



M E M O R A N D U M

TO: Board of Directors Middle Fork Project Finance Authority

FROM: Joseph H. Parker, CPA, Treasurer

DATE: October 3, 2018

RE: Adopted 2019 MFP Finance Authority Annual Budget

Overview

Attached herewith is the Adopted 2019 Middle Fork Project Finance Authority Budget, totaling \$43.3 million, which is comprised of a \$31.7 million operating budget and a \$11.6 million capital budget. The 5-year Budget is provided with 2018 (adjusted and projection), the Adopted 2019 Budget (amounts **bolded**), as well as the following four years (2020 - 2023) in the following attached schedules:

- Budget Schedule Years 2018 - 2023
- Reserve Schedule Years 2018 - 2023
- MFP Capital Plan as funded by the Authority 2019 - 2023

In accordance with the Board's General Financial Policies, the budget was prepared with the consultation and involvement of both PCWA and Placer County staff for presentation to the Authority Board. This budget was presented, discussed and approved at the Authority's October 3, 2018 Board meeting.

The following pages provide additional details regarding budgetary changes from 2018, discussion and analysis, and other background information.

2019 Adopted Budget - Overview

Power Sales:

The adopted 2019 Power Sales revenue reflects a \$2.3 million decrease, or 5.8% from the Adjusted 2018 Budget, which is the result of reduced 2019 energy generation associated with the Hell Hole Dam Core Raise project. The Hell Hole reservoir level by 2018 year-end is planned to be 30,000 AF less than the typical target of 150,000 AF in order to perform work

on the Hell Hole Core Raise project, which means this water will generate energy in 2018 instead of 2019.

Power sales (energy component) have been budgeted in accordance with the Authority's financial policy and consistent with prior year budgetary practices, at 80% of average 50 year hydrology and reasonable energy market price projections. Energy is sold directly to the CAISO and ancillary products including resource adequacy, renewable energy credits and carbon free credits are sold through bilateral contracts in 2019.

The 2019 **Total Operating Expenditures** are increased by \$3.6 million, or 12.8% compared with the Adjusted 2018 Budget. The following discussion provides a comparison between the Adjusted 2018 Budget and the Adopted 2019 Budget for the Operating Budget Expenditures:

Administration:

The Adopted 2019 Budget amounts are the same as the Adjusted 2018 Budget.

PCWA Power Division – Operating:

Power Operations is increased at \$1 million, or 7.5% over the Adjusted 2018 Budget. Half of the increase is associated with personnel costs for a total of \$578,000 with labor up 3% by a budgeted COLA, various benefit increases, labor shift from Capital Projects to Operations of 28% and additional overtime for scheduled outages and winter road clearing. A large part of the remaining cost increases are in general repair and maintenance, small road repairs, blasting for rock slides, snow removal and other increases to professional services totaling \$380,000.

General and Administrative is increased by \$1.1 million, or 24.2%, primarily the result of an update to the Agency's Cost Allocation Plan (CAP) that increased support services to the Power Division totaling \$970,000. The update to the CAP was the first major review and update to the Cost Allocation Plan Model in about 10 years, so it is not surprising that the level of support services has increased significantly over this period. In addition, software licensing and consulting in anticipation of the forward market program increased the budget by \$175,000.

Natural Resources Management is increased by \$1.5 million, or 84.1%, which is primarily attributed to the FERC Licensing Implementation costs. The FERC License issuance is anticipated in mid-2019, thus, increasing the budget by \$1.1 million. Required monitoring and related studies will commence with the new license issuance, such as implementing

a Sediment Management Plan, a Fish Population Monitoring Plan, and developing an Entrainment Study Plan. The environmental budget also increased \$200,000 for Weather Modification Services (cloud seeding). Additionally, the 2018 Strategic Affairs budget was shared between Power Resources Management (19%) and Natural Resources Management (81%). With a focus mainly on Natural Resources Management, the 2019 budget has shifted to 100% in Natural Resources Management resulting in a net increase of approximately \$90,000.

Power Resources Management for the energy marketing activities is expected to increase by a net \$44,000, or 2.7% compared to the Adjusted 2018 Budget. Power settlements and software licensing budget increased \$110,000. Personnel and other benefits increased the budget by \$66,000. These increases were offset by a decrease in legal and membership dues totaling \$42,000 and the \$90,000 shift of the Strategic Affairs budget to Natural Resources Management.

Routine Capital is decreased by \$93,000. The Routine Capital Budget is for the purchase of replacement or new vehicles and equipment and varies annually based on needs.

Debt Service is the same as the Adjusted 2018 Budget with semi-annual principal and interest payments of \$2.8 million.

Capital Plan – The 2019 Capital Projects appropriations and 5-Year Capital Plan reflect necessary additional investments in infrastructure, as determined by three significant factors: the age of the existing capital infrastructure, the revenue benefits that derive from being available to generate energy at all times for the California energy market, and the requirements of the new FERC license, which is anticipated to be issued in mid-2019.

The Adopted 2019 MFP Capital Plan appropriations total \$11.6 million, and are segmented into three broad categories:

1. Upgrade or Enhancement Projects,
2. Renewal, Replacement and Reliability Projects, and
3. FERC License Implementation Projects.

Over the next 5-years, the Upgrade or Enhancement Projects total \$9.3 million or 21% of the 5-year amount and are considered “one-time” expenditures (performed every 20 – 30 years) as these projects implement new technology and enhance generation flexibility for more efficient,

effective and improved generating or operating capabilities of the MFP. Because of resource constraints and the significant 75% reduction in the adopted 2015 capital budget caused by poor hydrology, upgrade or enhancement capital projects will extend beyond the 2019 5-year Capital Plan.

The second category of Renewal, Replacement and Reliability Projects total \$12.1 million or 28% of the 5-year amount. Although this annual average totals \$2.4 million this amount has been kept intentionally low to complete the upgrade projects.

The FERC License Implementation Projects are also “one-time” capital projects which total \$22.1 million or 51% of the 5-year total Capital Plan. The FERC implementation capital projects will be required with the new FERC license. Because the FERC License is currently projected to be issued in mid-2019, the FERC implementation capital projects will extend beyond the 2019 5-year Capital Plan.

For years beyond 2023, capital projects, primarily renewal and replacement projects, are currently estimated to be approximately \$3 - \$6 million per year. There will still be a few upgrade or enhancement projects to be completed as well as certain FERC license implementation projects both of which should be winding down in the subsequent 5 years.

Reserves – The Authority’s General Financial Policies adopted in April 2013 requires reserve funding which is rooted in the Authority’s JPA requirement to establish and maintain prudent reserve levels. This Policy sets forth three reserve categories: Operating, Capital, and Emergency. Reserve funding and reporting is to be part of the annual budget process. The reserve category full funding targets in priority funding order with the funding amount set by the Authority Treasurer, as follows:

Operating Reserve: Operating reserve target amount is set at \$25.75 million, approximately one year of operating expenses.

Emergency Reserve: Emergency reserve target is based on the total amount of emergency funds considered necessary under a severe outage contingency and will be evaluated with other funding/financing resources. The emergency reserve target is currently set at \$2.0 million for insurance deductible and other immediate needs.

Capital Reserve: The current capital reserve funding target is \$20 million, however, given the continual resource needs for unforeseen and unplanned capital projects this amount may need to be raised in the future to \$30 million. These recent unforeseen capital

project resource needs have been the sediment removal, core raise of Hell Hole dam, leaking surge shaft, and the LL Anderson spillway modification.

Per Policy, the Operating reserve is to be fully funded prior to funding the Emergency and Capital reserves. Based on the 2018 Projection, the Operating reserve will continue to be funded to its target level of \$25.8 million as will the Emergency reserve to its target level of \$2.0 million. Currently, the Capital Reserve target funding is \$20 million and is not funded at the current target level. The Capital Reserve functions as a “sinking-fund” for annual capital project appropriations and thus help supplement capital project funding.

Five Year Budget Schedule (2019 – 2023)

In the Budget Schedule, Power Sales revenue exhibits a decline in 2019 as a result of the reduction in energy revenue generation. In years 2020-2023 revenue projections increase as we anticipate an increase in energy prices.

Also worth noting is that the 5-year Capital Plan increased \$4.8 million from the 2018 5-year Capital Plan to \$43.5 million as the FERC License issuance is anticipated in mid-2019 and there are mandatory project implementation requirements within the first 5 years. The Adopted 2019 5-year Budget is expected to use the Capital Reserves for years 2019 – 2023. Once FERC License Implementation is near completion, the Capital Reserves will be replenished and are expected to be fully funded by the end of 2026.

MIDDLE FORK PROJECT FINANCE AUTHORITY
Budget Schedule
Years 2018 - 2023

	Adjusted 2018	Projection 2018	Adopted 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	Total 2019-2023
Revenue:								
Power Sales <i>(Note 1)</i>	\$ 39,732,000	44,000,000	37,440,000	38,667,000	40,238,000	40,996,000	41,804,000	199,145,000
Interest Income	200,000	900,000	200,000	200,000	200,000	200,000	200,000	1,000,000
Total Revenue	39,932,000	44,900,000	37,640,000	38,867,000	40,438,000	41,196,000	42,004,000	200,145,000
Expenditures and Other Uses:								
Administration:								
Operating Supplies/Services	2,000	2,000	2,000	2,100	2,200	2,300	2,400	11,000
Administration	70,000	50,000	70,000	72,100	74,100	76,100	78,100	370,400
Professional Services	50,000	25,000	50,000	51,300	52,600	54,000	55,500	263,400
Total Administration Expenditures	122,000	77,000	122,000	125,500	128,900	132,400	136,000	644,800
PCWA Power Division - Operating:								
Power Operations	13,338,986	11,600,000	14,336,817	14,910,000	15,506,000	16,126,000	16,771,000	77,649,817
General and Administrative	4,707,710	4,300,000	5,847,672	6,082,000	6,325,000	6,578,000	6,841,000	31,673,672
Natural Resources Management	1,777,042	1,400,000	3,272,311	4,417,000	3,753,000	2,917,000	2,834,000	17,193,311
Power Resources Management	1,642,425	1,500,000	1,686,253	1,754,000	1,824,000	1,897,000	1,973,000	9,134,253
Routine Capital	810,000	600,000	716,800	745,000	775,000	806,000	838,000	3,880,800
Total PCWA Power Division - Operating	22,276,163	19,400,000	25,859,853	27,908,000	28,183,000	28,324,000	29,257,000	139,531,853
Debt Service <i>(Note 2)</i>	5,690,730	5,690,730	5,690,730	5,690,730	5,690,730	5,690,730	5,690,730	28,453,650
Total Operating Expenditures	28,088,893	25,167,730	31,672,583	33,724,230	34,002,630	34,147,130	35,083,730	168,630,303
Capital Investment Program Appropriations:								
Upgrades	4,930,000	4,930,000	6,100,000	1,750,000	1,020,000	120,000	350,000	9,340,000
Renewal, Replacement and Reliability	5,000,000	4,750,000	3,475,000	2,500,000	700,000	2,000,000	3,400,000	12,075,000
FERC License Implementation Projects	2,316,000	2,316,000	1,549,000	2,741,686	8,048,590	6,070,590	3,207,420	21,617,286
Hell Hole Dam Core Raise	-	5,000,000	500,000	-	-	-	-	500,000
Total Appropriations to Capital Projects	12,246,000	16,996,000	11,624,000	6,991,686	9,768,590	8,190,590	6,957,420	43,532,286
Total Expenditures and Appropriations	40,334,893	42,163,730	43,296,583	40,715,916	43,771,220	42,337,720	42,041,150	212,162,589
Revenue over/(under) Expenditure and Appropriations	(402,893)	2,736,270	(5,656,583)	(1,848,916)	(3,333,220)	(1,141,720)	(37,150)	(12,017,589)
(To)/From Reserves	402,893	(2,736,270)	5,656,583	1,848,916	3,333,220	1,141,720	37,150	12,017,589
Net Revenue	-	-	-	-	-	-	-	-
Distributions and Debt Payment Requirement	-	-	-	-	-	-	-	-
Net	\$ -	-	-	-	-	-	-	-
Reserves - Projected Year-End Balances:								
Operating Reserve - Target \$25.75M	25,750,000	25,750,000	25,750,000	25,750,000	25,750,000	25,750,000	25,750,000	
Emergency Reserve - Target \$2.0M	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	
Capital Reserve - LT Target \$20.0M	16,483,527	19,219,797	13,563,214	11,714,298	8,381,078	7,239,358	7,202,208	
Total	\$ 44,233,527	46,969,797	41,313,214	39,464,298	36,131,078	34,989,358	34,952,208	

General Note: The amount encumbered for consulting and construction contracts that span more than one fiscal year totals approximately \$16.7 million.

Note 1: Power Sales are subject to significant fluctuation in both energy prices and hydrology. Revenue is projected based on 80% of the average hydrologic year, relying on operating reserves to cover short periods of drought or mechanical outages. Power sales are based on 100% capacity payment and 80% energy payment. Years 2019-2023 are based on projections determined by the Power Resources Management team.

Note 2: Total debt at December 31, 2018 is \$74 million.

MIDDLE FORK PROJECT FINANCE AUTHORITY

Reserve Schedule

Years 2018 - 2023

	<u>Adjusted 2018</u>	<u>Projection 2018</u>	<u>Adopted 2019</u>	<u>Projected 2020</u>	<u>Projected 2021</u>	<u>Projected 2022</u>	<u>Projected 2023</u>
Operating Reserve [First Priority - (Note 1)]:							
Reserve, Beginning of Year	\$ 25,750,000	25,750,000	25,750,000	25,750,000	25,750,000	25,750,000	25,750,000
(To)/From Operating Reserve	-	-	-	-	-	-	-
Balance End of Year	<u>\$ 25,750,000</u>	<u>25,750,000</u>	<u>25,750,000</u>	<u>25,750,000</u>	<u>25,750,000</u>	<u>25,750,000</u>	<u>25,750,000</u>
Emergency Reserve [Second Priority - (Note 2)]:							
Reserve, Beginning of Year	\$ 2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
(To)/From Emergency Reserve	-	-	-	-	-	-	-
Balance End of Year	<u>\$ 2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>
Capital Reserve [Third Priority - (Note 3-sinking fund implemented in 2014)]:							
Budget Amounts:							
Beginning Balance	\$ 16,886,420	16,483,527	19,219,797	13,563,214	11,714,298	8,381,078	7,239,358
Net Operating Revenue	11,843,107	19,732,270	5,967,417	5,142,770	6,435,370	7,048,870	6,920,270
Use/Appropriation to Projects	(12,246,000)	(16,996,000)	(11,624,000)	(6,991,686)	(9,768,590)	(8,190,590)	(6,957,420)
Net (To)/From Capital Reserve	402,893	(2,736,270)	5,656,583	1,848,916	3,333,220	1,141,720	37,150
Balance End of Year	<u>\$ 16,483,527</u>	<u>19,219,797</u>	<u>13,563,214</u>	<u>11,714,298</u>	<u>8,381,078</u>	<u>7,239,358</u>	<u>7,202,208</u>
Amount Needed to Meet Target, if any	<u>\$ (3,516,473)</u>	<u>(780,203)</u>	<u>(6,436,786)</u>	<u>(8,285,702)</u>	<u>(11,618,922)</u>	<u>(12,760,642)</u>	<u>(12,797,792)</u>
Total Reserve Balance	<u>\$ 44,233,527</u>	<u>46,969,797</u>	<u>41,313,214</u>	<u>39,464,298</u>	<u>36,131,078</u>	<u>34,989,358</u>	<u>34,952,208</u>

Note 1: The **Operating Reserve** is currently set at a fixed amount of \$25.8 million.

Note 2: The current **Emergency Reserve** strategy is \$2 million to provide immediate and designated funds for deductible(s) and seed monies to commence any significant unforeseen capital expenditures, thus enabling PCWA to respond immediately to the emergency condition. PCWA will annually assess the level of Emergency Reserve, balancing the trade off between insurance emergency reserve funds and alternative funding, and propose recommended changes as needed.

Note 3: The **Capital Reserve Funding Target** is currently set at a fixed amount of \$20 million

PLACER COUNTY WATER AGENCY
MFP Capital Plan
As Funded by the Middle Fork Project Finance Authority
2019-2023

Project No.	Project Description	Project Lead	Project Type	Total Estimated Project Cost (Note 2)	Prior Funding	Adopted 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023	TOTAL 2019-2023
MINOR PROJECTS - TOTAL						\$ 375,000	-	-	-	-	375,000
MAJOR PROJECTS - AUTHORIZED: (Note 1)											
17019W	Enterprise Resource Planning System	ADMIN	Computer Systems	1,810,000	977,691	500,000	500,000	-	-	-	1,000,000
17004P	French Meadows Forest Management	PWR	Environmental	2,200,000	375,000	750,000	650,000	250,000	100,000	50,000	1,800,000
14007P	French Meadows Powerhouse Reliability Upgrades	PWR	Plant	Ongoing	3,800,000	1,450,000	400,000	170,000	250,000	200,000	2,470,000
14003P	Hell Hole Powerhouse Reliability Upgrades	PWR	Plant	Ongoing	750,000	-	700,000	-	-	-	700,000
12003P	Hillside Slope Stability - Middle Fork Project	PWR	Penstock	2,000,000	1,511,245	300,000	100,000	-	-	-	400,000
14009P	Middle Fork Powerhouse Reliability Upgrades	PWR	Plant	Ongoing	4,100,000	2,700,000	1,050,000	1,100,000	-	100,000	4,950,000
14010P	Oxbow Powerhouse Reliability Upgrades	PWR	Plant	Ongoing	1,150,000	750,000	450,000	100,000	200,000	650,000	2,150,000
12029A	Project Wide SCADA Reliability Upgrades	PWR	SCADA	900,000	670,000	100,000	-	-	-	-	100,000
14012P	Ralston Powerhouse Reliability Upgrades	PWR	Plant	Ongoing	2,900,000	2,650,000	400,000	100,000	70,000	250,000	3,470,000
14013P	FERC License Implementation - Project Infrastructure	PWR	Plant	28,464,000	12,350,000	1,105,000	2,069,000	5,560,000	5,150,000	2,300,000	16,184,000
14014P	FERC License Implementation - Project Recreation Facilities	ENG	Environmental	16,686,000	2,225,000	944,000	672,686	2,488,590	920,590	907,420	5,933,286
17013P	Sediment Removal	PWR	Plant	Ongoing	6,000,000	-	-	-	1,500,000	2,500,000	4,000,000
SUBTOTAL - MAJOR AUTHORIZED PROJECTS						11,249,000	6,991,686	9,768,590	8,190,590	6,957,420	43,157,286
TOTAL CAPITAL PROJECTS						\$ 11,624,000	6,991,686	9,768,590	8,190,590	6,957,420	43,532,286

Note 1: Major Projects are projects that exceed \$1 million in total estimated project cost. These projects may be comprised of a variety of sub-projects for which appropriations will be allocated, administered and accounted for as separate "Projects" at the PCWA project management level, as PCWA is the lead entity for MFP projects.

Note 2: Total Estimated Project Cost may include prior funding and completed sub-projects. These costs for the powerhouse reliability projects are defined as "Ongoing" because underlying sub-projects will be added, completed and removed over time. Stand alone Project Cost estimates are continually updated as the scope of the project may evolve over time.

PLACER COUNTY WATER AGENCY
MFP Capital Plan
As Funded by the Middle Fork Project Finance Authority
2019-2023

Minor Projects - Total

Minor Projects - Total is comprised of the following sub-projects:

1. Penstock Interior Coating Inspection
2. Project Wide Security Surveillance Improvements



French Meadows Powerhouse Dielectric Fence Installation

Funding Source	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	\$ 375,000	-	-	-	-	375,000

Minor Projects are defined as projects with a total estimated project cost equal to or less than \$1 million dollars and are included in the MFPFA Capital Plan as one total amount. This amount is comprised of a variety of sub-projects that will be allocated, administered and accounted for as "Projects" through PCWA's budget and accounting system, as PCWA is the lead entity for MFP projects.

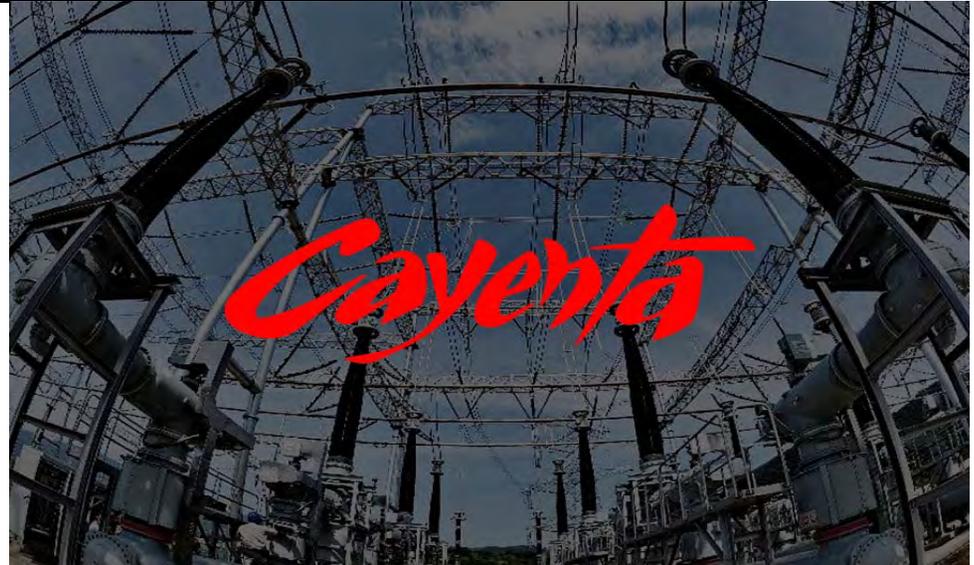
PLACER COUNTY WATER AGENCY
MFP Capital Plan
As Funded by the Middle Fork Project Finance Authority
2019-2023

Enterprise Resource Planning System

Project Number: 17019W
 Project Category: Major-Authorized
 Project Lead: Administration
 Project Type: Computer Systems

Power System will pay a share of the costs for the replacement of the Agency's existing Enterprise Resource Planning (ERP) software system. The integrated software includes financials, work orders, inventory, and HR.

1. Implementation
2. Testing
3. Software Licensing



Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	\$ 1,810,000	500,000	500,000	-	-	-	1,000,000

This project is a Major Project, or project category, with a total estimated project cost at more than \$1 million, as defined by MFPFA policy as Potential, Planned or Authorized. Major Projects may be comprised of a variety of sub-projects that will be allocated, administered and accounted for as separate "Projects" through PCWA's accounting system, as PCWA is the lead entity for MFP projects.

PLACER COUNTY WATER AGENCY
MFP Capital Plan
As Funded by the Middle Fork Project Finance Authority
2019-2023

French Meadows Forest Management

Project Number: 17004P
 Project Category: Major-Authorized
 Project Lead: Power
 Project Type: Environmental

The Agency is partnering with the Tahoe National Forest, The Nature Conservancy, American River Conservancy, and the University of California, Sierra Nevada Research Institute on the French Meadows Forest Resilience Project. The aim of the French Meadows Forest Resilience Project is to increase the pace and scale of forest restoration in a critical municipal watershed, using an approach of ecologically-based forest management.



French Meadows Reservoir

Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	\$ 2,200,000	750,000	650,000	250,000	100,000	50,000	1,800,000

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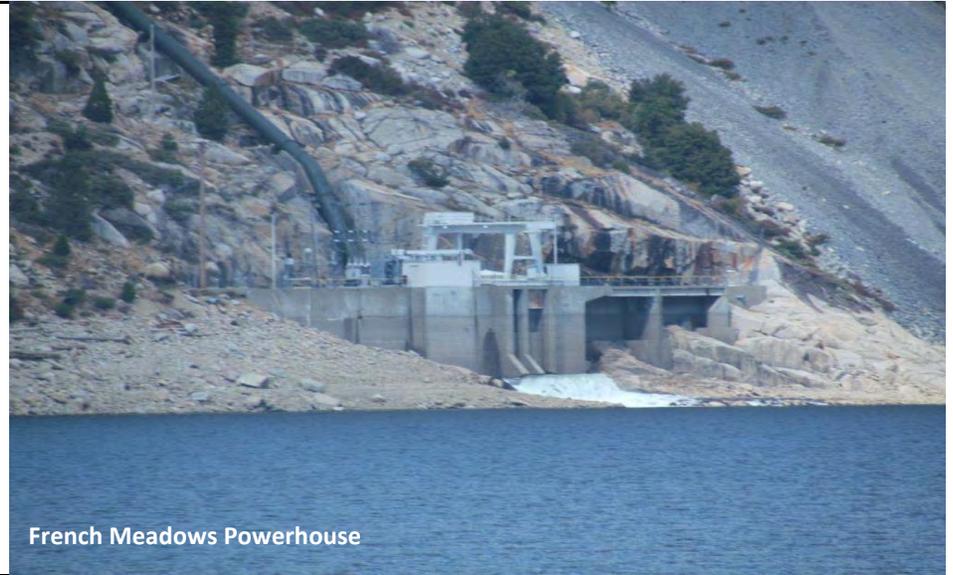
PLACER COUNTY WATER AGENCY
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2019-2023

French Meadows Powerhouse Reliability Upgrades

Project Number: 14007P
 Project Category: Major-Authorized
 Project Lead: Power
 Project Type: Plant

Powerhouse reliability upgrades encompass projects that will sustain or increase generator availability (the percentage of time a generator is available to be synchronized to the grid and produce electricity) and projects that will improve employee safety.

1. Battery Room Addition
2. Cooling and Sump Pumps Control Upgrade
3. Generator Excitation System Replacement
4. Generator Protection Upgrade
5. Penstock Coupling Investigation
6. Powerhouse HVAC Upgrade



French Meadows Powerhouse

Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	Ongoing	\$ 1,450,000	400,000	170,000	250,000	200,000	2,470,000

This project is a Major Project, or project category, with a total estimated project cost at more than \$1 million, as defined by MFPFA policy as Potential, Planned or Authorized. Major Projects may be comprised of a variety of sub-projects that will be allocated, administered and accounted for as separate "Projects" through PCWA's accounting system, as PCWA is the lead entity for MFP projects.

PLACER COUNTY WATER AGENCY
MFP Capital Plan
As Funded by the Middle Fork Project Finance Authority
2019-2023

Hillside Slope Stability - Middle Fork Project

Project Number: 12003P
 Project Category: Major-Authorized
 Project Lead: Power
 Project Type: Penstock

This project covers geotechnical engineering and slope stability work to protect Project infrastructure. This project includes:

1. Monitoring and analysis of rock masses at the Ralston Powerhouse penstock and above the Hell Hole Dam spillway.
2. Middle Fork Penstock Foundation Monitoring Project, which is providing electronic data about potential movement of penstock saddle foundations that are founded on old slide material rather than weathered bedrock.



Rockslide at Interbay Dam Road

Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	\$ 2,000,000	300,000	100,000	-	-	-	400,000

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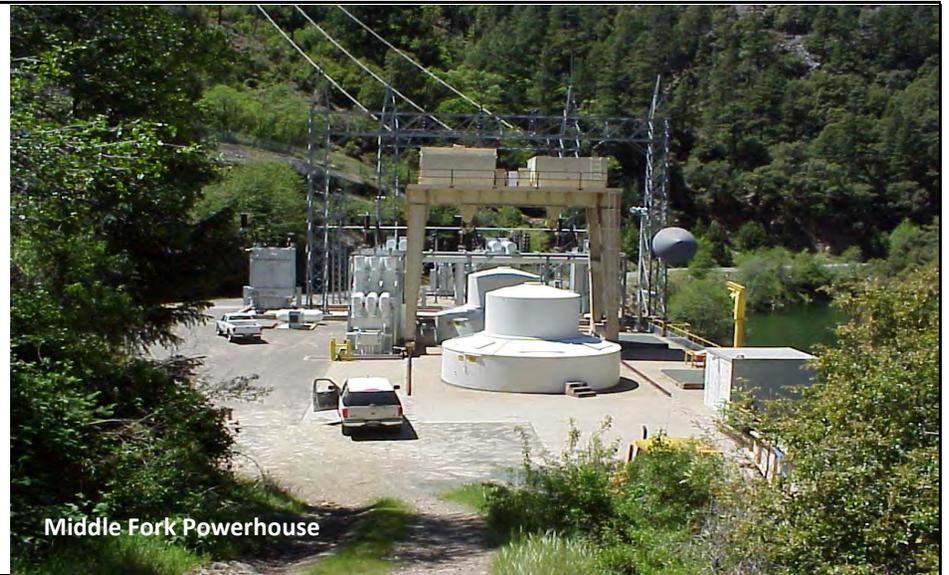
PLACER COUNTY WATER AGENCY
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2019-2023

Middle Fork Powerhouse Reliability Upgrades

Project Number: 14009P
 Project Category: Major-Authorized
 Project Lead: Power
 Project Type: Plant

Powerhouse reliability upgrades encompass projects that will sustain or increase generator availability (the percentage of time a generator is available to be synchronized to the grid and produce electricity) and projects that will improve employee safety.

1. High Voltage Switchyard Upgrades
2. Penstock Coupling Investigation
3. Powerhouse HVAC Upgrade



Middle Fork Powerhouse

Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	Ongoing	\$ 2,700,000	1,050,000	1,100,000	-	100,000	4,950,000

This project is a Major Project, or project category, with a total estimated project cost at more than \$1 million, as defined by MFPFA policy as Potential, Planned or Authorized. Major Projects may be comprised of a variety of sub-projects that will be allocated, administered and accounted for as separate "Projects" through PCWA's accounting system, as PCWA is the lead entity for MFP projects.

PLACER COUNTY WATER AGENCY
MFP Capital Plan
As Funded by the Middle Fork Project Finance Authority
2019-2023

Oxbow Powerhouse Reliability Upgrades

Project Number: 14010P
 Project Category: Major-Authorized
 Project Lead: Power
 Project Type: Plant

Powerhouse reliability upgrades encompass projects that will sustain or increase generator availability (the percentage of time a generator is available to be synchronized to the grid and produce electricity) and projects that will improve employee safety.

1. Turbine Governor Upgrade
2. Generator Excitation System Replacement
3. Powerhouse HVAC Upgrade



Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	Ongoing	\$ 750,000	450,000	100,000	200,000	650,000	2,150,000

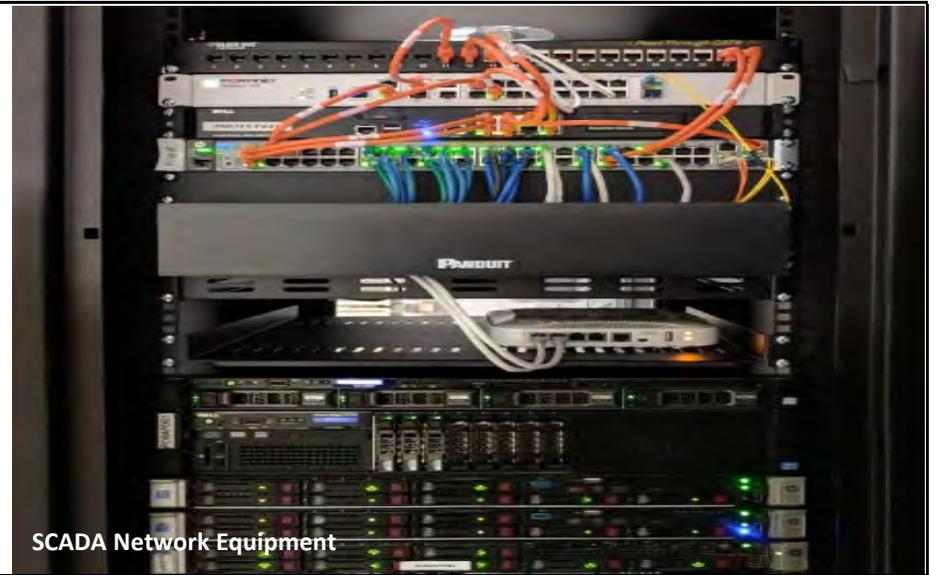
This project is a Major Project, or project category, with a total estimated project cost at more than \$1 million, as defined by MFPPA policy as Potential, Planned or Authorized. Major Projects may be comprised of a variety of sub-projects that will be allocated, administered and accounted for as separate "Projects" through PCWA's accounting system, as PCWA is the lead entity for MFP projects.

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Project Wide SCADA Reliability Upgrades

Project Number: 12029A
 Project Category: Major-Authorized
 Project Lead: Power
 Project Type: SCADA

This project encompasses equipment upgrades and replacements for the MFP Supervisory Control And Data Acquisition (SCADA) network. These upgrades coincide with the MFP Communications Upgrade Project to insure SCADA network reliability and network cyber security.



Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	\$ 900,000	100,000	-	-	-	-	100,000

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Ralston Powerhouse Reliability Upgrades

Project Number: 14012P
 Project Category: Major-Authorized
 Project Lead: Power
 Project Type: Plant

Powerhouse reliability upgrades encompass projects that will sustain or increase generator availability (the percentage of time a generator is available to be synchronized to the grid and produce electricity) and projects that will improve employee safety.

1. High Voltage Switchyard Upgrades
2. Penstock Coupling Investigation
3. Tunnel Intake Trash Rack Cleaner Upgrade
4. Upper Penstock Access Improvements



Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	Ongoing	\$ 2,650,000	400,000	100,000	70,000	250,000	3,470,000

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FERC License Implementation - Project Infrastructure

Project Number: 14013P
 Project Category: Major-Authorized
 Project Lead: Power
 Project Type: Plant

These capital projects consist of infrastructure work required under the new FERC license. The work includes:

1. Dam Low Level Outlet Upgrades
2. Hell Hole Dam Core Raise
3. Middle Fork Project Cooperative Road Management



Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	\$ 28,464,000	1,105,000	2,069,000	5,560,000	5,150,000	2,300,000	16,184,000

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FERC License Implementation - Project Recreation Facilities

Project Number: 14014P
 Project Category: Major-Authorized
 Project Lead: Engineering
 Project Type: Environmental

This project consists of work to rehabilitate recreational facilities that will be required by the new FERC license. The work includes:

1. Afterbay Picnic Area, Cartop Boat Ramp, MF Stream Gage Trail Improvements, and Indian Bar Access Area
2. French Meadows Boat Ramp Extension and Picnic Area
3. French Meadows RV Dump Station and Campground
4. French Meadows South Shore Water Supply
5. Hell Hole Boat Ramp Extension and Parking, General Parking, and Potable Water
6. Hell Hole Recreation Work Station and Storage Facility



Funding Source	Total Estimated Project Cost	2019 Adopted	2020 Projected	2021 Projected	2022 Projected	2023 Projected	Total
Middle Fork Project Finance Authority	\$ 16,686,000	944,000	672,686	2,488,590	920,590	907,420	5,933,286

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