295	2023	The Dalles	Historical	41,703	5.076%	2,117	-	-	2,117
296	2023	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
297	2023	Bureau Direct	Historical	923,000	3.646%	33,649	-	(35)	33,614
298	2023	Conservation	Historical	378,000	1.928%	7,289	-	(947)	6,342
299	2023	Construction (AS)	Historical	17,150	3.588%	615	-	-	615
300	2023	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
301	2023	Fish and Wildlife	Historical	403,000	3.469%	13,981	-	-	13,981
302	2023	Replacements	Historical	655,306	4.670%	30,603	-	-	30,603
303	2023	Replacements	New	218,435	2.335%	5,100	-	-	5,100
304	2023	Technology (G)	Historical	10,000	3.730%	373	-	-	373
305	2023	Float	Historical	-	-	(1,628)	-	-	(1,628)
306	**FY 2023**	**Subtotal:**		**5,110,280**		**195,278**	**-**	**(982)**	**194,296**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
307	2024	Albeni Falls	Historical	580	4.988%	29	-	-	29
308	2024	Boise	Historical	1,065	5.082%	54	-	-	54
309	2024	Bonneville Dam	Historical	93,682	4.957%	4,644	-	-	4,644
310	2024	Chief Joseph	Historical	29,261	4.459%	1,305	-	-	1,305
311	2024	Columbia Basin	Historical	21,763	4.542%	988	-	-	988
312	2024	Columbia River Fish Mitigation	Historical	1,606,402	4.112%	66,062	-	-	66,062
313	2024	Cougar	Historical	16,682	4.576%	763	-	-	763
314	2024	Detroit Lake/Big Cliff	Historical	1,799	4.453%	80	-	-	80
315	2024	Dworshak	Historical	3,982	4.656%	185	-	-	185
316	2024	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
317	2024	Hills Creek	Historical	200	3.800%	8	-	-	8
318	2024	Hungry Horse Dam	Historical	4,710	4.795%	226	-	-	226
319	2024	Ice Harbor	Historical	10,315	4.292%	443	-	-	443
320	2024	John Day	Historical	14,911	4.284%	639	-	-	639
321	2024	Libby	Historical	1,774	4.751%	84	-	-	84
322	2024	Little Goose	Historical	3,494	4.398%	154	-	-	154
323	2024	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
324	2024	Lost Creek	Historical	7	3.748%		-	-	
325	2024	Lower Granite	Historical	11,535	4.121%	475	-	-	475
326	2024	Lower Monument	Historical	8,118	4.753%	386	-	-	386
327	2024	Lower Snake Fish and Wildlife	Historical	2,674	4.451%	119	-	-	119
328	2024	McNary	Historical	13,414	4.747%	637	-	-	637
329	2024	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
330	2024	RRP - Green Springs	Historical	3	3.244%		-	-	
331	2024	The Dalles	Historical	40,477	5.063%	2,049	-	-	2,049
332	2024	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
333	2024	Bureau Direct	Historical	923,000	3.636%	33,564	-	-	33,564
334	2024	Conservation	Historical	236,000	1.075%	2,538	-	(224)	2,314
335	2024	Construction (AS)	Historical	11,900	3.795%	452	-	-	452
336	2024	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
337	2024	Fish and Wildlife	Historical	403,000	3.483%	14,038	-	(244)	13,795
338	2024	Replacements	Historical	873,742	4.670%	40,804	-	-	40,804
339	2024	Replacements	New	218,435	2.335%	5,100	-	-	5,100
340	2024	Technology (G)	Historical	5,000	1.915%	96	-	-	96
341	2024	Float	Historical	-	-	(1,589)	-	-	(1,589)
342	**FY 2024**	**Subtotal:**		**5,107,910**		**196,499**	**-**	**(467)**	**196,031**
343	2025	Albeni Falls	Historical	580	4.988%	29	-	-	29
344	2025	Boise	Historical	1,065	5.082%	54	-	-	54
345	2025	Bonneville Dam	Historical	84,910	4.914%	4,172	-	-	4,172
346	2025	Chief Joseph	Historical	29,261	4.459%	1,305	-	-	1,305
347	2025	Columbia Basin	Historical	21,763	4.542%	988	-	-	988
348	2025	Columbia River Fish Mitigation	Historical	1,553,914	4.070%	63,241	-	-	63,241
349	2025	Cougar	Historical	16,682	4.576%	763	-	-	763
350	2025	Detroit Lake/Big Cliff	Historical	1,799	4.453%	80	-	-	80
351	2025	Dworshak	Historical	3,982	4.656%	185	-	-	185
352	2025	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
353	2025	Hills Creek	Historical	200	3.800%	8	-	-	8
354	2025	Hungry Horse Dam	Historical	4,710	4.795%	226	-	-	226
355	2025	Ice Harbor	Historical	6,994	3.777%	264	-	-	264
356	2025	John Day	Historical	12,081	4.029%	487	-	-	487
357	2025	Libby	Historical	1,774	4.751%	84	-	-	84
358	2025	Little Goose	Historical	3,426	4.379%	150	-	-	150
359	2025	Lookout Dam	Historical	8,373	5.052%	423	-	-	423
360	2025	Lost Creek	Historical	7	3.748%		-	-	
361	2025	Lower Granite	Historical	11,535	4.121%	475	-	-	475
362	2025	Lower Monument	Historical	4,695	4.300%	202	-	-	202
363	2025	Lower Snake Fish and Wildlife	Historical	2,444	4.364%	107	-	-	107
364	2025	McNary	Historical	7,276	4.218%	307	-	-	307
365	2025	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
366	2025	RRP - Green Springs	Historical	3	3.244%		-	-	
367	2025	The Dalles	Historical	40,296	5.062%	2,040	-	-	2,040
368	2025	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
369	2025	Bureau Direct	Historical	923,000	3.566%	32,915	-	(325)	32,590
370	2025	Conservation	Historical	139,000	1.355%	1,883	-	(75)	1,808
371	2025	Construction (AS)	Historical	5,950	3.890%	231	-	-	231
372	2025	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
373	2025	Fish and Wildlife	Historical	378,000	3.460%	13,080	-	-	13,080
374	2025	Replacements	Historical	1,092,177	4.670%	51,005	-	-	51,005
375	2025	Replacements	New	218,435	2.335%	5,100	-	-	5,100
376	2025	Float	Historical	-	-	(1,522)	-	-	(1,522)
377	**FY 2025**	**Subtotal:**		**5,115,944**		**200,025**	**-**	**(400)**	**199,626**
378	2026	Albeni Falls	Historical	580	4.988%	29	-	-	29
379	2026	Boise	Historical	1,065	5.082%	54	-	-	54
380	2026	Bonneville Dam	Historical	58,169	4.702%	2,735	-	-	2,735

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
381	2026	Chief Joseph	Historical	29,261	4.459%	1,305	-	-	1,305
382	2026	Columbia Basin	Historical	21,763	4.542%	988	-	-	988
383	2026	Columbia River Fish Mitigation	Historical	1,490,413	4.023%	59,967	-	-	59,967
384	2026	Cougar	Historical	13,060	4.354%	569	-	-	569
385	2026	Detroit Lake/Big Cliff	Historical	1,799	4.453%	80	-	-	80
386	2026	Dworshak	Historical	3,982	4.656%	185	-	-	185
387	2026	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
388	2026	Hills Creek	Historical	200	3.800%	8	-	-	8
389	2026	Hungry Horse Dam	Historical	4,710	4.795%	226	-	-	226
390	2026	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
391	2026	John Day	Historical	12,081	4.029%	487	-	-	487
392	2026	Libby	Historical	1,774	4.751%	84	-	-	84
393	2026	Little Goose	Historical	3,280	4.346%	143	-	-	143
394	2026	Lookout Dam	Historical	8,238	5.051%	416	-	-	416
395	2026	Lost Creek	Historical	7	3.748%		-	-	
396	2026	Lower Granite	Historical	11,494	4.117%	473	-	-	473
397	2026	Lower Monument	Historical	4,673	4.296%	201	-	-	201
398	2026	Lower Snake Fish and Wildlife	Historical	2,346	4.332%	102	-	-	102
399	2026	McNary	Historical	7,180	4.206%	302	-	-	302
400	2026	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
401	2026	RRP - Green Springs	Historical	3	3.244%		-	-	
402	2026	The Dalles	Historical	40,296	5.062%	2,040	-	-	2,040
403	2026	Yakima Chandler/Kenniwick	Historical	848	5.111%	43	-	-	43
404	2026	Bureau Direct	Historical	898,000	3.593%	32,266	-	-	32,266
405	2026	Conservation	Historical	70,000	1.213%	849	-	(533)	316
406	2026	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
407	2026	Fish and Wildlife	Historical	378,000	3.079%	11,640	-	(580)	11,060
408	2026	Replacements	Historical	1,310,612	4.670%	61,206	-	-	61,206
409	2026	Replacements	New	218,435	2.335%	5,100	-	-	5,100
410	2026	Float	Historical	-	-	(1,524)	-	-	(1,524)
411	**FY 2026**	**Subtotal:**		**5,139,977**		**201,933**	**-**	**(1,113)**	**200,820**
412	2027	Albeni Falls	Historical	580	4.988%	29	-	-	29
413	2027	Boise	Historical	1,065	5.082%	54	-	-	54
414	2027	Bonneville Dam	Historical	53,588	4.666%	2,500	-	-	2,500
415	2027	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
416	2027	Columbia Basin	Historical	21,763	4.542%	988	-	-	988
417	2027	Columbia River Fish Mitigation	Historical	1,475,128	4.012%	59,183	-	-	59,183
418	2027	Cougar	Historical	13,060	4.354%	569	-	-	569
419	2027	Detroit Lake/Big Cliff	Historical	1,576	4.358%	69	-	-	69
420	2027	Dworshak	Historical	3,220	4.545%	146	-	-	146
421	2027	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
422	2027	Hills Creek	Historical	154	3.404%	5	-	-	5
423	2027	Hungry Horse Dam	Historical	1,759	4.242%	75	-	-	75
424	2027	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
425	2027	John Day	Historical	9,254	3.694%	342	-	-	342
426	2027	Libby	Historical	1,774	4.751%	84	-	-	84
427	2027	Little Goose	Historical	3,280	4.346%	143	-	-	143
428	2027	Lookout Dam	Historical	883	4.435%	39	-	-	39
429	2027	Lost Creek	Historical	7	3.748%		-	-	
430	2027	Lower Granite	Historical	11,101	4.081%	453	-	-	453
431	2027	Lower Monument	Historical	4,146	4.191%	174	-	-	174
432	2027	Lower Snake Fish and Wildlife	Historical	2,342	4.331%	101	-	-	101
433	2027	McNary	Historical	6,630	4.130%	274	-	-	274
434	2027	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
435	2027	RRP - Green Springs	Historical	3	3.244%		-	-	
436	2027	The Dalles	Historical	4,277	4.528%	194	-	-	194
437	2027	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
438	2027	Bureau Direct	Historical	898,000	3.495%	31,384	-	(291)	31,093
439	2027	Conservation	Historical	31,000	0.440%	136	-	-	136
440	2027	Corps	Historical	521,000	4.041%	21,053	-	-	21,053
441	2027	Fish and Wildlife	Historical	298,000	3.037%	9,051	-	(431)	8,620
442	2027	Replacements	Historical	1,529,048	4.670%	71,407	-	-	71,407
443	2027	Replacements	New	218,435	2.335%	5,100	-	-	5,100
444	2027	Float	Historical	-	-	(1,527)	-	-	(1,527)
445	**FY 2027**	**Subtotal:**		**5,166,065**		**204,188**	**-**	**(722)**	**203,466**
446	2028	Albeni Falls	Historical	99	4.322%	4	-	-	4
447	2028	Boise	Historical	162	4.844%	8	-	-	8
448	2028	Bonneville Dam	Historical	33,863	4.398%	1,489	-	-	1,489
449	2028	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
450	2028	Columbia Basin	Historical	10,800	3.951%	427	-	-	427
451	2028	Columbia River Fish Mitigation	Historical	1,408,804	3.961%	55,805	-	-	55,805
452	2028	Cougar	Historical	4,929	3.082%	152	-	-	152
453	2028	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
454	2028	Dworshak	Historical	2,508	4.381%	110	-	-	110
455	2028	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
456	2028	Hills Creek	Historical	154	3.404%	5	-	-	5
457	2028	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
458	2028	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
459	2028	John Day	Historical	9,021	3.660%	330	-	-	330
460	2028	Libby	Historical	1,774	4.751%	84	-	-	84

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
461	2028	Little Goose	Historical	3,280	4.346%	143	-	-	143
462	2028	Lookout Dam	Historical	311	3.396%	11	-	-	11
463	2028	Lost Creek	Historical	7	3.748%		-	-	
464	2028	Lower Granite	Historical	11,101	4.081%	453	-	-	453
465	2028	Lower Monument	Historical	4,146	4.191%	174	-	-	174
466	2028	Lower Snake Fish and Wildlife	Historical	2,342	4.331%	101	-	-	101
467	2028	McNary	Historical	6,630	4.130%	274	-	-	274
468	2028	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
469	2028	RRP - Green Springs	Historical	3	3.244%		-	-	
470	2028	The Dalles	Historical	4,137	4.512%	187	-	-	187
471	2028	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
472	2028	Bureau Direct	Historical	863,000	3.308%	28,548	-	(564)	27,985
473	2028	Conservation	Historical	25,000	0.242%	60	-	(50)	10
474	2028	Corps	Historical	521,000	3.981%	20,740	-	-	20,740
475	2028	Fish and Wildlife	Historical	243,000	3.291%	7,997	-	-	7,997
476	2028	Replacements	Historical	1,747,483	4.670%	81,607	-	-	81,607
477	2028	Replacements	New	218,435	2.335%	5,100	-	-	5,100
478	2028	Float	Historical	-	-	(1,451)	-	-	(1,451)
479	**FY 2028**	**Subtotal:**		**5,178,992**		**204,595**	**-**	**(614)**	**203,981**
480	2029	Albeni Falls	Historical	99	4.322%	4	-	-	4
481	2029	Boise	Historical	86	4.707%	4	-	-	4
482	2029	Bonneville Dam	Historical	32,739	4.378%	1,433	-	-	1,433
483	2029	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
484	2029	Columbia Basin	Historical	9,871	3.852%	380	-	-	380
485	2029	Columbia River Fish Mitigation	Historical	1,371,818	3.933%	53,955	-	-	53,955
486	2029	Cougar	Historical	4,810	3.035%	146	-	-	146
487	2029	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
488	2029	Dworshak	Historical	2,508	4.381%	110	-	-	110
489	2029	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
490	2029	Hills Creek	Historical	154	3.404%	5	-	-	5
491	2029	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
492	2029	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
493	2029	John Day	Historical	9,021	3.660%	330	-	-	330
494	2029	Libby	Historical	1,774	4.751%	84	-	-	84
495	2029	Little Goose	Historical	3,280	4.346%	143	-	-	143
496	2029	Lookout Dam	Historical	311	3.396%	11	-	-	11
497	2029	Lost Creek	Historical	7	3.748%		-	-	
498	2029	Lower Granite	Historical	11,101	4.081%	453	-	-	453
499	2029	Lower Monument	Historical	4,146	4.191%	174	-	-	174
500	2029	Lower Snake Fish and Wildlife	Historical	2,342	4.331%	101	-	-	101
501	2029	McNary	Historical	6,630	4.130%	274	-	-	274
502	2029	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
503	2029	RRP - Green Springs	Historical	3	3.244%		-	-	
504	2029	The Dalles	Historical	4,137	4.512%	187	-	-	187
505	2029	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
506	2029	Bureau Direct	Historical	783,000	2.895%	22,671	-	(881)	21,790
507	2029	Corps	Historical	507,559	3.527%	17,900	-	(469)	17,432
508	2029	Fish and Wildlife	Historical	217,000	2.976%	6,459	-	(419)	6,040
509	2029	Replacements	Historical	1,965,919	4.670%	91,808	-	-	91,808
510	2029	Replacements	New	218,435	2.335%	5,100	-	-	5,100
511	2029	Float	Historical	-	-	(2,645)	-	-	(2,645)
512	**FY 2029**	**Subtotal:**		**5,213,752**		**201,327**	**-**	**(1,768)**	**199,558**
513	2030	Albeni Falls	Historical	99	4.322%	4	-	-	4
514	2030	Boise	Historical	86	4.707%	4	-	-	4
515	2030	Bonneville Dam	Historical	32,739	4.378%	1,433	-	-	1,433
516	2030	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
517	2030	Columbia Basin	Historical	9,871	3.852%	380	-	-	380
518	2030	Columbia River Fish Mitigation	Historical	1,240,215	3.873%	48,033	-	-	48,033
519	2030	Cougar	Historical	4,810	3.035%	146	-	-	146
520	2030	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
521	2030	Dworshak	Historical	2,508	4.381%	110	-	-	110
522	2030	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
523	2030	Hills Creek	Historical	154	3.404%	5	-	-	5
524	2030	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
525	2030	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
526	2030	John Day	Historical	8,420	3.600%	303	-	-	303
527	2030	Libby	Historical	1,774	4.751%	84	-	-	84
528	2030	Little Goose	Historical	3,280	4.346%	143	-	-	143
529	2030	Lookout Dam	Historical	311	3.396%	11	-	-	11
530	2030	Lost Creek	Historical	7	3.748%		-	-	
531	2030	Lower Granite	Historical	11,101	4.081%	453	-	-	453
532	2030	Lower Monument	Historical	3,861	4.168%	161	-	-	161
533	2030	Lower Snake Fish and Wildlife	Historical	1,963	4.298%	84	-	-	84
534	2030	McNary	Historical	2,550	3.537%	90	-	-	90
535	2030	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
536	2030	RRP - Green Springs	Historical	3	3.244%		-	-	
537	2030	The Dalles	Historical	2,107	4.524%	95	-	-	95
538	2030	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
539	2030	Bureau Direct	Historical	612,000	2.823%	17,279	-	(830)	16,449
540	2030	Corps	Historical	398,000	3.864%	15,380	-	(131)	15,250

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
541	2030	Fish and Wildlife	Historical	161,000	3.599%	5,794	-	-	5,794
542	2030	Replacements	Historical	2,184,354	4.670%	102,009	-	-	102,009
543	2030	Replacements	New	218,435	2.335%	5,100	-	-	5,100
544	2030	Float	Historical	-	-	(2,267)	-	-	(2,267)
545	**FY 2030**	**Subtotal:**		**4,956,651**		**197,074**	**-**	**(961)**	**196,113**
546	2031	Albeni Falls	Historical	99	4.322%	4	-	-	4
547	2031	Boise	Historical	86	4.707%	4	-	-	4
548	2031	Bonneville Dam	Historical	32,557	4.377%	1,425	-	-	1,425
549	2031	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
550	2031	Columbia Basin	Historical	7,884	3.688%	291	-	-	291
551	2031	Columbia River Fish Mitigation	Historical	1,005,423	3.727%	37,468	-	-	37,468
552	2031	Cougar	Historical	4,701	3.001%	141	-	-	141
553	2031	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
554	2031	Dworshak	Historical	2,435	4.377%	107	-	-	107
555	2031	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
556	2031	Hills Creek	Historical	154	3.404%	5	-	-	5
557	2031	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
558	2031	Ice Harbor	Historical	6,944	3.768%	262	-	-	262
559	2031	John Day	Historical	8,420	3.600%	303	-	-	303
560	2031	Libby	Historical	1,774	4.751%	84	-	-	84
561	2031	Little Goose	Historical	3,280	4.346%	143	-	-	143
562	2031	Lookout Dam	Historical	311	3.396%	11	-	-	11
563	2031	Lost Creek	Historical	7	3.748%		-	-	
564	2031	Lower Granite	Historical	11,101	4.081%	453	-	-	453
565	2031	Lower Monument	Historical	3,861	4.168%	161	-	-	161
566	2031	Lower Snake Fish and Wildlife	Historical	1,963	4.298%	84	-	-	84
567	2031	McNary	Historical	2,550	3.537%	90	-	-	90
568	2031	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
569	2031	RRP - Green Springs	Historical	3	3.244%		-	-	
570	2031	The Dalles	Historical	2,107	4.524%	95	-	-	95
571	2031	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
572	2031	Bureau Direct	Historical	479,000	2.661%	12,748	-	(705)	12,043
573	2031	Corps	Historical	383,000	3.305%	12,659	-	(783)	11,877
574	2031	Fish and Wildlife	Historical	153,000	3.751%	5,740	-	(3)	5,736
575	2031	Replacements	Historical	2,402,789	4.670%	112,210	-	-	112,210
576	2031	Replacements	New	218,435	2.335%	5,100	-	-	5,100
577	2031	Float	Historical	-	-	(2,495)	-	-	(2,495)
578	**FY 2031**	**Subtotal:**		**4,781,943**		**189,069**	**-**	**(1,491)**	**187,577**
579	2032	Albeni Falls	Historical	99	4.322%	4	-	-	4
580	2032	Boise	Historical	68	4.763%	3	-	-	3
581	2032	Bonneville Dam	Historical	30,111	4.367%	1,315	-	-	1,315
582	2032	Chief Joseph	Historical	28,269	4.435%	1,254	-	-	1,254
583	2032	Columbia Basin	Historical	7,884	3.688%	291	-	-	291
584	2032	Columbia River Fish Mitigation	Historical	910,691	3.659%	33,323	-	-	33,323
585	2032	Cougar	Historical	4,701	3.001%	141	-	-	141
586	2032	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
587	2032	Dworshak	Historical	10	4.877%		-	-	
588	2032	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
589	2032	Hills Creek	Historical	154	3.404%	5	-	-	5
590	2032	Hungry Horse Dam	Historical	1,466	4.090%	60	-	-	60
591	2032	Ice Harbor	Historical	4,329	3.401%	147	-	-	147
592	2032	John Day	Historical	8,420	3.600%	303	-	-	303
593	2032	Libby	Historical	1,774	4.751%	84	-	-	84
594	2032	Little Goose	Historical	109	3.493%	4	-	-	4
595	2032	Lookout Dam	Historical	311	3.396%	11	-	-	11
596	2032	Lost Creek	Historical	7	3.748%		-	-	
597	2032	Lower Granite	Historical	5,432	3.775%	205	-	-	205
598	2032	Lower Monument	Historical	1,529	3.852%	59	-	-	59
599	2032	Lower Snake Fish and Wildlife	Historical	1,963	4.298%	84	-	-	84
600	2032	McNary	Historical	2,550	3.537%	90	-	-	90
601	2032	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
602	2032	RRP - Green Springs	Historical	3	3.244%		-	-	
603	2032	The Dalles	Historical	2,107	4.524%	95	-	-	95
604	2032	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
605	2032	Bureau Direct	Historical	315,000	1.824%	5,747	-	(1,227)	4,520
606	2032	Corps	Historical	225,000	2.787%	6,271	-	(448)	5,824
607	2032	Fish and Wildlife	Historical	140,000	2.650%	3,710	-	-	3,710
608	2032	Replacements	Historical	2,621,225	4.670%	122,411	-	-	122,411
609	2032	Replacements	New	218,435	2.335%	5,100	-	-	5,100
610	2032	Float	Historical	-	-	(2,991)	-	-	(2,991)
611	**FY 2032**	**Subtotal:**		**4,551,972**		**178,391**	**-**	**(1,675)**	**176,717**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
612	2033	Albeni Falls	Historical	57	4.375%	2	-	-	2
613	2033	Boise	Historical	68	4.763%	3	-	-	3
614	2033	Bonneville Dam	Historical	25,942	4.373%	1,134	-	-	1,134
615	2033	Chief Joseph	Historical	3,542	4.856%	172	-	-	172
616	2033	Columbia Basin	Historical	7,008	3.618%	254	-	-	254
617	2033	Columbia River Fish Mitigation	Historical	792,184	3.588%	28,420	-	-	28,420
618	2033	Cougar	Historical	4,521	2.947%	133	-	-	133
619	2033	Detroit Lake/Big Cliff	Historical	545	2.908%	16	-	-	16
620	2033	Dworshak	Historical	10	4.877%		-	-	
621	2033	Green Peter/Foster	Historical	519	3.804%	20	-	-	20
622	2033	Hills Creek	Historical	154	3.404%	5	-	-	5
623	2033	Hungry Horse Dam	Historical	686	3.908%	27	-	-	27
624	2033	Ice Harbor	Historical	4,123	3.358%	138	-	-	138
625	2033	John Day	Historical	8,064	3.571%	288	-	-	288
626	2033	Libby	Historical	1,734	4.763%	83	-	-	83
627	2033	Little Goose	Historical	79	3.203%	3	-	-	3
628	2033	Lookout Dam	Historical	311	3.396%	11	-	-	11
629	2033	Lost Creek	Historical	7	3.748%		-	-	
630	2033	Lower Granite	Historical	4,276	3.647%	156	-	-	156
631	2033	Lower Monument	Historical	1,529	3.852%	59	-	-	59
632	2033	Lower Snake Fish and Wildlife	Historical	418	4.016%	17	-	-	17
633	2033	McNary	Historical	2,550	3.537%	90	-	-	90
634	2033	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
635	2033	RRP - Green Springs	Historical	3	3.244%		-	-	
636	2033	The Dalles	Historical	2,107	4.524%	95	-	-	95
637	2033	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
638	2033	Bureau Direct	Historical	154,000	0.825%	1,271	-	(93)	1,177
639	2033	Corps	Historical	96,753	3.036%	2,937	-	(465)	2,473
640	2033	Replacements	Historical	2,839,660	4.670%	132,612	-	-	132,612
641	2033	Replacements	New	218,435	2.335%	5,100	-	-	5,100
642	2033	Float	Historical	-	-	(3,139)	-	-	(3,139)
643	**FY 2033**	**Subtotal:**		**4,188,544**		**170,534**	**-**	**(558)**	**169,975**
644	2034	Albeni Falls	Historical	57	4.375%	2	-	-	2
645	2034	Boise	Historical	68	4.763%	3	-	-	3
646	2034	Bonneville Dam	Historical	14,979	4.828%	723	-	-	723
647	2034	Chief Joseph	Historical	3,538	4.857%	172	-	-	172
648	2034	Columbia Basin	Historical	5,266	3.574%	188	-	-	188
649	2034	Columbia River Fish Mitigation	Historical	354,374	3.334%	11,816	-	-	11,816
650	2034	Cougar	Historical	4,227	2.891%	122	-	-	122
651	2034	Detroit Lake/Big Cliff	Historical	528	2.875%	15	-	-	15
652	2034	Dworshak	Historical	10	4.877%		-	-	
653	2034	Green Peter/Foster	Historical	47	3.324%	2	-	-	2
654	2034	Hills Creek	Historical	142	3.375%	5	-	-	5
655	2034	Hungry Horse Dam	Historical	171	4.373%	7	-	-	7
656	2034	Ice Harbor	Historical	3,304	3.261%	108	-	-	108
657	2034	John Day	Historical	7,890	3.567%	281	-	-	281
658	2034	Libby	Historical	1,582	4.860%	77	-	-	77
659	2034	Little Goose	Historical	79	3.203%	3	-	-	3
660	2034	Lookout Dam	Historical	294	3.375%	10	-	-	10
661	2034	Lower Granite	Historical	1,623	3.274%	53	-	-	53
662	2034	Lower Monument	Historical	99	3.514%	3	-	-	3
663	2034	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
664	2034	McNary	Historical	1,226	3.230%	40	-	-	40
665	2034	Minidoka/Palisades	Historical	19,244	3.250%	625	-	-	625
666	2034	RRP - Green Springs	Historical	3	3.244%		-	-	
667	2034	The Dalles	Historical	2,107	4.524%	95	-	-	95
668	2034	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
669	2034	Bureau Direct	Historical	85,418	0.268%	229	-	(53)	176
670	2034	Corps	Historical	2,272	0.338%	8	-	(1)	6
671	2034	Replacements	Historical	3,058,096	4.529%	138,506	-	-	138,506
672	2034	Replacements	New	218,435	2.335%	5,100	-	-	5,100
673	2034	Float	Historical	-	-	(3,107)	-	-	(3,107)
674	**FY 2034**	**Subtotal:**		**3,785,169**		**155,094**	**-**	**(54)**	**155,039**
675	2035	Albeni Falls	Historical	57	4.375%	2	-	-	2
676	2035	Boise	Historical	64	4.875%	3	-	-	3
677	2035	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
678	2035	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
679	2035	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
680	2035	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
681	2035	Dworshak	Historical	10	4.877%		-	-	
682	2035	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
683	2035	Ice Harbor	Historical	14	4.874%	1	-	-	1
684	2035	John Day	Historical	1,548	4.375%	68	-	-	68
685	2035	Libby	Historical	1,567	4.875%	76	-	-	76
686	2035	Little Goose	Historical	13	4.877%	1	-	-	1
687	2035	Lower Granite	Historical	24	4.875%	1	-	-	1
688	2035	Lower Monument	Historical	9	4.871%		-	-	
689	2035	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
690	2035	McNary	Historical	215	4.875%	10	-	-	10
691	2035	The Dalles	Historical	1,651	4.875%	80	-	-	80
692	2035	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
693	2035	Replacements	Historical	3,092,085	4.184%	129,369	-	-	129,369
694	2035	Replacements	New	218,435	2.335%	5,100	-	-	5,100
695	2035	Float	Historical	-	-	(3,104)	-	-	(3,104)
696	**FY 2035**	**Subtotal:**		**3,372,755**		**134,384**	**-**	**-**	**134,384**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
697	2036	Albeni Falls	Historical	57	4.375%	2	-	-	2
698	2036	Boise	Historical	64	4.875%	3	-	-	3
699	2036	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
700	2036	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
701	2036	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
702	2036	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
703	2036	Dworshak	Historical	10	4.877%		-	-	
704	2036	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
705	2036	Ice Harbor	Historical	14	4.874%	1	-	-	1
706	2036	John Day	Historical	1,548	4.375%	68	-	-	68
707	2036	Libby	Historical	1,567	4.875%	76	-	-	76
708	2036	Little Goose	Historical	13	4.877%	1	-	-	1
709	2036	Lower Granite	Historical	24	4.875%	1	-	-	1
710	2036	Lower Monument	Historical	9	4.871%		-	-	
711	2036	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
712	2036	McNary	Historical	215	4.875%	10	-	-	10
713	2036	The Dalles	Historical	1,651	4.875%	80	-	-	80
714	2036	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
715	2036	Replacements	Historical	2,666,796	4.108%	109,540	-	-	109,540
716	2036	Replacements	New	218,435	2.335%	5,100	-	-	5,100
717	2036	Float	Historical	-	-	(3,147)	-	-	(3,147)
718	**FY 2036**	**Subtotal:**		**2,947,465**		**114,512**	**-**	**-**	**114,512**
719	2037	Albeni Falls	Historical	57	4.375%	2	-	-	2
720	2037	Boise	Historical	64	4.875%	3	-	-	3
721	2037	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
722	2037	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
723	2037	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
724	2037	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
725	2037	Dworshak	Historical	10	4.877%		-	-	
726	2037	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
727	2037	Ice Harbor	Historical	14	4.874%	1	-	-	1
728	2037	John Day	Historical	1,548	4.375%	68	-	-	68
729	2037	Libby	Historical	1,567	4.875%	76	-	-	76
730	2037	Little Goose	Historical	13	4.877%	1	-	-	1
731	2037	Lower Granite	Historical	24	4.875%	1	-	-	1
732	2037	Lower Monument	Historical	9	4.871%		-	-	
733	2037	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
734	2037	McNary	Historical	215	4.875%	10	-	-	10
735	2037	The Dalles	Historical	1,651	4.875%	80	-	-	80
736	2037	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
737	2037	Replacements	Historical	2,242,857	3.965%	88,938	-	-	88,938
738	2037	Replacements	New	218,435	2.335%	5,100	-	-	5,100
739	2037	Float	Historical	-	-	(3,193)	-	-	(3,193)
740	**FY 2037**	**Subtotal:**		**2,523,527**		**93,864**	**-**	**-**	**93,864**
741	2038	Albeni Falls	Historical	57	4.375%	2	-	-	2
742	2038	Boise	Historical	64	4.875%	3	-	-	3
743	2038	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
744	2038	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
745	2038	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
746	2038	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
747	2038	Dworshak	Historical	10	4.877%		-	-	
748	2038	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
749	2038	Ice Harbor	Historical	14	4.874%	1	-	-	1
750	2038	John Day	Historical	1,548	4.375%	68	-	-	68
751	2038	Libby	Historical	1,567	4.875%	76	-	-	76
752	2038	Little Goose	Historical	13	4.877%	1	-	-	1
753	2038	Lower Granite	Historical	24	4.875%	1	-	-	1
754	2038	Lower Monument	Historical	9	4.871%		-	-	
755	2038	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
756	2038	McNary	Historical	215	4.875%	10	-	-	10
757	2038	The Dalles	Historical	1,651	4.875%	80	-	-	80
758	2038	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
759	2038	Replacements	Historical	1,784,486	3.721%	66,401	-	-	66,401
760	2038	Replacements	New	218,435	2.335%	5,100	-	-	5,100
761	2038	Float	Historical	-	-	(3,283)	-	-	(3,283)
762	**FY 2038**	**Subtotal:**		**2,065,155**		**71,237**	**-**	**-**	**71,237**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
763	2039	Albeni Falls	Historical	57	4.375%	2	-	-	2
764	2039	Boise	Historical	64	4.875%	3	-	-	3
765	2039	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
766	2039	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
767	2039	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
768	2039	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
769	2039	Dworshak	Historical	10	4.877%		-	-	
770	2039	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
771	2039	Ice Harbor	Historical	14	4.874%	1	-	-	1
772	2039	John Day	Historical	1,548	4.375%	68	-	-	68
773	2039	Libby	Historical	1,567	4.875%	76	-	-	76
774	2039	Little Goose	Historical	13	4.877%	1	-	-	1
775	2039	Lower Granite	Historical	24	4.875%	1	-	-	1
776	2039	Lower Monument	Historical	9	4.871%		-	-	
777	2039	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
778	2039	McNary	Historical	215	4.875%	10	-	-	10
779	2039	The Dalles	Historical	1,651	4.875%	80	-	-	80
780	2039	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
781	2039	Replacements	Historical	1,277,687	3.266%	41,732	-	-	41,732
782	2039	Replacements	New	218,435	2.335%	5,100	-	-	5,100
783	2039	Float	Historical	-	-	(3,475)	-	-	(3,475)
784	**FY 2039**	**Subtotal:**		**1,558,357**		**46,376**	**-**	**-**	**46,376**
785	2040	Albeni Falls	Historical	57	4.375%	2	-	-	2
786	2040	Boise	Historical	64	4.875%	3	-	-	3
787	2040	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
788	2040	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
789	2040	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
790	2040	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
791	2040	Dworshak	Historical	10	4.877%		-	-	
792	2040	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
793	2040	Ice Harbor	Historical	14	4.874%	1	-	-	1
794	2040	John Day	Historical	1,548	4.375%	68	-	-	68
795	2040	Libby	Historical	1,567	4.875%	76	-	-	76
796	2040	Little Goose	Historical	13	4.877%	1	-	-	1
797	2040	Lower Granite	Historical	24	4.875%	1	-	-	1
798	2040	Lower Monument	Historical	9	4.871%		-	-	
799	2040	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
800	2040	McNary	Historical	215	4.875%	10	-	-	10
801	2040	The Dalles	Historical	1,651	4.875%	80	-	-	80
802	2040	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
803	2040	Replacements	Historical	727,976	2.335%	16,998	-	-	16,998
804	2040	Replacements	New	218,435	2.335%	5,100	-	-	5,100
805	2040	Float	Historical	-	-	(3,541)	-	-	(3,541)
806	**FY 2040**	**Subtotal:**		**1,008,646**		**21,577**	**-**	**-**	**21,577**
807	2041	Albeni Falls	Historical	57	4.375%	2	-	-	2
808	2041	Boise	Historical	64	4.875%	3	-	-	3
809	2041	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
810	2041	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
811	2041	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
812	2041	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
813	2041	Dworshak	Historical	10	4.877%		-	-	
814	2041	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
815	2041	Ice Harbor	Historical	14	4.874%	1	-	-	1
816	2041	John Day	Historical	1,548	4.375%	68	-	-	68
817	2041	Libby	Historical	1,567	4.875%	76	-	-	76
818	2041	Little Goose	Historical	13	4.877%	1	-	-	1
819	2041	Lower Granite	Historical	24	4.875%	1	-	-	1
820	2041	Lower Monument	Historical	9	4.871%		-	-	
821	2041	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
822	2041	McNary	Historical	215	4.875%	10	-	-	10
823	2041	The Dalles	Historical	1,651	4.875%	80	-	-	80
824	2041	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
825	2041	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
826	2041	Replacements	New	218,435	2.335%	5,100	-	-	5,100
827	2041	Float	Historical	-	-	(3,623)	-	-	(3,623)
828	**FY 2041**	**Subtotal:**		**499,105**		**9,597**	**-**	**-**	**9,597**
829	2042	Albeni Falls	Historical	57	4.375%	2	-	-	2
830	2042	Boise	Historical	64	4.875%	3	-	-	3
831	2042	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
832	2042	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
833	2042	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
834	2042	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
835	2042	Dworshak	Historical	10	4.877%		-	-	
836	2042	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
837	2042	Ice Harbor	Historical	14	4.874%	1	-	-	1
838	2042	John Day	Historical	1,548	4.375%	68	-	-	68
839	2042	Libby	Historical	1,567	4.875%	76	-	-	76
840	2042	Little Goose	Historical	13	4.877%	1	-	-	1

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
841	2042	Lower Granite	Historical	24	4.875%	1	-	-	1
842	2042	Lower Monument	Historical	9	4.871%		-	-	
843	2042	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
844	2042	McNary	Historical	215	4.875%	10	-	-	10
845	2042	The Dalles	Historical	1,651	4.875%	80	-	-	80
846	2042	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
847	2042	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
848	2042	Replacements	New	218,435	2.335%	5,100	-	-	5,100
849	2042	Float	Historical	-	-	(3,623)	-	-	(3,623)
850	**FY 2042**	**Subtotal:**		**499,105**		**9,597**	**-**	**-**	**9,597**
851	2043	Albeni Falls	Historical	57	4.375%	2	-	-	2
852	2043	Boise	Historical	64	4.875%	3	-	-	3
853	2043	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
854	2043	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
855	2043	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
856	2043	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
857	2043	Dworshak	Historical	10	4.877%		-	-	
858	2043	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
859	2043	Ice Harbor	Historical	14	4.874%	1	-	-	1
860	2043	John Day	Historical	1,548	4.375%	68	-	-	68
861	2043	Libby	Historical	1,567	4.875%	76	-	-	76
862	2043	Little Goose	Historical	13	4.877%	1	-	-	1
863	2043	Lower Granite	Historical	24	4.875%	1	-	-	1
864	2043	Lower Monument	Historical	9	4.871%		-	-	
865	2043	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
866	2043	McNary	Historical	215	4.875%	10	-	-	10
867	2043	The Dalles	Historical	1,651	4.875%	80	-	-	80
868	2043	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
869	2043	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
870	2043	Replacements	New	218,435	2.335%	5,100	-	-	5,100
871	2043	Float	Historical	-	-	(3,623)	-	-	(3,623)
872	**FY 2043**	**Subtotal:**		**499,105**		**9,597**	**-**	**-**	**9,597**
873	2044	Albeni Falls	Historical	57	4.375%	2	-	-	2
874	2044	Boise	Historical	64	4.875%	3	-	-	3
875	2044	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
876	2044	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
877	2044	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
878	2044	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
879	2044	Dworshak	Historical	10	4.877%		-	-	
880	2044	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
881	2044	Ice Harbor	Historical	14	4.874%	1	-	-	1
882	2044	John Day	Historical	1,548	4.375%	68	-	-	68
883	2044	Libby	Historical	1,567	4.875%	76	-	-	76
884	2044	Little Goose	Historical	13	4.877%	1	-	-	1
885	2044	Lower Granite	Historical	24	4.875%	1	-	-	1
886	2044	Lower Monument	Historical	9	4.871%		-	-	
887	2044	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
888	2044	McNary	Historical	215	4.875%	10	-	-	10
889	2044	The Dalles	Historical	1,651	4.875%	80	-	-	80
890	2044	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
891	2044	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
892	2044	Replacements	New	218,435	2.335%	5,100	-	-	5,100
893	2044	Float	Historical	-	-	(3,120)	-	-	(3,120)
894	**FY 2044**	**Subtotal:**		**499,105**		**10,100**	**-**	**-**	**10,100**
895	2045	Albeni Falls	Historical	57	4.375%	2	-	-	2
896	2045	Boise	Historical	64	4.875%	3	-	-	3
897	2045	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
898	2045	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
899	2045	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
900	2045	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
901	2045	Dworshak	Historical	10	4.877%		-	-	
902	2045	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
903	2045	Ice Harbor	Historical	14	4.874%	1	-	-	1
904	2045	John Day	Historical	1,548	4.375%	68	-	-	68
905	2045	Libby	Historical	1,567	4.875%	76	-	-	76
906	2045	Little Goose	Historical	13	4.877%	1	-	-	1
907	2045	Lower Granite	Historical	24	4.875%	1	-	-	1
908	2045	Lower Monument	Historical	9	4.871%		-	-	
909	2045	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
910	2045	McNary	Historical	215	4.875%	10	-	-	10
911	2045	The Dalles	Historical	1,651	4.875%	80	-	-	80
912	2045	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
913	2045	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
914	2045	Replacements	New	218,435	2.335%	5,100	-	-	5,100
915	2045	Float	Historical	-	-	(1,623)	-	-	(1,623)
916	**FY 2045**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
917	2046	Albeni Falls	Historical	57	4.375%	2	-	-	2
918	2046	Boise	Historical	64	4.875%	3	-	-	3
919	2046	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
920	2046	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
921	2046	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
922	2046	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
923	2046	Dworshak	Historical	10	4.877%		-	-	
924	2046	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
925	2046	Ice Harbor	Historical	14	4.874%	1	-	-	1
926	2046	John Day	Historical	1,548	4.375%	68	-	-	68
927	2046	Libby	Historical	1,567	4.875%	76	-	-	76
928	2046	Little Goose	Historical	13	4.877%	1	-	-	1
929	2046	Lower Granite	Historical	24	4.875%	1	-	-	1
930	2046	Lower Monument	Historical	9	4.871%		-	-	
931	2046	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
932	2046	McNary	Historical	215	4.875%	10	-	-	10
933	2046	The Dalles	Historical	1,651	4.875%	80	-	-	80
934	2046	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
935	2046	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
936	2046	Replacements	New	218,435	2.335%	5,100	-	-	5,100
937	2046	Float	Historical	-	-	(1,623)	-	-	(1,623)
938	**FY 2046**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
939	2047	Albeni Falls	Historical	57	4.375%	2	-	-	2
940	2047	Boise	Historical	64	4.875%	3	-	-	3
941	2047	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
942	2047	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
943	2047	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
944	2047	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
945	2047	Dworshak	Historical	10	4.877%		-	-	
946	2047	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
947	2047	Ice Harbor	Historical	14	4.874%	1	-	-	1
948	2047	John Day	Historical	1,548	4.375%	68	-	-	68
949	2047	Libby	Historical	1,567	4.875%	76	-	-	76
950	2047	Little Goose	Historical	13	4.877%	1	-	-	1
951	2047	Lower Granite	Historical	24	4.875%	1	-	-	1
952	2047	Lower Monument	Historical	9	4.871%		-	-	
953	2047	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
954	2047	McNary	Historical	215	4.875%	10	-	-	10
955	2047	The Dalles	Historical	1,651	4.875%	80	-	-	80
956	2047	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
957	2047	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
958	2047	Replacements	New	218,435	2.335%	5,100	-	-	5,100
959	2047	Float	Historical	-	-	(1,623)	-	-	(1,623)
960	**FY 2047**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
961	2048	Albeni Falls	Historical	57	4.375%	2	-	-	2
962	2048	Boise	Historical	64	4.875%	3	-	-	3
963	2048	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
964	2048	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
965	2048	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
966	2048	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
967	2048	Dworshak	Historical	10	4.877%		-	-	
968	2048	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
969	2048	Ice Harbor	Historical	14	4.874%	1	-	-	1
970	2048	John Day	Historical	1,548	4.375%	68	-	-	68
971	2048	Libby	Historical	1,567	4.875%	76	-	-	76
972	2048	Little Goose	Historical	13	4.877%	1	-	-	1
973	2048	Lower Granite	Historical	24	4.875%	1	-	-	1
974	2048	Lower Monument	Historical	9	4.871%		-	-	
975	2048	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
976	2048	McNary	Historical	215	4.875%	10	-	-	10
977	2048	The Dalles	Historical	1,651	4.875%	80	-	-	80
978	2048	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
979	2048	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
980	2048	Replacements	New	218,435	2.335%	5,100	-	-	5,100
981	2048	Float	Historical	-	-	(1,623)	-	-	(1,623)
982	**FY 2048**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
983	2049	Albeni Falls	Historical	57	4.375%	2	-	-	2
984	2049	Boise	Historical	64	4.875%	3	-	-	3
985	2049	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
986	2049	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
987	2049	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
988	2049	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
989	2049	Dworshak	Historical	10	4.877%		-	-	
990	2049	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
991	2049	Ice Harbor	Historical	14	4.874%	1	-	-	1
992	2049	John Day	Historical	1,548	4.375%	68	-	-	68
993	2049	Libby	Historical	1,567	4.875%	76	-	-	76
994	2049	Little Goose	Historical	13	4.877%	1	-	-	1
995	2049	Lower Granite	Historical	24	4.875%	1	-	-	1
996	2049	Lower Monument	Historical	9	4.871%		-	-	
997	2049	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
998	2049	McNary	Historical	215	4.875%	10	-	-	10
999	2049	The Dalles	Historical	1,651	4.875%	80	-	-	80
1000	2049	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1001	2049	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1002	2049	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1003	2049	Float	Historical	-	-	(1,623)	-	-	(1,623)
1004	**FY 2049**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
1005	2050	Albeni Falls	Historical	57	4.375%	2	-	-	2
1006	2050	Boise	Historical	64	4.875%	3	-	-	3
1007	2050	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1008	2050	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1009	2050	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1010	2050	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1011	2050	Dworshak	Historical	10	4.877%		-	-	
1012	2050	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1013	2050	Ice Harbor	Historical	14	4.874%	1	-	-	1
1014	2050	John Day	Historical	1,548	4.375%	68	-	-	68
1015	2050	Libby	Historical	1,567	4.875%	76	-	-	76
1016	2050	Little Goose	Historical	13	4.877%	1	-	-	1
1017	2050	Lower Granite	Historical	24	4.875%	1	-	-	1
1018	2050	Lower Monument	Historical	9	4.871%		-	-	
1019	2050	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1020	2050	McNary	Historical	215	4.875%	10	-	-	10
1021	2050	The Dalles	Historical	1,651	4.875%	80	-	-	80
1022	2050	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1023	2050	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1024	2050	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1025	2050	Float	Historical	-	-	(1,623)	-	-	(1,623)
1026	**FY 2050**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
1027	2051	Albeni Falls	Historical	57	4.375%	2	-	-	2
1028	2051	Boise	Historical	64	4.875%	3	-	-	3
1029	2051	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1030	2051	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1031	2051	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1032	2051	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1033	2051	Dworshak	Historical	10	4.877%		-	-	
1034	2051	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1035	2051	Ice Harbor	Historical	14	4.874%	1	-	-	1
1036	2051	John Day	Historical	1,548	4.375%	68	-	-	68
1037	2051	Libby	Historical	1,567	4.875%	76	-	-	76
1038	2051	Little Goose	Historical	13	4.877%	1	-	-	1
1039	2051	Lower Granite	Historical	24	4.875%	1	-	-	1
1040	2051	Lower Monument	Historical	9	4.871%		-	-	
1041	2051	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1042	2051	McNary	Historical	215	4.875%	10	-	-	10
1043	2051	The Dalles	Historical	1,651	4.875%	80	-	-	80
1044	2051	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1045	2051	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1046	2051	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1047	2051	Float	Historical	-	-	(1,623)	-	-	(1,623)
1048	**FY 2051**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
1049	2052	Albeni Falls	Historical	57	4.375%	2	-	-	2
1050	2052	Boise	Historical	64	4.875%	3	-	-	3
1051	2052	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1052	2052	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1053	2052	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1054	2052	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1055	2052	Dworshak	Historical	10	4.877%		-	-	
1056	2052	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1057	2052	Ice Harbor	Historical	14	4.874%	1	-	-	1
1058	2052	John Day	Historical	1,548	4.375%	68	-	-	68
1059	2052	Libby	Historical	1,567	4.875%	76	-	-	76
1060	2052	Little Goose	Historical	13	4.877%	1	-	-	1
1061	2052	Lower Granite	Historical	24	4.875%	1	-	-	1
1062	2052	Lower Monument	Historical	9	4.871%		-	-	
1063	2052	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1064	2052	McNary	Historical	215	4.875%	10	-	-	10
1065	2052	The Dalles	Historical	1,651	4.875%	80	-	-	80
1066	2052	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1067	2052	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1068	2052	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1069	2052	Float	Historical	-	-	(1,623)	-	-	(1,623)
1070	**FY 2052**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
1071	2053	Albeni Falls	Historical	57	4.375%	2	-	-	2
1072	2053	Boise	Historical	64	4.875%	3	-	-	3
1073	2053	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1074	2053	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1075	2053	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1076	2053	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1077	2053	Dworshak	Historical	10	4.877%		-	-	
1078	2053	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1079	2053	Ice Harbor	Historical	14	4.874%	1	-	-	1
1080	2053	John Day	Historical	1,548	4.375%	68	-	-	68
1081	2053	Libby	Historical	1,567	4.875%	76	-	-	76
1082	2053	Little Goose	Historical	13	4.877%	1	-	-	1
1083	2053	Lower Granite	Historical	24	4.875%	1	-	-	1
1084	2053	Lower Monument	Historical	9	4.871%		-	-	
1085	2053	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1086	2053	McNary	Historical	215	4.875%	10	-	-	10
1087	2053	The Dalles	Historical	1,651	4.875%	80	-	-	80
1088	2053	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1089	2053	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1090	2053	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1091	2053	Float	Historical	-	-	(1,623)	-	-	(1,623)
1092	**FY 2053**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
1093	2054	Albeni Falls	Historical	57	4.375%	2	-	-	2
1094	2054	Boise	Historical	64	4.875%	3	-	-	3
1095	2054	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1096	2054	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1097	2054	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1098	2054	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1099	2054	Dworshak	Historical	10	4.877%		-	-	
1100	2054	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1101	2054	Ice Harbor	Historical	14	4.874%	1	-	-	1
1102	2054	John Day	Historical	1,548	4.375%	68	-	-	68
1103	2054	Libby	Historical	1,567	4.875%	76	-	-	76
1104	2054	Little Goose	Historical	13	4.877%	1	-	-	1
1105	2054	Lower Granite	Historical	24	4.875%	1	-	-	1
1106	2054	Lower Monument	Historical	9	4.871%		-	-	
1107	2054	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1108	2054	McNary	Historical	215	4.875%	10	-	-	10
1109	2054	The Dalles	Historical	1,651	4.875%	80	-	-	80
1110	2054	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1111	2054	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1112	2054	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1113	2054	Float	Historical	-	-	(1,623)	-	-	(1,623)
1114	**FY 2054**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
1115	2055	Albeni Falls	Historical	57	4.375%	2	-	-	2
1116	2055	Boise	Historical	64	4.875%	3	-	-	3
1117	2055	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1118	2055	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1119	2055	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1120	2055	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1121	2055	Dworshak	Historical	10	4.877%		-	-	
1122	2055	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1123	2055	Ice Harbor	Historical	14	4.874%	1	-	-	1
1124	2055	John Day	Historical	1,548	4.375%	68	-	-	68
1125	2055	Libby	Historical	1,567	4.875%	76	-	-	76

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
1126	2055	Little Goose	Historical	13	4.877%	1	-	-	1
1127	2055	Lower Granite	Historical	24	4.875%	1	-	-	1
1128	2055	Lower Monument	Historical	9	4.871%		-	-	
1129	2055	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1130	2055	McNary	Historical	215	4.875%	10	-	-	10
1131	2055	The Dalles	Historical	1,651	4.875%	80	-	-	80
1132	2055	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1133	2055	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1134	2055	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1135	2055	Float	Historical	-	-	(1,623)	-	-	(1,623)
1136	**FY 2055**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
1137	2056	Albeni Falls	Historical	57	4.375%	2	-	-	2
1138	2056	Boise	Historical	64	4.875%	3	-	-	3
1139	2056	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1140	2056	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1141	2056	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1142	2056	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1143	2056	Dworshak	Historical	10	4.877%		-	-	
1144	2056	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1145	2056	Ice Harbor	Historical	14	4.874%	1	-	-	1
1146	2056	John Day	Historical	1,548	4.375%	68	-	-	68
1147	2056	Libby	Historical	1,567	4.875%	76	-	-	76
1148	2056	Little Goose	Historical	13	4.877%	1	-	-	1
1149	2056	Lower Granite	Historical	24	4.875%	1	-	-	1
1150	2056	Lower Monument	Historical	9	4.871%		-	-	
1151	2056	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1152	2056	McNary	Historical	215	4.875%	10	-	-	10
1153	2056	The Dalles	Historical	1,651	4.875%	80	-	-	80
1154	2056	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1155	2056	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1156	2056	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1157	2056	Float	Historical	-	-	(1,623)	-	-	(1,623)
1158	**FY 2056**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
1159	2057	Albeni Falls	Historical	57	4.375%	2	-	-	2
1160	2057	Boise	Historical	64	4.875%	3	-	-	3
1161	2057	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1162	2057	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1163	2057	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1164	2057	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1165	2057	Dworshak	Historical	10	4.877%		-	-	
1166	2057	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1167	2057	Ice Harbor	Historical	14	4.874%	1	-	-	1
1168	2057	John Day	Historical	1,548	4.375%	68	-	-	68
1169	2057	Libby	Historical	1,567	4.875%	76	-	-	76
1170	2057	Little Goose	Historical	13	4.877%	1	-	-	1
1171	2057	Lower Granite	Historical	24	4.875%	1	-	-	1
1172	2057	Lower Monument	Historical	9	4.871%		-	-	
1173	2057	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1174	2057	McNary	Historical	215	4.875%	10	-	-	10
1175	2057	The Dalles	Historical	1,651	4.875%	80	-	-	80
1176	2057	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1177	2057	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1178	2057	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1179	2057	Float	Historical	-	-	(1,623)	-	-	(1,623)
1180	**FY 2057**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**
1181	2058	Albeni Falls	Historical	57	4.375%	2	-	-	2
1182	2058	Boise	Historical	64	4.875%	3	-	-	3
1183	2058	Bonneville Dam	Historical	14,609	4.875%	712	-	-	712
1184	2058	Chief Joseph	Historical	3,500	4.875%	171	-	-	171
1185	2058	Columbia Basin	Historical	2,173	4.567%	99	-	-	99
1186	2058	Columbia River Fish Mitigation	Historical	36,554	4.875%	1,782	-	-	1,782
1187	2058	Dworshak	Historical	10	4.877%		-	-	
1188	2058	Hungry Horse Dam	Historical	137	4.654%	6	-	-	6
1189	2058	Ice Harbor	Historical	14	4.874%	1	-	-	1
1190	2058	John Day	Historical	1,548	4.375%	68	-	-	68
1191	2058	Libby	Historical	1,567	4.875%	76	-	-	76
1192	2058	Little Goose	Historical	13	4.877%	1	-	-	1
1193	2058	Lower Granite	Historical	24	4.875%	1	-	-	1
1194	2058	Lower Monument	Historical	9	4.871%		-	-	
1195	2058	Lower Snake Fish and Wildlife	Historical	74	4.874%	4	-	-	4
1196	2058	McNary	Historical	215	4.875%	10	-	-	10
1197	2058	The Dalles	Historical	1,651	4.875%	80	-	-	80
1198	2058	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1199	2058	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1200	2058	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1201	2058	Float	Historical	-	-	(1,623)	-	-	(1,623)
1202	**FY 2058**	**Subtotal:**		**499,105**		**11,597**	**-**	**-**	**11,597**

TABLE 13C:
Interest Calculation Summary, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	D	E	F	G	H	I	J
	Fiscal Year	Project	Type	Current Principal	Rate	Interest	Premium	Net Interest Accrual	Total
1203	2059	Albeni Falls	Historical	57	4.375%	2	-	-	2
1204	2059	Columbia Basin	Historical	1,338	4.375%	59	-	-	59
1205	2059	Hungry Horse Dam	Historical	60	4.376%	3	-	-	3
1206	2059	John Day	Historical	1,548	4.375%	68	-	-	68
1207	2059	Yakima Chandler/Kenniwick	Historical	15	4.377%	1	-	-	1
1208	2059	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1209	2059	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1210	2059	Float	Historical	-	-	(1,623)	-	-	(1,623)
1211	**FY 2059**	**Subtotal:**		**439,889**		**8,710**	**-**	**-**	**8,710**
1212	2060	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1213	2060	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1214	2060	Float	Historical	-	-	(1,623)	-	-	(1,623)
1215	**FY 2060**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1216	2061	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1217	2061	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1218	2061	Float	Historical	-	-	(1,623)	-	-	(1,623)
1219	**FY 2061**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1220	2062	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1221	2062	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1222	2062	Float	Historical	-	-	(1,623)	-	-	(1,623)
1223	**FY 2062**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1224	2063	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1225	2063	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1226	2063	Float	Historical	-	-	(1,623)	-	-	(1,623)
1227	**FY 2063**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1228	2064	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1229	2064	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1230	2064	Float	Historical	-	-	(1,623)	-	-	(1,623)
1231	**FY 2064**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1232	2065	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1233	2065	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1234	2065	Float	Historical	-	-	(1,623)	-	-	(1,623)
1235	**FY 2065**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1236	2066	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1237	2066	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1238	2066	Float	Historical	-	-	(1,623)	-	-	(1,623)
1239	**FY 2066**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1240	2067	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1241	2067	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1242	2067	Float	Historical	-	-	(1,623)	-	-	(1,623)
1243	**FY 2067**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1244	2068	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1245	2068	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1246	2068	Float	Historical	-	-	(1,623)	-	-	(1,623)
1247	**FY 2068**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1248	2069	Replacements	Historical	218,435	2.335%	5,100	-	-	5,100
1249	2069	Replacements	New	218,435	2.335%	5,100	-	-	5,100
1250	2069	Float	Historical	-	-	(1,623)	-	-	(1,623)
1251	**FY 2069**	**Subtotal:**		**436,871**		**8,578**	**-**	**-**	**8,578**
1252	**Grand Total:**			**120,034,427**		**4,398,574**	**-**	**(9,509)**	**4,389,065**

TABLE 13D
Application of Amortization, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
1	2016	Construction (AS)	-	8/12/2011	8/31/2016	3,500	3,500	1.423%	1.423%					3,500		
2	2016	Construction (AS)	-	6/30/2016	9/30/2016	7,000	7,000	0.436%	0.436%					7,000		
3	2016	Bonneville Dam	Corps of Engineers	9/30/1977	9/30/2027	15,670	15,670	7.150%	7.150%					15,670		
4	2016	Chief Joseph	Corps of Engineers	9/30/1977	9/30/2027	30,512	30,512	7.150%	7.150%					30,512		
5	2016	Lost Creek	Corps of Engineers	9/30/1977	9/30/2027	14,293	11,934	7.150%	7.150%					11,934		
6	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1977	9/30/2027	42,764	42,764	7.150%	7.150%					42,764		
7	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1977	9/30/2027	7,964	7,964	7.150%	7.150%					7,964		
8	2016	Lost Creek	Corps of Engineers	9/30/1978	9/30/2027	58	58	7.150%	7.150%					58		
9	2016	Lost Creek	Corps of Engineers	9/30/1979	9/30/2027	60	60	7.150%	7.150%					60		
10	2016	Lost Creek	Corps of Engineers	9/30/1980	9/30/2027	60	60	7.150%	7.150%					60		
11	2016	Lost Creek	Corps of Engineers	9/30/1981	9/30/2027	60	60	7.150%	7.150%					60		
12	2016	Lost Creek	Corps of Engineers	9/30/1982	9/30/2027	60	60	7.150%	7.150%					60		
13	2016	Lost Creek	Corps of Engineers	9/30/1983	9/30/2027	60	60	7.150%	7.150%					60		
14	2016	Lost Creek	Corps of Engineers	9/30/1985	9/30/2027	12	12	7.150%	7.150%					12		
15	2016	Lost Creek	Corps of Engineers	9/30/1986	9/30/2027	6	6	7.150%	7.150%					6		
16	2016	Lost Creek	Corps of Engineers	9/30/1987	9/30/2027	4	4	7.150%	7.150%					4		
17	2016	Chief Joseph	Corps of Engineers	9/30/1978	9/30/2028	75,669	75,669	7.150%	7.150%					75,669		
18	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1978	9/30/2028	42,399	42,399	7.150%	7.150%					42,399		
19	2016	Little Goose	Corps of Engineers	9/30/1978	9/30/2028	49,578	49,578	7.150%	7.150%					49,578		
20	2016	Lower Granite	Corps of Engineers	9/30/1978	9/30/2028	40,611	40,611	7.150%	7.150%					40,611		
21	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1978	9/30/2028	7,896	7,896	7.150%	7.150%					7,896		
22	2016	Little Goose	Corps of Engineers	9/30/1985	9/30/2028	47	47	7.150%	7.150%					47		
23	2016	Chief Joseph	Corps of Engineers	9/30/1979	9/30/2029	60,079	60,079	7.150%	7.150%					60,079		
24	2016	Lower Monument	Corps of Engineers	9/30/1979	9/30/2029	40,669	40,669	7.150%	7.150%					40,669		
25	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1979	9/30/2029	84,118	84,118	7.150%	7.150%					84,118		
26	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1979	9/30/2029	15,666	15,666	7.150%	7.150%					15,666		
27	2016	Chief Joseph	Corps of Engineers	9/30/1985	9/30/2029	16,372	16,372	7.150%	7.150%					16,372		
28	2016	Lower Monument	Corps of Engineers	9/30/1985	9/30/2029	256	256	7.150%	7.150%					256		
29	2016	Chief Joseph	Corps of Engineers	9/30/1986	9/30/2029	5,363	5,363	7.150%	7.150%					5,363		
30	2016	Chief Joseph	Corps of Engineers	9/30/1987	9/30/2029	3,036	3,036	7.150%	7.150%					3,036		
31	2016	Chief Joseph	Corps of Engineers	9/30/1988	9/30/2029	2,722	2,722	7.150%	7.150%					2,722		
32	2016	Chief Joseph	Corps of Engineers	9/30/1989	9/30/2029	2,227	2,227	7.150%	7.150%					2,227		
33	2016	Chief Joseph	Corps of Engineers	9/30/1990	9/30/2029	4,505	4,505	7.150%	7.150%					4,505		
34	2016	Libby	Corps of Engineers	9/30/1994	9/30/2029	286	152	7.150%	7.150%					152		
35	2016	Lower Granite	Corps of Engineers	9/30/1994	9/30/2029	3,543	1,551	7.150%	7.150%					1,551		
36	2016	Dworshak	Corps of Engineers	9/30/1995	9/30/2030	218	218	7.150%	7.150%					218		
37	2016	Libby	Corps of Engineers	9/30/1995	9/30/2030	15	15	7.150%	7.150%					15		
38	2016	Hungry Horse Dam	Bureau of Reclamation	9/30/1995	9/30/2030	536	536	7.150%	7.150%					536		
39	2016	Libby	Corps of Engineers	9/30/1995	9/30/2030	41	41	7.150%	7.150%					41		
40	2016	Hungry Horse Dam	Bureau of Reclamation	9/30/1995	9/30/2030	1,198	1,195	7.150%	7.150%					1,195		
41	2016	Libby	Corps of Engineers	9/30/1995	9/30/2030	94	94	7.150%	7.150%					94		
42	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1981	9/30/2031	40,964	40,964	7.150%	7.150%					40,964		
43	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1981	9/30/2031	455	455	7.150%	7.150%					455		
44	2016	Ice Harbor	Corps of Engineers	9/30/1996	9/30/2031	78	78	7.150%	7.150%					78		
45	2016	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2031	109	109	7.150%	7.150%					109		
46	2016	Lost Creek	Corps of Engineers	9/30/1996	9/30/2031	31	31	7.150%	7.150%					31		
47	2016	Lower Granite	Corps of Engineers	9/30/1996	9/30/2031	206	206	7.150%	7.150%					206		
48	2016	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2031	22	22	7.150%	7.150%					22		
49	2016	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2031	27	27	7.150%	7.150%					27		
50	2016	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2031	251	251	7.150%	7.150%					251		
51	2016	Dworshak	Corps of Engineers	9/30/1996	9/30/2031	6	6	7.150%	7.150%					6		
52	2016	Dworshak	Corps of Engineers	9/30/1996	9/30/2031	203	203	7.150%	7.150%					203		
53	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1982	9/30/2032	203,535	203,535	7.150%	7.150%					203,535		
54	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1982	9/30/2032	2,264	2,264	7.150%	7.150%					2,264		
55	2016	Chief Joseph	Corps of Engineers	9/30/1997	9/30/2032	166	166	7.150%	7.150%					166		

TABLE 13D
Application of Amortization, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
56	2016	McNary	Corps of Engineers	9/30/1997	9/30/2032	30	30	7.150%	7.150%					30		
57	2016	Bonneville Dam	Corps of Engineers	9/30/1997	9/30/2032	518	518	7.150%	7.150%					518		
58	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1983	9/30/2033	62,409	62,409	7.150%	7.150%					62,409		
59	2016	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1983	9/30/2033	30,488	9,472	7.150%	7.150%					9,472		
60	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1983	9/30/2033	694	694	7.150%	7.150%					694		
61	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1983	9/30/2033	712	712	7.150%	7.150%					712		
62	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1983	9/30/2033	13,003	13,003	7.150%	7.150%					13,003		
63	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1984	9/30/2033	16,965	16,965	7.150%	7.150%					16,965		
64	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1984	9/30/2033	13,192	13,192	7.150%	7.150%					13,192		
65	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1984	9/30/2033	3,160	3,160	7.150%	7.150%					3,160		
66	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1985	9/30/2033	9,138	9,138	7.150%	7.150%					9,138		
67	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1985	9/30/2033	2,060	2,060	7.150%	7.150%					2,060		
68	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1985	9/30/2033	41,772	41,772	7.150%	7.150%					41,772		
69	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1985	9/30/2033	107	107	7.150%	7.150%					107		
70	2016	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1986	9/30/2033	30,578	30,578	7.150%	7.150%					30,578		
71	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1986	9/30/2033	1,851	1,851	7.150%	7.150%					1,851		
72	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1986	9/30/2033	15,538	15,538	7.150%	7.150%					15,538		
73	2016	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1987	9/30/2033	14,439	14,439	7.150%	7.150%					9,092		
74		**FY 2016 Subtotal:**	**-**	**-**	**-**	**1,084,198**	**1,058,695**							**1,053,348**		
75	2017	Conservation	-	11/30/2012	11/30/2016	20,000	20,000	0.630%	0.630%					20,000		
76	2017	Construction (AS)	-	4/30/2013	4/30/2017	2,450	2,450	0.622%	0.622%					2,450		
77	2017	Construction (AS)	-	6/30/2013	6/30/2017	3,000	3,000	1.271%	1.271%					3,000		
78	2017	Construction (AS)	-	8/31/2013	8/31/2017	2,000	2,000	1.494%	1.494%					2,000		
79	2017	Construction (AS)	-	9/30/2015	9/30/2017	7,700	7,700	0.744%	0.744%					7,700		
80	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1987	9/30/2033	2,801	2,801	7.150%	7.150%					2,801		
81	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1987	9/30/2033	1,730	1,730	7.150%	7.150%					1,730		
82	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1987	9/30/2033	14,439	5,347	7.150%	7.150%					5,347		
83	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1988	9/30/2033	1,271	1,271	7.150%	7.150%					1,271		
84	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1988	9/30/2033	2,294	2,294	7.150%	7.150%					2,294		
85	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1988	9/30/2033	4,351	4,351	7.150%	7.150%					4,351		
86	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1989	9/30/2033	1,232	1,232	7.150%	7.150%					1,232		
87	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1989	9/30/2033	10,902	10,902	7.150%	7.150%					10,902		
88	2017	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1990	9/30/2033	1,588	1,588	7.150%	7.150%					1,588		
89	2017	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1990	9/30/2033	6,383	6,383	7.150%	7.150%					6,383		
90	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1985	9/30/2035	47,921	47,921	7.150%	7.150%					47,921		
91	2017	John Day	Corps of Engineers	9/30/1995	9/30/2035	22	22	7.150%	7.150%					22		
92	2017	John Day	Corps of Engineers	9/30/1995	9/30/2035	52	52	7.150%	7.150%					52		
93	2017	John Day	Corps of Engineers	9/30/1995	9/30/2035	121	121	7.150%	7.150%					121		
94	2017	Lower Monument	Corps of Engineers	9/30/1996	9/30/2036	264	264	7.150%	7.150%					264		
95	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1987	9/30/2037	72,536	72,536	7.150%	7.150%					72,536		
96	2017	Libby	Corps of Engineers	9/30/1988	9/30/2038	18,043	14,781	7.150%	7.150%					14,781		
97	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1988	9/30/2038	805	805	7.150%	7.150%					805		
98	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1990	9/30/2040	1,557	1,557	7.150%	7.150%					1,557		
99	2017	Little Goose	Corps of Engineers	9/30/1995	9/30/2040	17	17	7.150%	7.150%					17		
100	2017	Little Goose	Corps of Engineers	9/30/1995	9/30/2040	450	450	7.150%	7.150%					450		
101	2017	Little Goose	Corps of Engineers	9/30/1995	9/30/2040	733	733	7.150%	7.150%					733		
102	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1991	9/30/2041	4,411	4,411	7.150%	7.150%					4,411		
103	2017	Ice Harbor	Corps of Engineers	9/30/1996	9/30/2041	371	371	7.150%	7.150%					371		
104	2017	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1993	9/30/2043	71,632	71,632	7.150%	7.150%					40,384		
105		**FY 2017 Subtotal:**	**-**	**-**	**-**	**301,076**	**288,722**							**257,473**		
106	2018	Conservation	-	1/31/2013	1/31/2018	9,000	9,000	1.107%	1.107%					9,000		
107	2018	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1993	9/30/2043	71,632	31,248	7.150%	7.150%					31,248		
108	2018	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1994	9/30/2044	5,700	5,700	7.150%	7.150%					5,700		
109	2018	Chief Joseph	Corps of Engineers	9/30/1994	9/30/2044	4,280	4,017	7.150%	7.150%					4,017		
110	2018	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1994	9/30/2044	4,722	4,722	7.150%	7.150%					4,722		
111	2018	Columbia Basin 3rd Powerhouse	Bureau of Reclamation	9/30/1994	9/30/2044	12,631	12,631	7.150%	7.150%					12,631		
112	2018	Columbia River Fish Mitigation	Corps of Engineers	9/30/1995	9/30/2045	43,343	39,282	7.150%	7.150%					2,373		
113	2018	Lookout Dam	Corps of Engineers	9/30/1995	9/30/2045	80	39	7.150%	7.150%					39		
114	2018	Lost Creek	Corps of Engineers	9/30/1995	9/30/2045	94	94	7.150%	7.150%					94		

TABLE 13D
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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
115	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	41	41	7.150%	7.150%					41		
116	2018	McNary	Corps of Engineers	9/30/1995	9/30/2045	16	16	7.150%	7.150%					16		
117	2018	John Day	Corps of Engineers	9/30/1995	9/30/2045	37	37	7.150%	7.150%					37		
118	2018	Lookout Dam	Corps of Engineers	9/30/1995	9/30/2045	33	33	7.150%	7.150%					33		
119	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	99	99	7.150%	7.150%					99		
120	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	624	624	7.150%	7.150%					624		
121	2018	Hungry Horse Dam	Bureau of Reclamation	9/30/1995	9/30/2045	6,190	6,190	7.150%	7.150%					6,190		
122	2018	Lower Monument	Corps of Engineers	9/30/1995	9/30/2045	1,122	1,122	7.150%	7.150%					1,122		
123	2018	John Day	Corps of Engineers	9/30/1995	9/30/2045	608	608	7.150%	7.150%					608		
124	2018	John Day	Corps of Engineers	9/30/1995	9/30/2045	7,653	7,653	7.150%	7.150%					7,653		
125		**FY 2018 Subtotal:**	-	-	-	**167,905**	**123,156**							**86,247**		
126	2019	Bureau Direct	-	10/31/2009	10/31/2018	24,000	24,000	3.719%	3.719%					24,000		
127	2019	Construction (AS)	-	11/30/2012	11/30/2018	5,250	5,250	1.109%	1.109%					5,250		
128	2019	Fish and Wildlife	-	12/31/2009	12/31/2018	26,000	26,000	4.069%	4.069%					26,000		
129	2019	Bureau Direct	-	1/16/2014	12/31/2018	43,000	43,000	1.943%	1.943%					43,000		
130	2019	Bureau Direct	-	1/16/2014	12/31/2018	38,000	38,000	1.943%	1.943%					38,000		
131	2019	Fish and Wildlife	-	8/31/2010	8/31/2019	20,000	20,000	2.646%	2.646%					20,000		
132	2019	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1995	9/30/2045	3,791	3,791	7.150%	7.150%					3,791		
133	2019	Columbia River Fish Mitigation	Corps of Engineers	9/30/1995	9/30/2045	43,343	36,909	7.150%	7.150%					36,909		
134	2019	Detroit Lake/Big Cliff	Corps of Engineers	9/30/1995	9/30/2045	38	38	7.150%	7.150%					38		
135	2019	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	443	443	7.150%	7.150%					443		
136	2019	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	147	147	7.150%	7.150%					147		
137	2019	Dworshak	Corps of Engineers	9/30/1995	9/30/2045	1,162	1,162	7.150%	7.150%					1,162		
138	2019	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	531	531	7.150%	7.150%					531		
139	2019	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	562	562	7.150%	7.150%					562		
140	2019	Albeni Falls	Corps of Engineers	9/30/1995	9/30/2045	1,105	1,105	7.150%	7.150%					1,105		
141	2019	Bonneville Dam	Corps of Engineers	9/30/1995	9/30/2045	243	243	7.150%	7.150%					243		
142	2019	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	712	712	7.150%	7.150%					712		
143	2019	Columbia Basin	Bureau of Reclamation	9/30/1995	9/30/2045	287	287	7.150%	7.150%					287		
144	2019	Bonneville Dam	Corps of Engineers	9/30/1995	9/30/2045	410	410	7.150%	7.150%					410		
145	2019	Chief Joseph	Corps of Engineers	9/30/1995	9/30/2045	784	784	7.150%	7.150%					784		
146	2019	Columbia Basin	Bureau of Reclamation	9/30/1995	9/30/2045	2,511	2,453	7.150%	7.150%					2,453		
147	2019	Bonneville Dam	Corps of Engineers	9/30/1995	9/30/2045	440	440	7.150%	7.150%					440		
148	2019	Lost Creek	Corps of Engineers	9/30/1996	9/30/2046	24	24	7.150%	7.150%					24		
149	2019	Lower Granite	Corps of Engineers	9/30/1996	9/30/2046	9	9	7.150%	7.150%					9		
150	2019	Lower Monument	Corps of Engineers	9/30/1996	9/30/2046	10	10	7.150%	7.150%					10		
151	2019	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1996	9/30/2046	12,085	12,085	7.150%	7.150%					12,085		
152	2019	The Dalles	Corps of Engineers	9/30/1996	9/30/2046	1,991	1,991	7.150%	7.150%					1,991		
153	2019	Lower Granite	Corps of Engineers	9/30/1996	9/30/2046	625	625	7.150%	7.150%					625		
154	2019	McNary	Corps of Engineers	9/30/1996	9/30/2046	619	619	7.150%	7.150%					619		
155	2019	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	3,909	3,909	7.150%	7.150%					2,060		
156		**FY 2019 Subtotal:**	-	-	-	**232,031**	**225,539**							**223,690**		
157	2020	Construction (AS)	-	10/31/2013	10/31/2019	4,200	4,200	2.039%	2.039%					4,200		
158	2020	Construction (AS)	-	10/31/2013	10/31/2019	5,000	5,000	2.039%	2.039%					5,000		
159	2020	Bureau Direct	-	10/31/2009	10/31/2019	20,000	20,000	3.842%	3.842%					20,000		
160	2020	Bureau Direct	-	11/30/2009	11/30/2019	7,000	7,000	3.637%	3.637%					7,000		
161	2020	Bureau Direct	-	12/31/2009	12/31/2019	13,000	13,000	4.194%	4.194%					13,000		
162	2020	Construction (AS)	-	1/31/2014	1/31/2020	1,750	1,750	2.183%	2.183%					1,750		
163	2020	Construction (AS)	-	1/31/2014	1/31/2020	2,000	2,000	2.183%	2.183%					2,000		
164	2020	Construction (AS)	-	4/30/2014	3/31/2020	1,400	1,400	0.519%	0.519%					1,400		
165	2020	Construction (AS)	-	4/30/2014	3/31/2020	2,000	2,000	0.519%	0.519%					2,000		
166	2020	Bureau Direct	-	3/31/2010	3/31/2020	30,000	30,000	4.083%	4.083%					30,000		
167	2020	Bureau Direct	-	4/30/2010	4/30/2020	18,000	18,000	3.973%	3.973%					18,000		
168	2020	Construction (AS)	-	5/31/2014	4/30/2020	700	700	0.483%	0.483%					700		
169	2020	Bureau Direct	-	5/31/2010	5/31/2020	15,000	15,000	3.574%	3.574%					15,000		
170	2020	Bureau Direct	-	7/31/2010	7/31/2020	17,000	17,000	3.118%	3.118%					17,000		
171	2020	Construction (AS)	-	7/31/2014	7/31/2020	1,050	1,050	0.505%	0.505%					1,050		
172	2020	Boise	Bureau of Reclamation	9/30/1996	9/30/2046	442	442	7.150%	7.150%					442		
173	2020	Bonneville 2nd Powerhouse	Corps of Engineers	9/30/1996	9/30/2046	376	376	7.150%	7.150%					376		

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	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
174	2020	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	18	18	7.150%	7.150%					18		
175	2020	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	3	3	7.150%	7.150%					3		
176	2020	Columbia River Fish Mitigation	Corps of Engineers	9/30/1996	9/30/2046	2,431	2,431	7.150%	7.150%					2,431		
177	2020	Dworshak	Corps of Engineers	9/30/1996	9/30/2046	3	3	7.150%	7.150%					3		
178	2020	Green Peter/Foster	Corps of Engineers	9/30/1996	9/30/2046	26	26	7.150%	7.150%					26		
179	2020	Hills Creek	Corps of Engineers	9/30/1996	9/30/2046	28	28	7.150%	7.150%					28		
180	2020	Hungry Horse Dam	Bureau of Reclamation	9/30/1996	9/30/2046	15	15	7.150%	7.150%					15		
181	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	10	10	7.150%	7.150%					10		
182	2020	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	18	18	7.150%	7.150%					18		
183	2020	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	4	4	7.150%	7.150%					4		
184	2020	Dworshak	Corps of Engineers	9/30/1996	9/30/2046	4	4	7.150%	7.150%					4		
185	2020	Hungry Horse Dam	Bureau of Reclamation	9/30/1996	9/30/2046	2	2	7.150%	7.150%					2		
186	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	10	10	7.150%	7.150%					10		
187	2020	Boise	Bureau of Reclamation	9/30/1996	9/30/2046	656	656	7.150%	7.150%					656		
188	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	211	211	7.150%	7.150%					211		
189	2020	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	80	80	7.150%	7.150%					80		
190	2020	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	355	355	7.150%	7.150%					355		
191	2020	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2046	426	426	7.150%	7.150%					426		
192	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	241	241	7.150%	7.150%					241		
193	2020	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	109	109	7.150%	7.150%					109		
194	2020	Chief Joseph	Corps of Engineers	9/30/1996	9/30/2046	729	729	7.150%	7.150%					729		
195	2020	Columbia Basin	Bureau of Reclamation	9/30/1996	9/30/2046	368	368	7.150%	7.150%					368		
196	2020	Dworshak	Corps of Engineers	9/30/1996	9/30/2046	46	46	7.150%	7.150%					46		
197	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	520	520	7.150%	7.150%					520		
198	2020	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	142	142	7.150%	7.150%					142		
199	2020	Little Goose	Corps of Engineers	9/30/1996	9/30/2046	3,909	1,849	7.150%	7.150%					1,849		
200	2020	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	223	223	7.150%	7.150%					223		
201	2020	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	751	751	7.150%	7.150%					751		
202	2020	Bonneville Dam	Corps of Engineers	9/30/1996	9/30/2046	1,322	1,322	7.150%	7.150%					1,322		
203	2020	Minidoka/Palisades	Bureau of Reclamation	9/30/1997	9/30/2047	50,911	50,911	7.150%	7.150%					48,405		
204		**FY 2020 Subtotal:**	-	-	-	**202,489**	**200,429**							**197,923**		
205	2021	Construction (AS)	-	11/30/2014	11/30/2020	2,100	2,100	1.809%	1.809%					2,100		
206	2021	Construction (AS)	-	12/31/2014	12/31/2020	1,050	1,050	1.922%	1.922%					1,050		
207	2021	Technology (G)	-	1/31/2015	1/31/2021	35,000	35,000	1.469%	1.469%					35,000		
208	2021	Bureau Direct	-	1/31/2009	1/31/2021	25,000	25,000	3.999%	3.999%					25,000		
209	2021	Construction (AS)	-	2/28/2015	2/28/2021	1,750	1,750	1.761%	1.761%					1,750		
210	2021	Construction (AS)	-	5/31/2015	5/31/2021	2,100	2,100	1.898%	1.898%					2,100		
211	2021	Conservation	-	5/31/2015	5/31/2021	5,000	5,000	1.898%	1.898%					5,000		
212	2021	Conservation	-	7/31/2015	7/31/2021	14,000	14,000	2.067%	2.067%					14,000		
213	2021	Bureau Direct	-	11/20/2013	9/30/2021	50,000	50,000	2.812%	2.812%					50,000		
214	2021	Bureau Direct	-	9/30/2010	9/30/2021	22,000	22,000	2.883%	2.883%					22,000		
215	2021	Albeni Falls	Corps of Engineers	9/30/1997	9/30/2047	431	431	7.150%	7.150%					431		
216	2021	Columbia Basin	Bureau of Reclamation	9/30/1997	9/30/2047	3,393	3,393	7.150%	7.150%					3,393		
217	2021	Cougar	Corps of Engineers	9/30/1997	9/30/2047	26	26	7.150%	7.150%					26		
218	2021	Dworshak	Corps of Engineers	9/30/1997	9/30/2047	7,588	7,588	7.150%	7.150%					7,588		
219	2021	Little Goose	Corps of Engineers	9/30/1997	9/30/2047	1	1	7.150%	7.150%					1		
220	2021	Lower Granite	Corps of Engineers	9/30/1997	9/30/2047	677	677	7.150%	7.150%					677		
221	2021	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1997	9/30/2047	2,173	2,173	7.150%	7.150%					2,173		
222	2021	Boise	Bureau of Reclamation	9/30/1997	9/30/2047	2,266	2,266	7.150%	7.150%					2,266		
223	2021	Chief Joseph	Corps of Engineers	9/30/1997	9/30/2047	657	657	7.150%	7.150%					657		
224	2021	Hungry Horse Dam	Bureau of Reclamation	9/30/1997	9/30/2047	111	111	7.150%	7.150%					111		
225	2021	Ice Harbor	Corps of Engineers	9/30/1997	9/30/2047	67	67	7.150%	7.150%					67		
226	2021	John Day	Corps of Engineers	9/30/1997	9/30/2047	179	179	7.150%	7.150%					179		
227	2021	Libby	Corps of Engineers	9/30/1997	9/30/2047	660	660	7.150%	7.150%					660		
228	2021	Minidoka/Palisades	Bureau of Reclamation	9/30/1997	9/30/2047	50,911	2,506	7.150%	7.150%					2,506		
229	2021	Bonneville Dam	Corps of Engineers	9/30/1997	9/30/2047	161	161	7.150%	7.150%					161		
230	2021	Columbia River Fish Mitigation	Corps of Engineers	9/30/2000	9/30/2050	47,006	47,006	6.125%	6.125%					29,938		

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231	2021	Hills Creek	Corps of Engineers	9/30/2000	9/30/2050	2,630	2,630	6.125%	6.125%					2,630		
232	2021	Ice Harbor	Corps of Engineers	9/30/2000	9/30/2050	548	548	6.125%	6.125%					548		
233	2021	John Day	Corps of Engineers	9/30/2000	9/30/2050	2,761	2,761	6.125%	6.125%					2,761		
234	2021	Lookout Dam	Corps of Engineers	9/30/2000	9/30/2050	5,098	5,098	6.125%	6.125%					5,098		
235	2021	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2000	9/30/2050	1,529	1,529	6.125%	6.125%					1,529		
236	2021	The Dalles	Corps of Engineers	9/30/2000	9/30/2050	2,588	2,588	6.125%	6.125%					2,588		
237		**FY 2021 Subtotal:**	**-**	**-**	**-**	**289,462**	**241,057**							**223,989**		
238	2022	Construction (AS)	-	10/31/2015	10/31/2021	2,800	2,800	1.942%	1.942%					2,800		
239	2022	Conservation	-	12/31/2013	12/31/2021	6,000	6,000	3.142%	3.142%					6,000		
240	2022	Construction (AS)	-	2/29/2016	2/28/2022	3,000	3,000	0.515%	0.515%					3,000		
241	2022	Technology (G)	-	10/31/2015	7/31/2022	6,000	6,000	0.505%	0.505%					6,000		
242	2022	Conservation	-	8/31/2015	8/31/2022	6,000	6,000	2.233%	2.233%					6,000		
243	2022	Bureau Direct	-	11/20/2013	9/30/2022	19,000	19,000	3.125%	3.125%					19,000		
244	2022	Fish and Wildlife	-	11/20/2013	9/30/2022	31,000	31,000	3.125%	3.125%					31,000		
245	2022	Conservation	-	9/30/2015	9/30/2022	4,000	4,000	2.062%	2.062%					4,000		
246	2022	Technology (G)	-	9/30/2017	9/30/2022	5,000	5,000	3.000%	3.000%					5,000		
247	2022	Bonneville Dam	Corps of Engineers	9/30/2000	9/30/2050	24,446	24,446	6.125%	6.125%					24,446		
248	2022	Columbia River Fish Mitigation	Corps of Engineers	9/30/2000	9/30/2050	47,006	17,068	6.125%	6.125%					17,068		
249	2022	Columbia Basin	Bureau of Reclamation	9/30/2001	9/30/2051	69,226	69,226	5.875%	5.875%					52,699		
250	2022	Columbia River Fish Mitigation	Corps of Engineers	9/30/2001	9/30/2051	6,168	6,168	5.875%	5.875%					6,168		
251	2022	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2001	9/30/2051	282	282	5.875%	5.875%					282		
252	2022	Green Peter/Foster	Corps of Engineers	9/30/2001	9/30/2051	200	200	5.875%	5.875%					200		
253	2022	Hills Creek	Corps of Engineers	9/30/2001	9/30/2051	8	8	5.875%	5.875%					8		
254	2022	Hungry Horse Dam	Bureau of Reclamation	9/30/2001	9/30/2051	552	552	5.875%	5.875%					552		
255	2022	Ice Harbor	Corps of Engineers	9/30/2001	9/30/2051	764	764	5.875%	5.875%					764		
256	2022	John Day	Corps of Engineers	9/30/2001	9/30/2051	619	619	5.875%	5.875%					619		
257	2022	Libby	Corps of Engineers	9/30/2001	9/30/2051	5,562	5,562	5.875%	5.875%					5,562		
258	2022	Little Goose	Corps of Engineers	9/30/2001	9/30/2051	4,608	4,608	5.875%	5.875%					4,608		
259	2022	Lost Creek	Corps of Engineers	9/30/2001	9/30/2051	147	147	5.875%	5.875%					147		
260	2022	Lower Granite	Corps of Engineers	9/30/2001	9/30/2051	2,025	2,025	5.875%	5.875%					2,025		
261	2022	Lower Monument	Corps of Engineers	9/30/2001	9/30/2051	3,301	3,301	5.875%	5.875%					3,301		
262	2022	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2001	9/30/2051	325	325	5.875%	5.875%					325		
263	2022	McNary	Corps of Engineers	9/30/2001	9/30/2051	1,046	1,046	5.875%	5.875%					1,046		
264	2022	Minidoka/Palisades	Bureau of Reclamation	9/30/2001	9/30/2051	42	42	5.875%	5.875%					42		
265	2022	RRP - Green Springs	Bureau of Reclamation	9/30/2001	9/30/2051	11,145	11,145	5.875%	5.875%					11,145		
266	2022	Yakima Roza	Bureau of Reclamation	9/30/2001	9/30/2051	15	14	5.875%	5.875%					14		
267		**FY 2022 Subtotal:**	**-**	**-**	**-**	**260,287**	**230,348**							**213,821**		
268	2023	Conservation	-	1/31/2011	1/31/2023	40,000	40,000	4.046%	4.046%					40,000		
269	2023	Conservation	-	4/30/2011	4/30/2023	35,000	35,000	3.932%	3.932%					35,000		
270	2023	Conservation	-	8/12/2011	8/31/2023	40,000	40,000	3.206%	3.206%					40,000		
271	2023	Conservation	-	11/20/2013	9/30/2023	27,000	27,000	3.375%	3.375%					27,000		
272	2023	Construction (AS)	-	9/30/2017	9/30/2023	5,250	5,250	3.120%	3.120%					5,250		
273	2023	Technology (G)	-	9/30/2018	9/30/2023	5,000	5,000	3.630%	3.630%					5,000		
274	2023	Bonneville Dam	Corps of Engineers	9/30/1999	9/30/2049	19,368	19,368	5.375%	5.375%					10,596		
275	2023	Columbia River Fish Mitigation	Corps of Engineers	9/30/1999	9/30/2049	14,115	14,115	5.375%	5.375%					14,115		
276	2023	Dworshak	Corps of Engineers	9/30/1999	9/30/2049	630	630	5.375%	5.375%					630		
277	2023	Ice Harbor	Corps of Engineers	9/30/1999	9/30/2049	5,516	5,516	5.375%	5.375%					5,516		
278	2023	John Day	Corps of Engineers	9/30/1999	9/30/2049	3,510	3,510	5.375%	5.375%					3,510		
279	2023	Lower Granite	Corps of Engineers	9/30/1999	9/30/2049	856	856	5.375%	5.375%					856		
280	2023	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/1999	9/30/2049	7	7	5.375%	5.375%					7		
281	2023	Bonneville Dam	Corps of Engineers	9/30/2001	9/30/2051	2,530	2,530	5.875%	5.875%					2,530		
282	2023	Chief Joseph	Corps of Engineers	9/30/2001	9/30/2051	345	345	5.875%	5.875%					345		
283	2023	Columbia Basin	Bureau of Reclamation	9/30/2001	9/30/2051	69,226	16,526	5.875%	5.875%					16,526		
284	2023	Bonneville Dam	Corps of Engineers	9/30/2002	9/30/2052	448	448	5.500%	5.500%					448		
285	2023	Chief Joseph	Corps of Engineers	9/30/2002	9/30/2052	2	2	5.500%	5.500%					2		
286	2023	Columbia River Fish Mitigation	Corps of Engineers	9/30/2002	9/30/2052	8,797	8,797	5.500%	5.500%					8,797		
287	2023	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2002	9/30/2052	18	18	5.500%	5.500%					18		
288	2023	Dworshak	Corps of Engineers	9/30/2002	9/30/2052	199	199	5.500%	5.500%					199		
289	2023	Hills Creek	Corps of Engineers	9/30/2002	9/30/2052	2	2	5.500%	5.500%					2		

TABLE 13D
Application of Amortization, SHIFT STUDY
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($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
290	2023	Ice Harbor	Corps of Engineers	9/30/2002	9/30/2052	1,014	1,014	5.500%	5.500%					1,014		
291	2023	Little Goose	Corps of Engineers	9/30/2002	9/30/2052	27	27	5.500%	5.500%					27		
292	2023	Lower Granite	Corps of Engineers	9/30/2002	9/30/2052	1,275	1,275	5.500%	5.500%					1,275		
293	2023	Lower Monument	Corps of Engineers	9/30/2002	9/30/2052	29	29	5.500%	5.500%					29		
294	2023	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2002	9/30/2052	890	890	5.500%	5.500%					890		
295	2023	The Dalles	Corps of Engineers	9/30/2002	9/30/2052	1,226	1,226	5.500%	5.500%					1,226		
296		**FY 2023 Subtotal:**	**-**	**-**	**-**	**282,277**	**229,578**							**220,806**		
297	2024	Conservation	-	12/31/2013	12/31/2023	55,000	55,000	0.490%	0.490%					55,000		
298	2024	Conservation	-	12/31/2014	12/31/2023	7,000	7,000	2.403%	2.403%					7,000		
299	2024	Conservation	-	1/31/2015	1/31/2024	7,000	7,000	1.908%	1.908%					7,000		
300	2024	Fish and Wildlife	-	1/31/2015	1/31/2024	5,000	5,000	1.908%	1.908%					5,000		
301	2024	Conservation	-	2/28/2015	2/29/2024	8,000	8,000	2.251%	2.251%					8,000		
302	2024	Technology (G)	-	9/30/2019	3/31/2024	5,000	5,000	3.830%	3.830%					5,000		
303	2024	Conservation	-	4/30/2015	4/30/2024	5,000	5,000	2.269%	2.269%					5,000		
304	2024	Conservation	-	5/31/2014	4/30/2024	15,000	15,000	0.483%	0.483%					15,000		
305	2024	Fish and Wildlife	-	6/30/2009	6/30/2024	20,000	20,000	4.556%	4.556%					20,000		
306	2024	Construction (AS)	-	9/30/2018	9/30/2024	5,950	5,950	3.700%	3.700%					5,950		
307	2024	Bonneville Dam	Corps of Engineers	9/30/1999	9/30/2049	19,368	8,772	5.375%	5.375%					8,772		
308	2024	Columbia River Fish Mitigation	Corps of Engineers	9/30/2004	9/30/2054	60,581	60,581	5.375%	5.375%					52,488		
309	2024	Ice Harbor	Corps of Engineers	9/30/2004	9/30/2054	3,321	3,321	5.375%	5.375%					3,321		
310	2024	John Day	Corps of Engineers	9/30/2004	9/30/2054	2,830	2,830	5.375%	5.375%					2,830		
311	2024	Little Goose	Corps of Engineers	9/30/2004	9/30/2054	68	67	5.375%	5.375%					67		
312	2024	Lower Monument	Corps of Engineers	9/30/2004	9/30/2054	3,423	3,423	5.375%	5.375%					3,423		
313	2024	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2004	9/30/2054	230	230	5.375%	5.375%					230		
314	2024	McNary	Corps of Engineers	9/30/2004	9/30/2054	6,138	6,138	5.375%	5.375%					6,138		
315	2024	The Dalles	Corps of Engineers	9/30/2004	9/30/2054	182	182	5.375%	5.375%					182		
316		**FY 2024 Subtotal:**	**-**	**-**	**-**	**229,089**	**218,493**							**210,401**		
317	2025	Conservation	-	6/30/2014	10/31/2024	5,000	5,000	0.483%	0.483%					5,000		
318	2025	Conservation	-	10/31/2014	12/31/2024	10,000	10,000	0.490%	0.490%					10,000		
319	2025	Conservation	-	3/31/2015	3/31/2025	5,000	5,000	2.295%	2.295%					5,000		
320	2025	Conservation	-	5/31/2014	4/30/2025	3,000	3,000	0.483%	0.483%					3,000		
321	2025	Conservation	-	4/30/2014	6/30/2025	30,000	30,000	0.490%	0.490%					30,000		
322	2025	Conservation	-	7/31/2014	7/31/2025	12,000	12,000	0.505%	0.505%					12,000		
323	2025	Conservation	-	8/31/2014	9/30/2025	4,000	4,000	0.519%	0.519%					4,000		
324	2025	Construction (AS)	-	9/30/2019	9/30/2025	5,950	5,950	3.890%	3.890%					5,950		
325	2025	Bureau Direct	-	6/30/2009	6/30/2039	25,000	25,000	5.192%	5.192%					25,000	2,642	
326	2025	Columbia River Fish Mitigation	Corps of Engineers	9/30/2003	9/30/2053	68,440	68,440	5.125%	5.125%					55,408		
327	2025	Ice Harbor	Corps of Engineers	9/30/2003	9/30/2053	50	50	5.125%	5.125%					50		
328	2025	Little Goose	Corps of Engineers	9/30/2003	9/30/2053	146	146	5.125%	5.125%					146		
329	2025	Lookout Dam	Corps of Engineers	9/30/2003	9/30/2053	135	135	5.125%	5.125%					135		
330	2025	Lower Granite	Corps of Engineers	9/30/2003	9/30/2053	42	42	5.125%	5.125%					42		
331	2025	Lower Monument	Corps of Engineers	9/30/2003	9/30/2053	22	22	5.125%	5.125%					22		
332	2025	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2003	9/30/2053	98	98	5.125%	5.125%					98		
333	2025	McNary	Corps of Engineers	9/30/2003	9/30/2053	97	97	5.125%	5.125%					97		
334	2025	Bonneville Dam	Corps of Engineers	9/30/2004	9/30/2054	26,741	26,741	5.375%	5.375%					26,741		
335	2025	Columbia River Fish Mitigation	Corps of Engineers	9/30/2004	9/30/2054	60,581	8,093	5.375%	5.375%					8,093		
336	2025	Cougar	Corps of Engineers	9/30/2004	9/30/2054	3,622	3,622	5.375%	5.375%					3,622		
337		**FY 2025 Subtotal:**	**-**	**-**	**-**	**259,922**	**207,434**							**194,403**	**2,642**	
338	2026	Conservation	-	10/31/2013	10/31/2025	34,000	34,000	3.568%	3.568%					34,000		
339	2026	Conservation	-	1/31/2014	1/31/2026	5,000	5,000	3.621%	3.621%					5,000		
340	2026	Fish and Wildlife	-	1/31/2011	1/31/2026	50,000	50,000	4.440%	4.440%					50,000		
341	2026	Fish and Wildlife	-	2/28/2011	2/28/2026	15,000	15,000	4.398%	4.398%					15,000		
342	2026	Fish and Wildlife	-	6/22/2011	6/30/2026	15,000	15,000	4.205%	4.205%					15,000		
343	2026	Bonneville Dam	Corps of Engineers	9/30/2003	9/30/2053	4,581	4,581	5.125%	5.125%					4,581		
344	2026	Columbia River Fish Mitigation	Corps of Engineers	9/30/2003	9/30/2053	68,440	13,031	5.125%	5.125%					13,031		
345	2026	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2003	9/30/2053	223	223	5.125%	5.125%					223		
346	2026	Dworshak	Corps of Engineers	9/30/2003	9/30/2053	761	761	5.125%	5.125%					761		
347	2026	Chief Joseph	Corps of Engineers	9/30/2003	9/30/2053	992	992	5.125%	5.125%					992		
348	2026	Columbia River Fish Mitigation	Corps of Engineers	9/30/2005	9/30/2055	52,039	52,039	5.125%	5.125%					2,253		

TABLE 13D
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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
349	2026	Hills Creek	Corps of Engineers	9/30/2005	9/30/2055	46	46	5.125%	5.125%					46		
350	2026	Hungry Horse Dam	Bureau of Reclamation	9/30/2005	9/30/2055	2,951	2,951	5.125%	5.125%					2,951		
351	2026	John Day	Corps of Engineers	9/30/2005	9/30/2055	2,828	2,827	5.125%	5.125%					2,827		
352	2026	Lookout Dam	Corps of Engineers	9/30/2005	9/30/2055	7,355	7,355	5.125%	5.125%					7,355		
353	2026	Lower Granite	Corps of Engineers	9/30/2005	9/30/2055	393	393	5.125%	5.125%					393		
354	2026	Lower Monument	Corps of Engineers	9/30/2005	9/30/2055	527	527	5.125%	5.125%					527		
355	2026	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2005	9/30/2055	4	4	5.125%	5.125%					4		
356	2026	McNary	Corps of Engineers	9/30/2005	9/30/2055	550	550	5.125%	5.125%					550		
357	2026	The Dalles	Corps of Engineers	9/30/2005	9/30/2055	36,019	36,019	5.125%	5.125%					36,019		
358	2026	Yakima Chandler/Kenniwick	Bureau of Reclamation	9/30/2005	9/30/2055	833	833	5.125%	5.125%					833		
359		**FY 2026 Subtotal:**	**-**	**-**	**-**	**297,541**	**242,132**							**192,347**		
360	2027	Fish and Wildlife	-	10/31/2013	12/31/2026	28,000	28,000	3.717%	3.717%					28,000		
361	2027	Conservation	-	11/30/2014	3/31/2027	6,000	6,000	0.519%	0.519%					6,000		
362	2027	Fish and Wildlife	-	5/31/2014	4/30/2027	11,000	11,000	0.483%	0.483%					11,000		
363	2027	Fish and Wildlife	-	11/30/2013	5/31/2027	5,000	5,000	0.577%	0.577%					5,000		
364	2027	Fish and Wildlife	-	10/31/2013	5/31/2027	11,000	11,000	3.762%	3.762%					11,000		
365	2027	Bureau Direct	-	1/31/2011	1/31/2039	35,000	35,000	5.040%	5.040%					35,000	2902.306	
366	2027	Albeni Falls	Corps of Engineers	9/30/2005	9/30/2055	481	481	5.125%	5.125%					481		
367	2027	Boise	Bureau of Reclamation	9/30/2005	9/30/2055	903	903	5.125%	5.125%					903		
368	2027	Bonneville Dam	Corps of Engineers	9/30/2005	9/30/2055	19,725	19,725	5.125%	5.125%					19,725		
369	2027	Columbia Basin	Bureau of Reclamation	9/30/2005	9/30/2055	10,963	10,963	5.125%	5.125%					10,963		
370	2027	Columbia River Fish Mitigation	Corps of Engineers	9/30/2005	9/30/2055	52,039	49,786	5.125%	5.125%					49,786		
371	2027	Cougar	Corps of Engineers	9/30/2005	9/30/2055	8,130	8,130	5.125%	5.125%					8,130		
372	2027	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2005	9/30/2055	1,031	1,031	5.125%	5.125%					1,031		
373	2027	Dworshak	Corps of Engineers	9/30/2005	9/30/2055	713	713	5.125%	5.125%					713		
374	2027	Columbia River Fish Mitigation	Corps of Engineers	9/30/2007	9/30/2057	53,525	53,525	5.000%	5.000%					16,539		
375	2027	Hungry Horse Dam	Bureau of Reclamation	9/30/2007	9/30/2057	294	294	5.000%	5.000%					294		
376	2027	John Day	Corps of Engineers	9/30/2007	9/30/2057	233	233	5.000%	5.000%					233		
377	2027	Lookout Dam	Corps of Engineers	9/30/2007	9/30/2057	572	572	5.000%	5.000%					572		
378	2027	The Dalles	Corps of Engineers	9/30/2007	9/30/2057	140	140	5.000%	5.000%					140		
379		**FY 2027 Subtotal:**	**-**	**-**	**-**	**244,749**	**242,495**							**205,509**	**2,902**	
380	2028	Fish and Wildlife	-	11/20/2013	9/30/2023	23,000	23,000	3.375%	3.831%	Global	9/30/2023	9/30/2028	3.831%	23,000		
381	2028	Conservation	-	10/31/2015	10/31/2027	25,000	25,000	0.483%	0.483%					25,000		
382	2028	Fish and Wildlife	-	3/31/2015	3/31/2028	3,000	3,000	2.511%	2.511%					3,000		
383	2028	Bureau Direct	-	6/22/2011	6/30/2038	30,000	30,000	4.700%	4.700%					30,000	1,519	
384	2028	Bureau Direct	-	2/28/2011	2/28/2040	50,000	50,000	4.995%	4.995%					50,000	3,868	
385	2028	Corps	-	9/30/2019	9/30/2049	41,000	41,000	4.670%	4.670%					13,441		
386	2028	Boise	Bureau of Reclamation	9/30/2007	9/30/2057	76	76	5.000%	5.000%					76		
387	2028	Bonneville Dam	Corps of Engineers	9/30/2007	9/30/2057	1,124	1,124	5.000%	5.000%					1,124		
388	2028	Columbia Basin	Bureau of Reclamation	9/30/2007	9/30/2057	929	929	5.000%	5.000%					929		
389	2028	Columbia River Fish Mitigation	Corps of Engineers	9/30/2007	9/30/2057	53,525	36,986	5.000%	5.000%					36,986		
390	2028	Cougar	Corps of Engineers	9/30/2007	9/30/2057	120	120	5.000%	5.000%					120		
391		**FY 2028 Subtotal:**	**-**	**-**	**-**	**227,773**	**211,234**							**183,675**	**5,387**	
392	2029	Fish and Wildlife	-	10/31/2013	10/31/2028	22,000	22,000	3.880%	3.880%					22,000		
393	2029	Fish and Wildlife	-	1/31/2014	1/31/2029	7,000	7,000	3.896%	3.896%					7,000		
394	2029	Fish and Wildlife	-	10/31/2014	1/31/2029	15,000	15,000	0.505%	0.505%					15,000		
395	2029	Fish and Wildlife	-	4/30/2014	2/28/2029	7,000	7,000	0.515%	0.515%					7,000		
396	2029	Fish and Wildlife	-	8/31/2014	7/31/2029	5,000	5,000	0.505%	0.505%					5,000		
397	2029	Bureau Direct	-	6/22/2011	6/30/2036	30,000	30,000	4.629%	4.629%					30,000	1,334	
398	2029	Bureau Direct	-	7/31/2019	7/31/2044	47,000	47,000	4.530%	4.530%					47,000		
399	2029	Corps	-	7/31/2019	7/31/2045	41,000	41,000	4.560%	4.560%					41,000		
400	2029	Bureau Direct	-	8/31/2019	8/31/2046	47,000	47,000	4.590%	4.590%					47,000		
401	2029	Corps	-	8/31/2019	8/31/2047	41,000	41,000	4.620%	4.620%					41,000		
402	2029	Bureau Direct	-	9/30/2019	9/30/2048	47,000	47,000	4.650%	4.650%					47,000		
403	2029	Corps	-	9/30/2019	9/30/2049	41,000	27,559	4.670%	4.670%					27,559		
404	2029	Columbia River Fish Mitigation	Corps of Engineers	9/30/2006	9/30/2056	366,395	366,395	4.500%	4.500%					131,602		
405	2029	John Day	Corps of Engineers	9/30/2006	9/30/2056	601	601	4.500%	4.500%					601		
406	2029	Lower Monument	Corps of Engineers	9/30/2006	9/30/2056	285	285	4.500%	4.500%					285		
407	2029	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2006	9/30/2056	379	379	4.500%	4.500%					379		

TABLE 13D
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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
408	2029	The Dalles	Corps of Engineers	9/30/2006	9/30/2056	2,030	2,030	4.500%	4.500%					2,030		
409	2029	McNary	Corps of Engineers	9/30/2006	9/30/2056	4,080	4,080	4.500%	4.500%					4,080		
410		**FY 2029 Subtotal:**	-	-	-	**723,769**	**710,329**							**475,536**	**1,334**	
411	2030	Bureau Direct	-	1/16/2014	12/31/2018	26,000	26,000	1.943%	4.136%	Global	12/31/2018	12/31/2029	4.136%	26,000		
412	2030	Bureau Direct	-	1/16/2014	12/31/2018	21,000	21,000	1.943%	4.136%	Global	12/31/2018	12/31/2029	4.136%	21,000		
413	2030	Bureau Direct	-	1/16/2014	12/31/2018	14,000	14,000	1.943%	4.136%	Global	12/31/2018	12/31/2029	4.136%	14,000		
414	2030	Bureau Direct	-	1/31/2010	1/31/2019	10,000	10,000	3.714%	4.136%	Global	1/31/2019	1/31/2030	4.136%	10,000		
415	2030	Bureau Direct	-	9/30/2009	9/30/2019	25,000	25,000	3.699%	4.136%	Global	9/30/2019	9/30/2030	4.136%	25,000		
416	2030	Fish and Wildlife	-	11/30/2014	3/31/2030	8,000	8,000	0.519%	0.519%					8,000		
417	2030	Corps	-	5/31/2016	5/31/2030	15,000	15,000	2.599%	2.599%					15,000		
418	2030	Bureau Direct	-	7/31/2016	7/31/2030	12,000	12,000	2.145%	2.145%					12,000		
419	2030	Bureau Direct	-	7/31/2016	7/31/2030	25,000	25,000	2.145%	2.145%					25,000		
420	2030	Bonneville Dam	Corps of Engineers	9/30/2006	9/30/2056	2,628	2,628	4.500%	4.500%					182		
421	2030	Columbia Basin	Bureau of Reclamation	9/30/2006	9/30/2056	1,987	1,987	4.500%	4.500%					1,987		
422	2030	Columbia River Fish Mitigation	Corps of Engineers	9/30/2006	9/30/2056	366,395	234,792	4.500%	4.500%					234,792		
423	2030	Cougar	Corps of Engineers	9/30/2006	9/30/2056	109	109	4.500%	4.500%					109		
424	2030	Dworshak	Corps of Engineers	9/30/2006	9/30/2056	73	73	4.500%	4.500%					73		
425		**FY 2030 Subtotal:**	-	-	-	**527,192**	**395,589**							**393,144**		
426	2031	Bureau Direct	-	6/30/2010	6/30/2020	10,000	10,000	3.243%	4.136%	Global	6/30/2020	6/30/2031	4.136%	10,000		
427	2031	Bureau Direct	-	6/30/2010	6/30/2020	30,000	30,000	3.243%	4.136%	Global	6/30/2020	6/30/2031	4.136%	30,000		
428	2031	Bureau Direct	-	11/20/2013	9/30/2020	51,000	51,000	2.473%	4.136%	Global	9/30/2020	9/30/2031	4.136%	51,000		
429	2031	Fish and Wildlife	-	2/29/2016	2/28/2031	4,000	4,000	0.515%	0.515%					4,000		
430	2031	Fish and Wildlife	-	10/31/2015	2/28/2031	4,000	4,000	0.515%	0.515%					4,000		
431	2031	Fish and Wildlife	-	10/31/2015	3/31/2031	5,000	5,000	0.519%	0.519%					5,000		
432	2031	Corps	-	4/30/2016	4/30/2031	53,000	53,000	2.661%	2.661%					53,000		
433	2031	Bureau Direct	-	4/30/2016	4/30/2031	17,000	17,000	2.661%	2.661%					17,000		
434	2031	Bureau Direct	-	8/31/2018	8/31/2040	28,000	28,000	4.380%	4.380%					28,000		
435	2031	Corps	-	8/31/2018	8/31/2041	53,000	53,000	4.410%	4.410%					53,000		
436	2031	Bureau Direct	-	9/30/2018	9/30/2042	28,000	28,000	4.440%	4.440%					28,000		
437	2031	Corps	-	9/30/2018	9/30/2043	52,000	52,000	4.470%	4.470%					52,000		
438	2031	Boise	Bureau of Reclamation	9/30/2006	9/30/2056	15	15	4.500%	4.500%					15		
439	2031	Bonneville Dam	Corps of Engineers	9/30/2006	9/30/2056	2,628	2,446	4.500%	4.500%					2,446		
440	2031	Boise	Bureau of Reclamation	9/30/2009	9/30/2059	2	2	4.375%	4.375%					2		
441	2031	Columbia River Fish Mitigation	Corps of Engineers	9/30/2009	9/30/2059	103,203	103,203	4.375%	4.375%					94,732		
442	2031	Dworshak	Corps of Engineers	9/30/2009	9/30/2059	2,425	2,425	4.375%	4.375%					2,425		
443	2031	Ice Harbor	Corps of Engineers	9/30/2009	9/30/2059	2,615	2,615	4.375%	4.375%					2,615		
444	2031	Little Goose	Corps of Engineers	9/30/2009	9/30/2059	3,171	3,171	4.375%	4.375%					3,171		
445	2031	Lower Granite	Corps of Engineers	9/30/2009	9/30/2059	5,669	5,669	4.375%	4.375%					5,669		
446	2031	Lower Monument	Corps of Engineers	9/30/2009	9/30/2059	2,332	2,332	4.375%	4.375%					2,332		
447		**FY 2031 Subtotal:**	-	-	-	**457,061**	**456,878**							**448,407**		
448	2032	Bureau Direct	-	4/30/2009	4/30/2023	25,000	25,000	4.391%	4.052%	Global	4/30/2023	4/30/2032	4.052%	25,000		
449	2032	Bureau Direct	-	9/30/2014	5/31/2032	16,000	16,000	0.577%	0.577%					16,000		
450	2032	Bureau Direct	-	9/30/2014	5/31/2032	10,000	10,000	0.577%	0.577%					10,000		
451	2032	Bureau Direct	-	7/31/2017	7/31/2032	16,000	16,000	3.810%	3.810%					16,000		
452	2032	Fish and Wildlife	-	9/30/2017	9/30/2032	45,000	45,000	3.810%	3.810%					45,000		
453	2032	Fish and Wildlife	-	9/30/2018	9/30/2033	51,000	51,000	4.160%	4.160%					51,000		
454	2032	Fish and Wildlife	-	9/30/2019	9/30/2034	44,000	44,000	4.250%	4.250%					44,000		
455	2032	Bureau Direct	-	10/31/2010	10/31/2034	20,000	20,000	4.211%	4.211%					20,000	268	
456	2032	Corps	-	8/31/2017	8/31/2035	55,000	55,000	3.930%	3.930%					20,247		
457	2032	Bureau Direct	-	9/30/2017	9/30/2036	16,000	16,000	3.970%	3.970%					16,000		
458	2032	Bureau Direct	-	8/12/2011	8/31/2037	30,000	30,000	4.208%	4.208%					30,000	542	
459	2032	Corps	-	9/30/2017	9/30/2037	55,000	55,000	4.010%	4.010%					55,000		
460	2032	Bureau Direct	-	7/31/2018	7/31/2038	28,000	28,000	4.320%	4.320%					28,000		
461	2032	Corps	-	7/31/2018	7/31/2039	53,000	53,000	4.350%	4.350%					53,000		
462	2032	Bonneville Dam	Corps of Engineers	9/30/2009	9/30/2059	2,744	2,744	4.375%	4.375%					2,744		
463	2032	Chief Joseph	Corps of Engineers	9/30/2009	9/30/2059	24,727	24,727	4.375%	4.375%					24,727		
464	2032	Columbia River Fish Mitigation	Corps of Engineers	9/30/2009	9/30/2059	103,203	8,471	4.375%	4.375%					8,471		
465	2032	Cougar	Corps of Engineers	9/30/2009	9/30/2059	121	121	4.375%	4.375%					121		
466	2032	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2009	9/30/2059	1,540	1,540	4.375%	4.375%					1,540		

TABLE 13D
Application of Amortization, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
467	2032	Little Goose	Corps of Engineers	9/30/2010	9/30/2060	30	30	4.250%	4.250%					30		
468	2032	Lower Granite	Corps of Engineers	9/30/2010	9/30/2060	1,156	1,156	4.250%	4.250%					1,156		
469	2032	Albeni Falls	Corps of Engineers	9/30/2010	9/30/2060	42	42	4.250%	4.250%					42		
470	2032	Bonneville Dam	Corps of Engineers	9/30/2010	9/30/2060	1,425	1,425	4.250%	4.250%					1,425		
471	2032	Columbia Basin	Bureau of Reclamation	9/30/2010	9/30/2060	877	877	4.250%	4.250%					877		
472	2032	Columbia River Fish Mitigation	Corps of Engineers	9/30/2010	9/30/2060	56,832	56,832	4.250%	4.250%					56,832		
473	2032	Cougar	Corps of Engineers	9/30/2010	9/30/2060	59	59	4.250%	4.250%					59		
474	2032	Hungry Horse Dam	Bureau of Reclamation	9/30/2010	9/30/2060	779	779	4.250%	4.250%					779		
475	2032	Ice Harbor	Corps of Engineers	9/30/2010	9/30/2060	207	207	4.250%	4.250%					207		
476	2032	John Day	Corps of Engineers	9/30/2010	9/30/2060	356	356	4.250%	4.250%					356		
477	2032	Libby	Corps of Engineers	9/30/2010	9/30/2060	40	40	4.250%	4.250%					40		
478	2032	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2010	9/30/2060	6	6	4.250%	4.250%					6		
479	2032	Columbia River Fish Mitigation	Corps of Engineers	9/30/2019	9/30/2069	53,204	53,204	3.980%	3.980%					53,204		
480		**FY 2032 Subtotal:**	**-**	**-**	**-**	**711,347**	**616,616**							**581,863**	**810**	
481	2033	Bureau Direct	-	9/30/2014	6/30/2033	11,000	11,000	0.490%	0.490%					11,000		
482	2033	Bureau Direct	-	9/30/2014	6/30/2033	12,000	12,000	0.490%	0.490%					12,000		
483	2033	Bureau Direct	-	9/30/2014	7/31/2033	15,000	15,000	0.505%	0.505%					15,000		
484	2033	Corps	-	7/31/2017	7/31/2033	55,000	55,000	3.850%	3.850%					55,000		
485	2033	Bureau Direct	-	9/30/2015	9/30/2033	10,000	10,000	3.134%	3.134%					10,000		
486	2033	Corps	-	9/30/2015	9/30/2033	4,000	4,000	3.134%	3.134%					4,000		
487	2033	Bureau Direct	-	8/31/2017	8/31/2034	16,000	16,000	3.890%	3.890%					16,000		
488	2033	Corps	-	8/31/2017	8/31/2035	55,000	34,753	3.930%	3.930%					34,753		
489	2033	Hungry Horse Dam	Bureau of Reclamation	9/30/2011	9/30/2061	503	503	3.750%	3.750%					503		
490	2033	Bonneville Dam	Corps of Engineers	9/30/2011	9/30/2061	10,962	10,962	3.750%	3.750%					10,962		
491	2033	Chief Joseph	Corps of Engineers	9/30/2011	9/30/2061	4	4	3.750%	3.750%					4		
492	2033	Columbia Basin	Bureau of Reclamation	9/30/2011	9/30/2061	1,723	1,723	3.750%	3.750%					1,723		
493	2033	Columbia River Fish Mitigation	Corps of Engineers	9/30/2011	9/30/2061	106,014	106,014	3.750%	3.750%					106,014		
494	2033	Cougar	Corps of Engineers	9/30/2011	9/30/2061	282	282	3.750%	3.750%					282		
495	2033	Green Peter/Foster	Corps of Engineers	9/30/2011	9/30/2061	87	87	3.750%	3.750%					87		
496	2033	Hills Creek	Corps of Engineers	9/30/2011	9/30/2061	12	12	3.750%	3.750%					12		
497	2033	Ice Harbor	Corps of Engineers	9/30/2011	9/30/2061	819	819	3.750%	3.750%					819		
498	2033	John Day	Corps of Engineers	9/30/2011	9/30/2061	175	175	3.750%	3.750%					175		
499	2033	Libby	Corps of Engineers	9/30/2011	9/30/2061	152	152	3.750%	3.750%					152		
500	2033	Lookout Dam	Corps of Engineers	9/30/2011	9/30/2061	17	17	3.750%	3.750%					17		
501	2033	Lost Creek	Corps of Engineers	9/30/2011	9/30/2061	7	7	3.750%	3.750%					7		
502	2033	Lower Granite	Corps of Engineers	9/30/2011	9/30/2061	8	8	3.750%	3.750%					8		
503	2033	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2011	9/30/2061	122	122	3.750%	3.750%					122		
504	2033	McNary	Corps of Engineers	9/30/2011	9/30/2061	565	565	3.750%	3.750%					565		
505	2033	Columbia Basin	Bureau of Reclamation	9/30/2014	9/30/2064	19	19	3.875%	3.875%					19		
506	2033	Cougar	Corps of Engineers	9/30/2014	9/30/2064	12	12	3.875%	3.875%					12		
507	2033	Hungry Horse Dam	Bureau of Reclamation	9/30/2014	9/30/2064	12	12	3.875%	3.875%					12		
508	2033	Bonneville Dam	Corps of Engineers	9/30/2014	9/30/2064			3.875%	3.875%							
509	2033	Columbia River Fish Mitigation	Corps of Engineers	9/30/2014	9/30/2064	110,071	110,071	3.875%	3.875%					110,071		
510	2033	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2014	9/30/2064	18	18	3.875%	3.875%					18		
511	2033	Green Peter/Foster	Corps of Engineers	9/30/2014	9/30/2064	385	385	3.875%	3.875%					385		
512	2033	Lower Granite	Corps of Engineers	9/30/2014	9/30/2064	2,644	2,644	3.875%	3.875%					2,644		
513	2033	Lower Monument	Corps of Engineers	9/30/2014	9/30/2064	1,430	1,430	3.875%	3.875%					1,430		
514	2033	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2014	9/30/2064	222	222	3.875%	3.875%					222		
515	2033	McNary	Corps of Engineers	9/30/2014	9/30/2064	759	759	3.875%	3.875%					759		
516	2033	Columbia River Fish Mitigation	Corps of Engineers	9/30/2017	9/30/2067	151,772	151,772	3.680%	3.680%					140,456		
517	2033	Columbia River Fish Mitigation	Corps of Engineers	9/30/2018	9/30/2068	81,269	81,269	3.930%	3.930%					81,269		
518		**FY 2033 Subtotal:**	**-**	**-**	**-**	**648,063**	**627,816**							**616,500**		
519	2034	Bureau Direct	-	2/27/2012	2/28/2034	55,000	55,000	0.515%	0.515%					55,000		
520	2034	Bureau Direct	-	6/30/2013	1/31/2039	35,000	35,000	0.505%	0.505%					30,418		4,582
521	2034	Corps	-	2/29/2016	2/28/2045	3,000	3,000	0.515%	0.515%					2,272		728
522	2034	Cougar	Corps of Engineers	9/30/2012	9/30/2062	139	139	3.375%	3.375%					139		
523	2034	Hungry Horse Dam	Bureau of Reclamation	9/30/2012	9/30/2062	3	3	3.375%	3.375%					3		
524	2034	Minidoka/Palisades	Bureau of Reclamation	9/30/2012	9/30/2062	7	7	3.375%	3.375%					7		
525	2034	Green Peter/Foster	Corps of Engineers	9/30/2012	9/30/2062	28	28	3.375%	3.375%					28		

TABLE 13D
Application of Amortization, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
526	2034	Chief Joseph	Corps of Engineers	9/30/2012	9/30/2062	28	28	3.375%	3.375%					28		
527	2034	Columbia Basin	Bureau of Reclamation	9/30/2012	9/30/2062	11	11	3.375%	3.375%					11		
528	2034	Columbia River Fish Mitigation	Corps of Engineers	9/30/2012	9/30/2062	101,616	101,616	3.375%	3.375%					101,616		
529	2034	Hills Creek	Corps of Engineers	9/30/2012	9/30/2062	142	142	3.375%	3.375%					142		
530	2034	Ice Harbor	Corps of Engineers	9/30/2012	9/30/2062	115	115	3.375%	3.375%					115		
531	2034	John Day	Corps of Engineers	9/30/2012	9/30/2062	6,161	6,161	3.375%	3.375%					6,161		
532	2034	Libby	Corps of Engineers	9/30/2012	9/30/2062	16	16	3.375%	3.375%					16		
533	2034	Lookout Dam	Corps of Engineers	9/30/2012	9/30/2062	294	294	3.375%	3.375%					294		
534	2034	Lower Monument	Corps of Engineers	9/30/2012	9/30/2062	89	89	3.375%	3.375%					89		
535	2034	McNary	Corps of Engineers	9/30/2012	9/30/2062	12	11	3.375%	3.375%					11		
536	2034	RRP - Green Springs	Bureau of Reclamation	9/30/2012	9/30/2062	2	2	3.375%	3.375%					2		
537	2034	Bonneville Dam	Corps of Engineers	9/30/2013	9/30/2063	268	268	2.875%	2.875%					268		
538	2034	Chief Joseph	Corps of Engineers	9/30/2013	9/30/2063	10	10	2.875%	2.875%					10		
539	2034	Columbia Basin	Bureau of Reclamation	9/30/2013	9/30/2063	3,083	3,083	2.875%	2.875%					3,083		
540	2034	Columbia River Fish Mitigation	Corps of Engineers	9/30/2013	9/30/2063	95,274	95,274	2.875%	2.875%					95,274		
541	2034	Cougar	Corps of Engineers	9/30/2013	9/30/2063	4,088	4,088	2.875%	2.875%					4,088		
542	2034	Detroit Lake/Big Cliff	Corps of Engineers	9/30/2013	9/30/2063	528	528	2.875%	2.875%					528		
543	2034	John Day	Corps of Engineers	9/30/2013	9/30/2063	17	17	2.875%	2.875%					17		
544	2034	Little Goose	Corps of Engineers	9/30/2013	9/30/2063	66	66	2.875%	2.875%					66		
545	2034	McNary	Corps of Engineers	9/30/2013	9/30/2063	1,000	1,000	2.875%	2.875%					1,000		
546	2034	RRP - Green Springs	Bureau of Reclamation	9/30/2013	9/30/2063	1	1	2.875%	2.875%					1		
547	2034	Replacements	-	3/31/2020	3/31/2065	218,435	218,435	4.670%	4.670%					184,446		
548	2034	Boise	Bureau of Reclamation	9/30/2015	9/30/2065	5	5	3.250%	3.250%					5		
549	2034	Bonneville Dam	Corps of Engineers	9/30/2015	9/30/2065	102	102	3.250%	3.250%					102		
550	2034	Columbia Basin	Bureau of Reclamation	9/30/2015	9/30/2065			3.250%	3.250%							
551	2034	Columbia River Fish Mitigation	Corps of Engineers	9/30/2015	9/30/2065	64,288	64,288	3.250%	3.250%					64,288		
552	2034	Green Peter/Foster	Corps of Engineers	9/30/2015	9/30/2065	19	19	3.250%	3.250%					19		
553	2034	Hungry Horse Dam	Bureau of Reclamation	9/30/2015	9/30/2065	32	32	3.250%	3.250%					32		
554	2034	Ice Harbor	Corps of Engineers	9/30/2015	9/30/2065	3,175	3,175	3.250%	3.250%					3,175		
555	2034	John Day	Corps of Engineers	9/30/2015	9/30/2065	163	163	3.250%	3.250%					163		
556	2034	Lower Granite	Corps of Engineers	9/30/2015	9/30/2065	1,599	1,599	3.250%	3.250%					1,599		
557	2034	Minidoka/Palisades	Bureau of Reclamation	9/30/2015	9/30/2065	19,237	19,237	3.250%	3.250%					19,237		
558	2034	The Dalles	Corps of Engineers	9/30/2015	9/30/2065	456	456	3.250%	3.250%					456		
559	2034	Columbia River Fish Mitigation	Corps of Engineers	9/30/2016	9/30/2066	45,326	45,326	3.000%	3.000%					45,326		
560	2034	Columbia River Fish Mitigation	Corps of Engineers	9/30/2017	9/30/2067	151,772	11,316	3.680%	3.680%					11,316		
561		**FY 2034 Subtotal:**	**-**	**-**	**-**	**810,606**	**670,150**							**630,850**		**5,311**
562	2035	Replacements	-	3/31/2020	3/31/2065	218,435	33,989	4.670%	4.670%					33,989		
563	2035	Replacements	-	3/31/2021	3/31/2066	218,435	218,435	4.670%	4.670%					218,435		
564	2035	Replacements	-	3/31/2022	3/31/2067	218,435	218,435	4.670%	4.670%					218,435		
565	2035	Replacements	-	3/31/2023	3/31/2068	218,435	218,435	4.670%	4.670%					172,865		
566		**FY 2035 Subtotal:**	**-**	**-**	**-**	**873,742**	**689,296**							**643,725**		
567	2036	Replacements	-	3/31/2023	3/31/2068	218,435	45,571	4.670%	4.670%					45,571		
568	2036	Replacements	-	3/31/2024	3/31/2069	218,435	218,435	4.670%	4.670%					218,435		
569	2036	Replacements	-	3/31/2025	3/31/2070	218,435	218,435	4.670%	4.670%					218,435		
570	2036	Replacements	-	3/31/2026	3/31/2071	218,435	218,435	4.670%	4.670%					159,932		
571		**FY 2036 Subtotal:**	**-**	**-**	**-**	**873,742**	**700,877**							**642,374**		
572	2037	Replacements	-	3/31/2026	3/31/2071	218,435	58,503	4.670%	4.670%					58,503		
573	2037	Replacements	-	3/31/2027	3/31/2072	218,435	218,435	4.670%	4.670%					218,435		
574	2037	Replacements	-	3/31/2028	3/31/2073	218,435	218,435	4.670%	4.670%					218,435		
575	2037	Replacements	-	3/31/2029	3/31/2074	218,435	218,435	4.670%	4.670%					181,433		
576		**FY 2037 Subtotal:**	**-**	**-**	**-**	**873,742**	**713,809**							**676,807**		
577	2038	Replacements	-	3/31/2029	3/31/2074	218,435	37,002	4.670%	4.670%					37,002		
578	2038	Replacements	-	3/31/2030	3/31/2075	218,435	218,435	4.670%	4.670%					218,435		
579	2038	Replacements	-	3/31/2031	3/31/2076	218,435	218,435	4.670%	4.670%					218,435		
580	2038	Replacements	-	3/31/2032	3/31/2077	218,435	218,435	4.670%	4.670%					218,435		
581	2038	Replacements	-	3/31/2033	3/31/2078	218,435	218,435	4.670%	4.670%					32,925		
582		**FY 2038 Subtotal:**	**-**	**-**	**-**	**1,092,177**	**910,744**							**725,234**		

TABLE 13D
Application of Amortization, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
583	2039	Replacements	-	3/31/2033	3/31/2078	218,435	185,510	4.670%	4.670%					185,510		
584	2039	Replacements	-	3/31/2034	3/31/2079	218,435	218,435	4.670%	4.670%					218,435		
585	2039	Replacements	-	3/31/2035	3/31/2080	218,435	218,435	4.670%	4.670%					218,435		
586	2039	Replacements	-	3/31/2036	3/31/2081	218,435	218,435	4.670%	4.670%					145,766		
587		**FY 2039 Subtotal:**	**-**	**-**	**-**	**873,742**	**840,817**							**768,147**		
588	2040	Replacements	-	3/31/2036	3/31/2081	218,435	72,670	4.670%	4.670%					72,670		
589	2040	Replacements	-	3/31/2037	3/31/2082	218,435	218,435	4.670%	4.670%					218,435		
590	2040	Replacements	-	3/31/2038	3/31/2083	218,435	218,435	4.670%	4.670%					218,435		
591	2040	Replacements	-	3/31/2039	3/31/2084	218,435	218,435	4.670%	4.670%					218,435		
592		**FY 2040 Subtotal:**	**-**	**-**	**-**	**873,742**	**727,976**							**727,976**		
593	2041	Replacements	-	3/31/2040	3/31/2085	218,435	218,435	4.670%	4.670%					218,435		
594		**FY 2041 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
595	2042	Replacements	-	3/31/2041	3/31/2086	218,435	218,435	4.670%	4.670%					218,435		
596		**FY 2042 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
597	2043	Replacements	-	3/31/2042	3/31/2087	218,435	218,435	4.670%	4.670%					218,435		
598		**FY 2043 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
599	2044	Replacements	-	3/31/2043	3/31/2088	218,435	218,435	4.670%	4.670%					218,435		
600		**FY 2044 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
601	2045	Replacements	-	3/31/2044	3/31/2089	218,435	218,435	4.670%	4.670%					218,435		
602		**FY 2045 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
603	2046	Replacements	-	3/31/2045	3/31/2090	218,435	218,435	4.670%	4.670%					218,435		
604		**FY 2046 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
605	2047	Replacements	-	3/31/2046	3/31/2091	218,435	218,435	4.670%	4.670%					218,435		
606		**FY 2047 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
607	2048	Replacements	-	3/31/2047	3/31/2092	218,435	218,435	4.670%	4.670%					218,435		
608		**FY 2048 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
609	2049	Replacements	-	3/31/2048	3/31/2093	218,435	218,435	4.670%	4.670%					218,435		
610		**FY 2049 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
611	2050	Replacements	-	3/31/2049	3/31/2094	218,435	218,435	4.670%	4.670%					218,435		
612		**FY 2050 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
613	2051	Replacements	-	3/31/2050	3/31/2095	218,435	218,435	4.670%	4.670%					218,435		
614		**FY 2051 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
615	2052	Replacements	-	3/31/2051	3/31/2096	218,435	218,435	4.670%	4.670%					218,435		
616		**FY 2052 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
617	2053	Replacements	-	3/31/2052	3/31/2097	218,435	218,435	4.670%	4.670%					218,435		
618		**FY 2053 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
619	2054	Replacements	-	3/31/2053	3/31/2098	218,435	218,435	4.670%	4.670%					218,435		
620		**FY 2054 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
621	2055	Replacements	-	3/31/2054	3/31/2099	218,435	218,435	4.670%	4.670%					218,435		
622		**FY 2055 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
623	2056	Replacements	-	3/31/2055	3/31/2100	218,435	218,435	4.670%	4.670%					218,435		
624		**FY 2056 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
625	2057	Replacements	-	3/31/2056	3/31/2101	218,435	218,435	4.670%	4.670%					218,435		
626		**FY 2057 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		

TABLE 13D
Application of Amortization, SHIFT STUDY
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Year	Project	Debt Type	In Service	Bond Due Date	Initial Principal	Current Principal	Original Rate	Effective Rate	Refinance Type	Refinanced Date	Rolled Maturity Date	Roll Rate	Principal Paid	Premium	Discount
627	2058	Boise	Bureau of Reclamation	9/30/2008	9/30/2058	64	64	4.875%	4.875%					64		
628	2058	Bonneville Dam	Corps of Engineers	9/30/2008	9/30/2058	14,609	14,609	4.875%	4.875%					14,609		
629	2058	Columbia River Fish Mitigation	Corps of Engineers	9/30/2008	9/30/2058	36,554	36,554	4.875%	4.875%					36,554		
630	2058	Dworshak	Corps of Engineers	9/30/2008	9/30/2058	10	10	4.875%	4.875%					10		
631	2058	Hungry Horse Dam	Bureau of Reclamation	9/30/2008	9/30/2058	76	76	4.875%	4.875%					76		
632	2058	Ice Harbor	Corps of Engineers	9/30/2008	9/30/2058	14	14	4.875%	4.875%					14		
633	2058	Libby	Corps of Engineers	9/30/2008	9/30/2058	1,567	1,567	4.875%	4.875%					1,567		
634	2058	Little Goose	Corps of Engineers	9/30/2008	9/30/2058	13	13	4.875%	4.875%					13		
635	2058	Lower Granite	Corps of Engineers	9/30/2008	9/30/2058	24	24	4.875%	4.875%					24		
636	2058	Lower Monument	Corps of Engineers	9/30/2008	9/30/2058	9	9	4.875%	4.875%					9		
637	2058	Lower Snake Fish and Wildlife	Lower Snake Fish & Wildlife	9/30/2008	9/30/2058	74	74	4.875%	4.875%					74		
638	2058	McNary	Corps of Engineers	9/30/2008	9/30/2058	215	215	4.875%	4.875%					215		
639	2058	The Dalles	Corps of Engineers	9/30/2008	9/30/2058	1,651	1,651	4.875%	4.875%					1,651		
640	2058	Chief Joseph	Corps of Engineers	9/30/2008	9/30/2058	3,500	3,500	4.875%	4.875%					3,500		
641	2058	Columbia Basin	Bureau of Reclamation	9/30/2008	9/30/2058	835	835	4.875%	4.875%					835		
642	2058	Replacements	-	3/31/2057	3/31/2102	218,435	218,435	4.670%	4.670%					218,435		
643		**FY 2058 Subtotal:**	**-**	**-**	**-**	**277,651**	**277,651**							**277,651**		
644	2059	Albeni Falls	Corps of Engineers	9/30/2009	9/30/2059	57	57	4.375%	4.375%					57		
645	2059	Columbia Basin	Bureau of Reclamation	9/30/2009	9/30/2059	1,338	1,338	4.375%	4.375%					1,338		
646	2059	Hungry Horse Dam	Bureau of Reclamation	9/30/2009	9/30/2059	60	60	4.375%	4.375%					60		
647	2059	John Day	Corps of Engineers	9/30/2009	9/30/2059	1,548	1,548	4.375%	4.375%					1,548		
648	2059	Yakima Chandler/Kenniwick	Bureau of Reclamation	9/30/2009	9/30/2059	15	15	4.375%	4.375%					15		
649	2059	Replacements	-	3/31/2058	3/31/2103	218,435	218,435	4.670%	4.670%					218,435		
650		**FY 2059 Subtotal:**	**-**	**-**	**-**	**221,454**	**221,454**							**221,454**		
651	2060	Replacements	-	3/31/2059	3/31/2104	218,435	218,435	4.670%	4.670%					218,435		
652		**FY 2060 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
653	2061	Replacements	-	3/31/2060	3/31/2105	218,435	218,435	4.670%	4.670%					218,435		
654		**FY 2061 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
655	2062	Replacements	-	3/31/2061	3/31/2106	218,435	218,435	4.670%	4.670%					218,435		
656		**FY 2062 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
657	2063	Replacements	-	3/31/2062	3/31/2107	218,435	218,435	4.670%	4.670%					218,435		
658		**FY 2063 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
659	2064	Replacements	-	3/31/2063	3/31/2108	218,435	218,435	4.670%	4.670%					218,435		
660		**FY 2064 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
661	2065	Replacements	-	3/31/2064	3/31/2109	218,435	218,435	4.670%	4.670%					218,435		
662		**FY 2065 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
663	2066	Replacements	-	3/31/2065	3/31/2110	218,435	218,435	4.670%	4.670%					218,435		
664		**FY 2066 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
665	2067	Replacements	-	3/31/2066	3/31/2111	218,435	218,435	4.670%	4.670%					218,435		
666		**FY 2067 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
667	2068	Replacements	-	3/31/2067	3/31/2112	218,435	218,435	4.670%	4.670%					218,435		
668		**FY 2068 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
669	2069	Replacements	-	3/31/2068	3/31/2113	218,435	218,435	4.670%	4.670%					218,435		
670		**FY 2069 Subtotal:**	**-**	**-**	**-**	**218,435**	**218,435**							**218,435**		
671	**Grand Total**					**19,814,583**	**18,177,069**							**17,191,055**	**13,075**	**5,311**

TABLE 13E:
Summary of Interest, Shift Study
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

Obligation Type	General Project	Specific Project	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
		Boise	295	295	295	295	295	216	54	54	54	54	54	54	8	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3
		Columbia Basin	5,577	5,551	5,551	5,551	5,355	5,298	5,056	1,959	988	988	988	988	427	380	380	291	291	254	188	99	99	99	99	99	99	99	99	99
		Columbia Basin 3rd Powerhouse	25,876	3,120	903	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hungry Horse Dam	834	710	710	267	267	266	258	226	226	226	226	75	60	60	60	60	60	27	7	6	6	6	6	6	6	6	6	6
	Bureau of Reclamation	Minidoka/Palisades	4,268	4,268	4,268	4,268	4,268	807	628	625	625	625	625	625	625	625	625	625	625	625	625	-	-	-	-	-	-	-	-	-
		RRP - Green Springs	655	655	655	655	655	655	655													-	-	-	-	-	-	-	-	-
		Yakima Chandler/Kenniwick	43	43	43	43	43	43	43	43	43	43	43	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		Yakima Roza	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bureau of Reclamation Subtotal:	37,548	14,643	12,426	11,080	10,884	7,287	6,695	2,908	1,937	1,937	1,937	1,743	1,121	1,070	1,070	981	980	910	825	109	109	109	109	109	109	109	109	109
		Albeni Falls	208	208	208	208	60	60	29	29	29	29	29	29	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2
		Bonneville 2nd Powerhouse	26,226	1,198	705	298	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bonneville Dam	8,323	7,164	7,164	7,164	7,086	6,896	6,884	5,387	4,644	4,172	2,735	2,500	1,489	1,433	1,433	1,425	1,315	1,134	723	712	712	712	712	712	712	712	712	712
		Chief Joseph	16,243	1,895	1,895	1,608	1,450	1,372	1,325	1,325	1,305	1,305	1,305	1,254	1,254	1,254	1,254	1,254	1,254	172	172	171	171	171	171	171	171	171	171	171
		Columbia River Fish Mitigation	61,273	62,632	68,217	71,242	70,720	70,546	68,713	67,305	66,062	63,241	59,967	59,183	55,805	53,955	48,033	37,468	33,323	28,420	11,816	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782
		Cougar	765	765	765	765	765	765	763	763	763	763	569	569	152	146	146	141	141	133	122	-	-	-	-	-	-	-	-	-
		Detroit Lake/Big Cliff	100	100	100	100	98	98	98	81	80	80	80	69	16	16	16	16	16	16	15	-	-	-	-	-	-	-	-	-
Appropriation		Dworshak	890	860	860	860	776	773	230	230	185	185	185	146	110	110	110	107												
		Green Peter/Foster	33	33	33	33	33	31	31	20	20	20	20	20	20	20	20	20	20	20	2	-	-	-	-	-	-	-	-	-
		Hills Creek	171	171	171	171	171	169	8	8	8	8	8	5	5	5	5	5	5	5	5	-	-	-	-	-	-	-	-	-
	Corps of Engineers	Ice Harbor	910	905	878	878	878	878	840	795	443	264	262	262	262	262	262	262	147	138	108	1	1	1	1	1	1	1	1	1
		John Day	1,653	1,653	1,639	1,046	1,046	1,046	864	827	639	487	487	342	330	330	303	303	303	288	281	68	68	68	68	68	68	68	68	68
		Libby	1,537	1,515	458	458	458	458	411	84	84	84	84	84	84	84	84	84	84	83	77	76	76	76	76	76	76	76	76	76
		Little Goose	4,410	862	776	776	629	426	426	155	154	150	143	143	143	143	143	143	4	3	3	1	1	1	1	1	1	1	1	1
		Lookout Dam	740	740	740	735	735	735	423	423	423	423	416	39	11	11	11	11	11	11	10	-	-	-	-	-	-	-	-	-
		Lost Creek	900	17	17	11	9	9	9												-	-	-	-	-	-	-	-	-	-
		Lower Granite	3,833	804	804	804	759	759	710	591	475	475	473	453	453	453	453	453	205	156	53	1	1	1	1	1	1	1	1	1
		Lower Monument	3,662	736	717	582	581	581	581	387	386	202	201	174	174	174	161	161	59	59	3									
		McNary	746	744	744	743	698	698	698	637	637	307	302	274	274	274	90	90	90	90	40	10	10	10	10	10	10	10	10	10
		The Dalles	2,418	2,418	2,418	2,418	2,275	2,275	2,117	2,117	2,049	2,040	2,040	194	187	187	95	95	95	95	95	80	80	80	80	80	80	80	80	80
		Corps of Engineers Subtotal:	135,043	85,422	89,312	90,901	89,256	88,576	85,161	81,165	78,386	74,236	69,304	65,739	60,772	58,860	52,623	42,041	37,077	30,826	13,528	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	16,534	15,857	3,872	1,301	436	436	187	168	119	107	102	101	101	101	84	84	84	17	4	4	4	4	4	4	4	4	4	4
		Lower Snake Fish & Wildlife Subtotal:	16,534	15,857	3,872	1,301	436	436	187	168	119	107	102	101	101	101	84	84	84	17	4	4	4	4	4	4	4	4	4	4
	Appropriation Subtotal:		189,125	115,921	105,610	103,281	100,577	96,299	92,043	84,242	80,443	76,280	71,343	67,584	61,994	60,032	53,778	43,107	38,142	31,752	14,357	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019
		(Less Interest Income)	(1,990)	(1,327)	(1,026)	(1,826)	(1,607)	(1,676)	(1,633)	(1,628)	(1,589)	(1,522)	(1,524)	(1,527)	(1,451)	(2,645)	(2,267)	(2,495)	(2,991)	(3,139)	(3,107)	(3,104)	(3,147)	(3,193)	(3,283)	(3,475)	(3,541)	(3,623)	(3,623)	(3,623)
		Bureau Direct	28,376	29,622	31,487	34,620	39,255	36,783	34,242	33,649	33,564	32,915	32,266	31,384	28,548	22,671	17,279	12,748	5,747	1,271	229	-	-	-	-	-	-	-	-	-
		Interest Accrual	5,616	5,769	6,072	6,184	5,168	5,004	5,004	4,968	4,968	4,644	4,644	4,353	3,789	2,908	2,078	1,373	146	53	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	(5,297)	(5,616)	(5,769)	(6,072)	(6,184)	(5,168)	(5,004)	(5,004)	(4,968)	(4,968)	(4,644)	(4,644)	(4,353)	(3,789)	(2,908)	(2,078)	(1,373)	(146)	(53)	-	-	-	-	-	-	-	-	-
		Conservation	9,052	9,050	8,937	8,887	8,887	8,887	8,409	7,289	2,538	1,883	849	136	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	2,025	1,983	1,967	1,967	1,967	1,887	1,829	882	658	583	50	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	(1,975)	(2,025)	(1,983)	(1,967)	(1,967)	(1,967)	(1,887)	(1,829)	(882)	(658)	(583)	(50)	(50)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Construction (AS)	715	693	716	907	966	769	650	615	452	231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	189	171	171	151	58	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	(169)	(189)	(171)	(171)	(151)	(58)	(24)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BPA Borrowing	Corps	133	1,941	8,419	15,380	21,053	21,053	21,053	21,053	21,053	21,053	21,053	21,053	20,740	17,900	15,380	12,659	6,271	2,937	8	-	-	-	-	-	-	-	-	-
Treasury		Interest Accrual	717	1,249	1,827	2,296	2,296	2,296	2,296	2,296	2,296	2,296	2,296	2,296	2,296	1,827	1,697	914	466	1	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	-	(717)	(1,249)	(1,827)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(2,296)	(1,827)	(1,697)	(914)	(466)	(1)	-	-	-	-	-	-	-	-	-
		Fish and Wildlife	10,814	10,830	12,544	14,137	14,950	14,950	14,950	13,981	14,038	13,080	11,640	9,051	7,997	6,459	5,794	5,740	3,710	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	1,985	1,985	1,985	1,676	1,676	1,676	1,676	1,676	1,433	1,433	853	422	422	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	(1,982)	(1,985)	(1,985)	(1,985)	(1,676)	(1,676)	(1,676)	(1,676)	(1,676)	(1,433)	(1,433)	(853)	(422)	(422)	(3)	(3)	-	-	-	-	-	-	-	-	-	-	-	-
		Technology (G)	537	544	694	876	1,067	810	553	373	96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual	90	90	90	90	90	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Interest Accrual Reversal	(85)	(90)	(90)	(90)	(90)	(90)	(5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BPA Borrowing Subtotal:	48,751	51,977	62,637	73,232	83,463	81,214	78,138	74,351	69,684	67,241	63,171	59,375	55,280	42,617	35,225	27,160	11,063	510	(2,925)	(3,104)	(3,147)	(3,193)	(3,283)	(3,475)	(3,541)	(3,623)	(3,623)	(3,623)
		Replacements	-	-	-	-	5,100	15,301	25,502	35,703	45,904	56,105	66,306	76,507	86,708	96,909	107,110	117,311	127,512	137,713	143,607	134,470	114,640	94,038	71,502	46,832	22,099	10,201	10,201	10,201
	Federal Generation Replacements	**Federal Generation Replacements Subtotal:**	-	-	-	-	5,100	15,301	25,502	35,703	45,904	56,105	66,306	76,507	86,708	96,909	107,110	117,311	127,512	137,713	143,607	134,470	114,640	94,038	71,502	46,832	22,099	10,201	10,201	10,201
	Treasury Subtotal:		48,751	51,977	62,637	73,232	88,564	96,515	103,640	110,054	115,589	123,346	129,477	135,882	141,988	139,526	142,335	144,471	138,575	138,223	140,682	131,365	111,493	90,845	68,218	43,357	18,558	6,578	6,578	6,578
Grand Total:			**$237,876**	**$167,898**	**$168,247**	**$176,513**	**$189,140**	**$192,814**	**$195,683**	**$194,296**	**$196,031**	**$199,626**	**$200,820**	**$203,466**	**$203,981**	**$199,558**	**$196,113**	**$187,577**	**$176,717**	**$169,975**	**$155,039**	**$134,384**	**$114,512**	**$93,864**	**$71,237**	**$46,376**	**$21,577**	**$9,597**	**$9,597**	**$9,597**

TABLE 13E:
Summary of Interest, Shift Study
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

Obligation Type	General Project	Specific Project	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	Total
		Boise	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	2,119
		Columbia Basin	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	59	-	-	-	-	-	-	-	-	-	-	48,501
		Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29,899
		Hungry Horse Dam	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	3	-	-	-	-	-	-	-	-	-	-	4,781
	Bureau of Reclamation	Minidoka/Palisades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30,280
		RRP - Green Springs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,585
		Yakima Chandler/Kenniwick	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	499
		Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
		Bureau of Reclamation Subtotal:	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109	62	-	-	-	-	-	-	-	-	-	-	120,670
		Albeni Falls	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	1,216
		Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28,454
		Bonneville Dam	712	712	712	712	712	712	712	712	712	712	712	712	712	712	712	-	-	-	-	-	-	-	-	-	-	-	96,165
		Chief Joseph	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171	-	-	-	-	-	-	-	-	-	-	-	42,989
		Columbia River Fish Mitigation	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	1,782	-	-	-	-	-	-	-	-	-	-	-	1,100,690
		Cougar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,763
		Detroit Lake/Big Cliff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,195
Appropriation		Dworshak																-	-	-	-	-	-	-	-	-	-	-	6,630
		Green Peter/Foster	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	448
		Hills Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,105
	Corps of Engineers	Ice Harbor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	9,649
		John Day	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	-	-	-	-	-	-	-	-	-	-	15,560
		Libby	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	-	-	-	-	-	-	-	-	-	-	-	8,131
		Little Goose	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	9,644
		Lookout Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,648
		Lost Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	975
		Lower Granite	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	13,197
		Lower Monument																-	-	-	-	-	-	-	-	-	-	-	9,592
		McNary	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	-	8,427
		The Dalles	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	-	-	-	-	-	-	-	-	-	-	-	27,559
		Corps of Engineers Subtotal:	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	2,906	70	-	-	-	-	-	-	-	-	-	-	1,398,039
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	39,785
		Lower Snake Fish & Wildlife Subtotal:	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	39,785
	Appropriation Subtotal:		3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	3,019	132	-	-	-	-	-	-	-	-	-	-	1,558,493
		(Less Interest Income)	(3,120)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(111,272)
		Bureau Direct	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	486,653
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72,743
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(78,040)
		Conservation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74,865
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,850
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(17,825)
		Construction (AS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,717
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	763
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(933)
	BPA Borrowing	Corps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	270,197
Treasury		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31,658
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(31,658)
		Fish and Wildlife	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184,663
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18,908
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(20,890)
		Technology (G)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,552
		Interest Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	454
		Interest Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(539)
		BPA Borrowing Subtotal:	(3,120)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	(1,623)	907,865
		Replacements	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	1,922,707
	Federal Generation Replacements	**Federal Generation Replacements Subtotal:**	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	10,201	1,922,707
	Treasury Subtotal:		7,081	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	8,578	2,830,572
Grand Total:			**$10,100**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$11,597**	**$8,710**	**$8,578**	**$8,578**	**$8,578**	**$8,578**	**$8,578**	**$8,578**	**$8,578**	**$8,578**	**$8,578**	**$8,578**	**$4,389,065**

TABLE 13F:
Summary of Amortization, Shift Study
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

Obligation Type	General Project	Specific Project	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
		Boise	-	-	-	-	1,098	2,266	-	-	-	-	-	903	76	-	-	17	-	-	5	-	-	-	-	-	-	-	-	-	-
		Columbia Basin	360	-	-	2,740	794	3,393	52,699	16,526	-	-	-	10,963	929	-	1,987	-	877	1,742	3,093	-	-	-	-	-	-	-	-	-	-
		Columbia Basin 3rd Powerhouse	318,259	31,007	12,631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Hungry Horse Dam	1,731	-	6,190	-	17	111	552	-	-	-	2,951	294	-	-	-	-	779	515	34	-	-	-	-	-	-	-	-	-	-
	Bureau of Reclamation	Minidoka/Palisades	-	-	-	-	48,405	2,506	42	-	-	-	-	-	-	-	-	-	-	-	19,244	-	-	-	-	-	-	-	-	-	-
		RRP - Green Springs	-	-	-	-	-	-	11,145	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-
		Yakima Chandler/Kenniwick	-	-	-	-	-	-	-	-	-	-	833	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Yakima Roza	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bureau of Reclamation Subtotal:	320,350	31,007	18,821	2,740	50,314	8,276	64,453	16,526	-	-	3,784	12,160	1,005	-	1,987	17	1,656	2,257	22,379	-	-	-	-	-	-	-	-	-	-
		Albeni Falls	-	-	-	2,079	-	431	-	-	-	-	-	481	-	-	-	-	42	-	-	-	-	-	-	-	-	-	-	-	-
		Bonneville 2nd Powerhouse	350,037	6,892	5,700	3,791	376	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bonneville Dam	16,210	-	-	1,093	2,663	161	24,446	13,573	8,772	26,741	4,581	19,725	1,124	-	182	2,446	4,169	10,963	370	-	-	-	-	-	-	-	-	-	-
		Chief Joseph	200,678	-	4,017	2,205	1,091	657	-	347	-	-	992	-	-	-	-	-	24,727	4	38	-	-	-	-	-	-	-	-	-	-
		Columbia River Fish Mitigation	-	-	2,373	36,909	2,431	29,938	23,235	22,912	52,488	63,501	15,285	66,325	36,986	131,602	234,792	94,732	118,507	437,810	317,820	-	-	-	-	-	-	-	-	-	-
		Cougar	-	-	-	-	-	26	-	-	-	3,622	-	8,130	120	-	109	-	180	293	4,227	-	-	-	-	-	-	-	-	-	-
		Detroit Lake/Big Cliff	-	-	-	38	-	-	282	18	-	-	223	1,031	-	-	-	-	-	18	528	-	-	-	-	-	-	-	-	-	-
Appropriation		Dworshak	427	-	-	1,162	53	7,588	-	828	-	-	761	713	-	-	73	2,425	-	-	-	-	-	-	-	-	-	-	-	-	-
		Green Peter/Foster	-	-	-	-	26	-	200	-	-	-	-	-	-	-	-	-	-	472	47	-	-	-	-	-	-	-	-	-	-
		Hills Creek	-	-	-	-	28	2,630	8	2	-	-	46	-	-	-	-	-	-	12	142	-	-	-	-	-	-	-	-	-	-
	Corps of Engineers	Ice Harbor	78	371	-	-	-	615	764	6,530	3,321	50	-	-	-	-	-	2,615	207	819	3,290	-	-	-	-	-	-	-	-	-	-
		John Day	-	195	8,298	-	-	2,940	619	3,510	2,830	-	2,827	233	-	601	-	-	356	175	6,342	-	-	-	-	-	-	-	-	-	-
		Libby	302	14,781	-	-	-	660	5,562	-	-	-	-	-	-	-	-	-	40	152	16	-	-	-	-	-	-	-	-	-	-
		Little Goose	49,625	1,200	-	2,060	2,841	1	4,608	27	67	146	-	-	-	-	-	3,171	30	-	66	-	-	-	-	-	-	-	-	-	-
		Lookout Dam	-	-	72	-	-	5,098	-	-	-	135	7,355	572	-	-	-	-	-	17	294	-	-	-	-	-	-	-	-	-	-
		Lost Creek	12,345	-	94	24	-	-	147	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-
		Lower Granite	42,368	-	-	634	-	677	2,025	2,131	-	42	393	-	-	-	-	5,669	1,156	2,653	1,599	-	-	-	-	-	-	-	-	-	-
		Lower Monument	40,925	264	1,886	10	-	-	3,301	29	3,423	22	527	-	-	285	-	2,332	-	1,430	89	-	-	-	-	-	-	-	-	-	-
		McNary	30	-	16	619	-	-	1,046	-	6,138	97	550	-	-	4,080	-	-	-	1,324	1,011	-	-	-	-	-	-	-	-	-	-
		The Dalles	-	-	-	1,991	-	2,588	-	1,226	182	-	36,019	140	-	2,030	-	-	-	-	456	-	-	-	-	-	-	-	-	-	-
		Corps of Engineers Subtotal:	713,025	23,703	22,456	52,615	9,509	54,011	66,243	51,133	77,221	94,355	69,559	97,350	38,230	138,598	235,157	113,390	149,414	456,146	336,335	-	-	-	-	-	-	-	-	-	-
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	9,472	167,614	35,970	12,085	-	3,702	325	897	230	98	4	-	-	379	-	-	1,545	343	-	-	-	-	-	-	-	-	-	-	-	-
		Lower Snake Fish & Wildlife Subtotal:	9,472	167,614	35,970	12,085	-	3,702	325	897	230	98	4	-	-	379	-	-	1,545	343	-	-	-	-	-	-	-	-	-	-	-	-
	Appropriation Subtotal:		1,042,848	222,323	77,247	67,440	59,823	65,989	131,021	68,556	77,451	94,453	73,347	109,509	39,234	138,977	237,144	113,407	152,616	458,747	358,715	-	-	-	-	-	-	-	-	-	-
		Bureau Direct	-	-	-	105,000	120,000	97,000	19,000	-	-	25,000	-	35,000	80,000	171,000	133,000	164,000	161,000	64,000	85,418	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Conservation	-	20,000	9,000	-	-	19,000	16,000	142,000	97,000	69,000	39,000	6,000	25,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Construction (AS)	10,500	15,150	-	5,250	18,100	7,000	5,800	5,250	5,950	5,950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BPA Borrowing	**Corps**	-	-	-	-	-	-	-	-	-	-	-	-	13,441	109,559	15,000	158,000	128,247	93,753	2,272	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Fish and Wildlife	-	-	-	46,000	-	-	31,000	-	25,000	-	80,000	55,000	26,000	56,000	8,000	13,000	140,000	-	-	-	-	-	-	-	-	-	-	-	-
Bond		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Technology (G)	-	-	-	-	-	35,000	11,000	5,000	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BPA Borrowing Subtotal:	10,500	35,150	9,000	156,250	138,100	158,000	82,800	152,250	132,950	99,950	119,000	96,000	144,441	336,559	156,000	335,000	429,247	157,753	87,689	-	-	-	-	-	-	-	-	-	-
		Replacements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184,446	643,725	642,374	676,807	725,234	768,147	727,976	218,435	218,435	218,435	218,435
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Federal Generation Replacements	Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Federal Generation Replacements Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184,446	643,725	642,374	676,807	725,234	768,147	727,976	218,435	218,435	218,435	218,435
		Discounts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(5,311)	-	-	-	-	-	-	-	-	-	-
	Make Whole Call	**Premiums**	-	-	-	-	-	-	-	-	-	2,642	-	2,902	5,387	1,334	-	-	810	-	-	-	-	-	-	-	-	-	-	-	-
		Make Whole Call Subtotal:	-	-	-	-	-	-	-	-	-	2,642	-	2,902	5,387	1,334	-	-	810	-	(5,311)	-	-	-	-	-	-	-	-	-	-
	Bond Subtotal:		10,500	35,150	9,000	156,250	138,100	158,000	82,800	152,250	132,950	99,950	119,000	96,000	144,441	336,559	156,000	335,000	429,247	157,753	277,446	643,725	642,374	676,807	725,234	768,147	727,976	218,435	218,435	218,435	218,435
	Irrigation Assistance	Irrigation Assistance	60,184	50,769	27,234	56,573	24,317	14,747	16,060	12,846	15,117	13,543	20,755	6,118	11,186	4,065	1,996	10,524	-	4,347	-	7,761	28,920	15,778	-	14,181	-	-	73,659	-	-
Irrigation		**Irrigation Assistance Subtotal:**	60,184	50,769	27,234	56,573	24,317	14,747	16,060	12,846	15,117	13,543	20,755	6,118	11,186	4,065	1,996	10,524	-	4,347	-	7,761	28,920	15,778	-	14,181	-	-	73,659	-	-
	Irrigation Subtotal:		60,184	50,769	27,234	56,573	24,317	14,747	16,060	12,846	15,117	13,543	20,755	6,118	11,186	4,065	1,996	10,524	-	4,347	-	7,761	28,920	15,778	-	14,181	-	-	73,659	-	-
Grand Total:			$1,113,532	$308,242	$113,481	$280,263	$222,241	$238,736	$229,881	$233,652	$225,518	$207,946	$213,102	$211,627	$194,862	$479,601	$395,139	$458,931	$581,863	$620,847	$636,161	$651,486	$671,294	$692,584	$725,234	$782,328	$727,976	$218,435	$292,094	$218,435	$218,435

TABLE 13F:
Summary of Amortization, Shift Study
October 1, 2015 - September 30, 2019 Cost Evaluation Period
($000s) (FY 2019)

Obligation Type	General Project	Specific Project	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	Total
		Boise	-	-	-	-	-	-	-	-	-	-	-	-	-	64	-	-	-	-	-	-	-	-	-	-	-	4,429
		Columbia Basin	-	-	-	-	-	-	-	-	-	-	-	-	-	835	1,338	-	-	-	-	-	-	-	-	-	-	98,275
		Columbia Basin 3rd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	361,897
		Hungry Horse Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	76	60	-	-	-	-	-	-	-	-	-	-	13,312
	Bureau of Reclamation	Minidoka/Palisades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70,197
		RRP - Green Springs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,148
		Yakima Chandler/Kenniwick	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	848
		Yakima Roza	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
		Bureau of Reclamation Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	975	1,414	-	-	-	-	-	-	-	-	-	-	560,121
		Albeni Falls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57	-	-	-	-	-	-	-	-	-	-	3,090
		Bonneville 2nd Powerhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	366,796
		Bonneville Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	14,609	-	-	-	-	-	-	-	-	-	-	-	151,828
		Chief Joseph	-	-	-	-	-	-	-	-	-	-	-	-	-	3,500	-	-	-	-	-	-	-	-	-	-	-	238,256
		Columbia River Fish Mitigation	-	-	-	-	-	-	-	-	-	-	-	-	-	36,554	-	-	-	-	-	-	-	-	-	-	-	1,724,201
		Cougar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16,708
		Detroit Lake/Big Cliff	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,138
Appropriation		Dworshak	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	14,040
		Green Peter/Foster	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745
		Hills Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,867
	Corps of Engineers	Ice Harbor	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	18,673
		John Day	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,548	-	-	-	-	-	-	-	-	-	-	30,473
		Libby	-	-	-	-	-	-	-	-	-	-	-	-	-	1,567	-	-	-	-	-	-	-	-	-	-	-	23,079
		Little Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	63,856
		Lookout Dam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,543
		Lost Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,618
		Lower Granite	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	59,370
		Lower Monument	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	54,534
		McNary	-	-	-	-	-	-	-	-	-	-	-	-	-	215	-	-	-	-	-	-	-	-	-	-	-	15,126
		The Dalles	-	-	-	-	-	-	-	-	-	-	-	-	-	1,651	-	-	-	-	-	-	-	-	-	-	-	46,282
		Corps of Engineers Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	58,167	1,605	-	-	-	-	-	-	-	-	-	-	2,858,221
	Lower Snake Fish & Wildlife	Lower Snake Fish and Wildlife	-	-	-	-	-	-	-	-	-	-	-	-	-	74	-	-	-	-	-	-	-	-	-	-	-	232,739
		Lower Snake Fish & Wildlife Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	74	-	-	-	-	-	-	-	-	-	-	-	232,739
	Appropriation Subtotal:		-	-	-	-	-	-	-	-	-	-	-	-	-	59,216	3,018	-	-	-	-	-	-	-	-	-	-	3,651,081
		Bureau Direct	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,259,418
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Conservation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	442,000
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Construction (AS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78,950
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BPA Borrowing	**Corps**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	520,272
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Fish and Wildlife	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	480,000
Bond		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Technology (G)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56,000
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BPA Borrowing Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,836,639
		Replacements	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	10,703,335
		Principal Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Federal Generation Replacements	Principal Accrual Reversal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Federal Generation Replacements Subtotal:	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	10,703,335
		Discounts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(5,311)
	Make Whole Call	**Premiums**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,075
		Make Whole Call Subtotal:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,764
	Bond Subtotal:		218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	218,435	13,545,285
	Irrigation Assistance	Irrigation Assistance	11,579	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502,258
Irrigation		**Irrigation Assistance Subtotal:**	11,579	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502,258
	Irrigation Subtotal:		11,579	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	502,258
Grand Total:			$230,014	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$277,651	$221,454	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$218,435	$17,698,624

14. REPAYMENT THEORY AND OPERATION

14.1 Introduction

The Bonneville Power Administration (BPA) is required to collect sufficient revenues to meet the annual expenses and cover the long-term obligations of the Federal Columbia River Power System (FCRPS).

The Repayment Program is used to determine whether a given set of annual revenues is sufficient to meet a given set of annual expenses and cover a given set of long-term obligations when applied in accordance with the requirements of Department of energy (DOE) Order RA 6120.2. The Program is also used to determine by what minimum factor the future revenues can be multiplied to obtain a new set of revenues which will be sufficient.

The revenues and expenses of the cost evaluation year will be assigned to all future years. This will have the effect of levelizing the long-term obligations over all future years.

14.2 Repayment Program Logic

The diagrams on the following pages show the flow of logic in BPA's repayment program. The first diagram shows the logic of the binary search used to locate minimum sufficient revenues. A necessary part of this search is the test for sufficiency. The logic of the test for sufficiency is shown on the remaining two diagrams.

The equations which are referred to are:

- Revenue Equation: Net revenues of each year are expended on interest and payments on the principles.

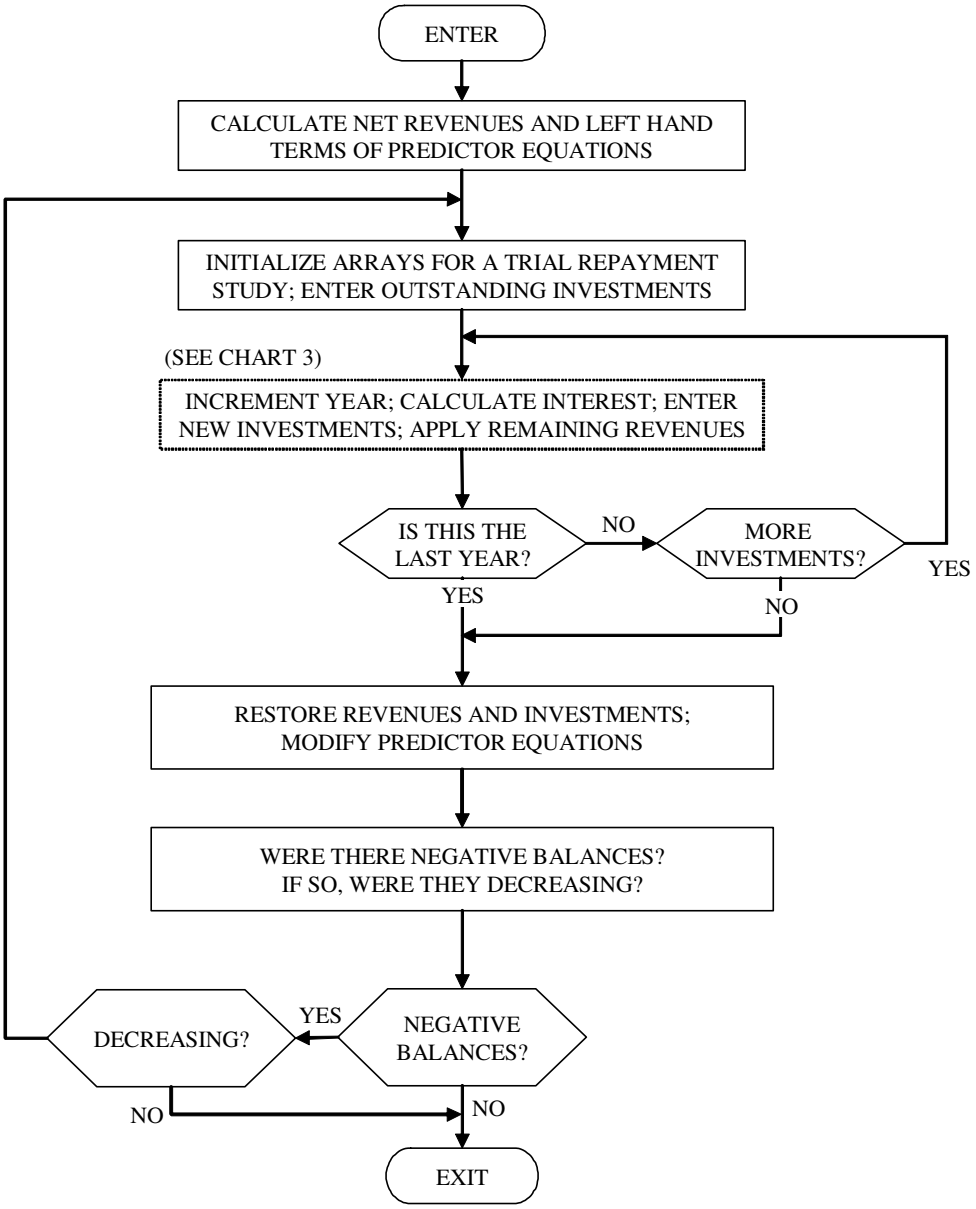
- Investment equation: The payments on each investment are less than or equal to the principle of that investment (and equal to the principle of that investment after the investment is due).

- Predictor equation: For each future year the accumulated revenues less the accumulated interest less the accumulated investments due is equal to the accumulated payments on high interest rate investments which are not due.

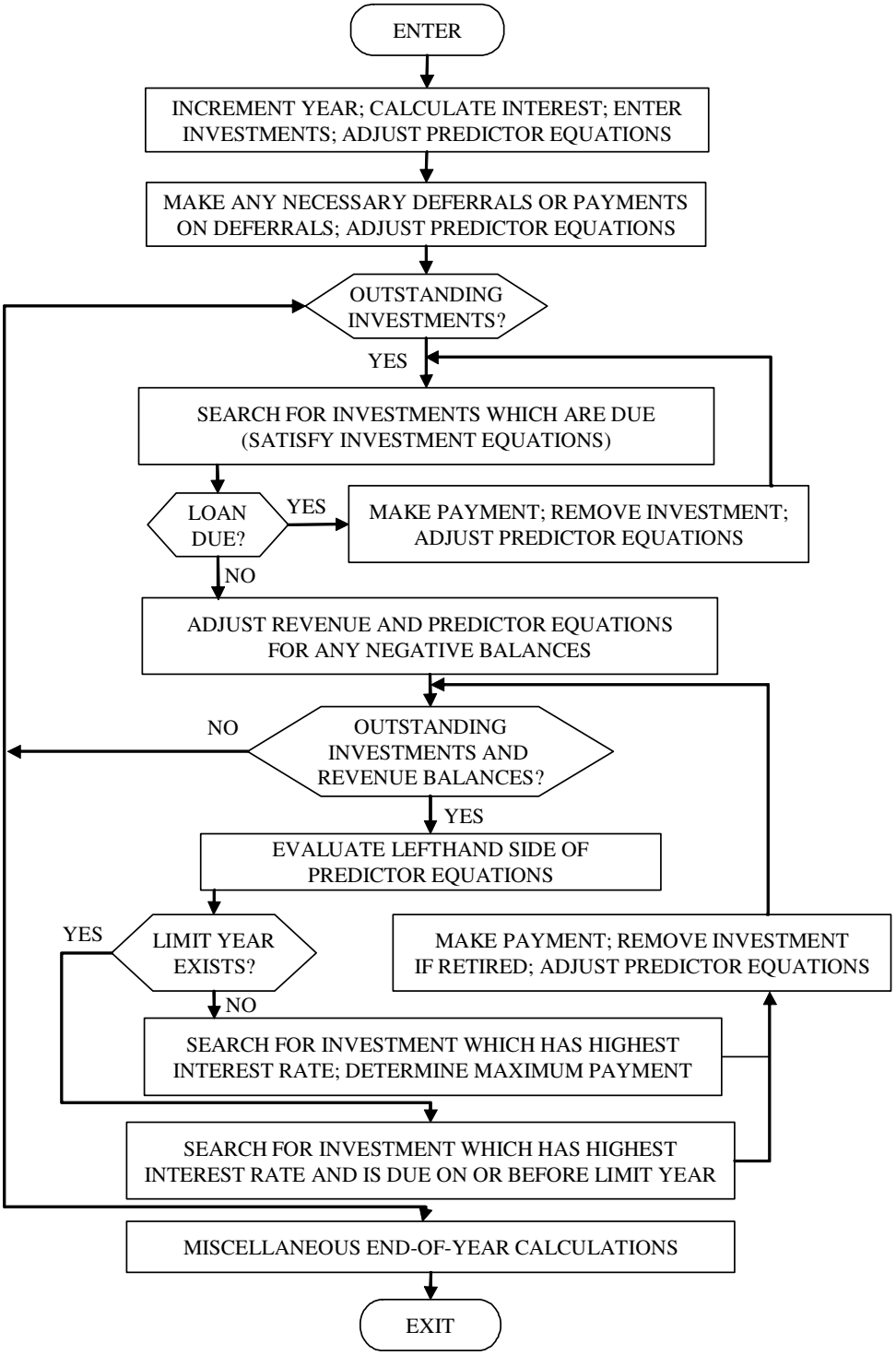
14.3 Bond Rollover Feature

Since the 2002 Wholesale Power Rate Case, BPA has incorporated a new data manipulation feature associated with the repayment program. This does not change any methodology of the model. It allows the user to assume that short-term bond(s) associated with assets with average service lives considerably longer than the bond maturity date are refinanced on the original maturity date, and recognizes replacement bonds with new maturity dates and corresponding interest rates. This feature reflects BPA's practice of rolling over a bond when it comes due if funds are not available to pay it at that time or if market conditions justify refinancing such bonds within the allowable repayment period of the associated assets. Reflecting this practice in the model allows a more realistic calculation of interest expense.

REPAYMENT PROGRAM
(TEST FOR SUFFICIENCY)



REPAYMENT PROGRAM
(APPLICATION OF REVENUES)



BONNEVILLE POWER ADMINISTRATION
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