Last Revised: September 4, 20

Milestone	Action	Target Completion	Status	Completion
I. Reporting	and Implementation			
4.3				
(I).1.a Provid	e a report of implementation to the Commissioner and Deputy Commissioners.		Produced the control of the description of the control of the cont	
	Develop a schedule with reporting milestones within 60 days of memo.		Reclamation provided a coordinated action plan, complete with milestones, tasks and target completion dates for each directive on August 23. All information can be found here https://www.usbr.gov/mp/hydro.html.	8/2
(I).1.b Provid	le an implementation status report to the Commissioner and Deputy Commissioners.			
		10/00/0010		
	Provide an implementation status report of the action plan within 120 days of memo.	10/23/2019		
	Provide a status report every 6 months.	4/20/2020 10/16/2020		
	Provide a status report every 6 months. Provide a status report every 6 months.	4/15/2021		
	Provide a status report every 6 months.	10/12/2021		
	Provide a status report every 6 months.	4/8/2022		
II. Impleme	ntation - Cost Stability - Predictability and Transparency			
(II).1.a Work	with customers, WAPA and project proponent for Sites/North-of-Delta Off-Stream Storage (NODOS)	Project on hydropower	purpose analysis.	
	Discuss analysis of benefits, costs, and financial impacts associated with the draft feasibility report's inclusion of a hydropower purpose to the proposed Sites/NODOS project with power customers at Power Customer Coordination Committee (CCC) meeting.	10/10/2019		
	Draft Lt-gen hydropower purpose analysis for Sites/NODOS project discussion with power preference customers.	11/1/2019		
	Submit administrative Final Feasibility Report to Commissioner's Office.	10/1/2019		
	Submit administrative Final Environmental Impact Statement to Commissioner's Office.	4/1/2020		
	Participate in regular calls and discussions with Joint Power Authority to develop operations plan proposal.	Ongoing		
	Work with WAPA, customers and project proponents to finalize operations plan after determination of feasibility.	1/31/2021		
(II).1.b Comn	nunicate any modifications to the benefits analysis in the NODOS Feasibility Report to power custom	ers and appropriate sta	keholders.	
	Draft Lt-gen benefits analysis for Sites/NODOS project for discussion with power preference	-		
	customers.	11/1/2019		
	Submit administrative Final Feasibility Report to Commissioner's Office.	10/1/2019		
	Submit administrative Final Environmental Impact Statement to Commissioner's Office.	4/1/2020		
	Participate in regular calls and discussions with Joint Power Authority to develop operations plan proposal.	Ongoing		
	Work with WAPA, customers and project proponents to finalize operations plan after determination of feasibility.	1/31/2021		

	Provide Shasta Dam Paice undates at WARA CCC meeting to ensure honefits, sects, and financial			
	Provide Shasta Dam Raise updates at WAPA CCC meeting to ensure benefits, costs, and financial impacts associated with the draft Feasibility Report's inclusion of a hydropower purpose to the			
	proposed project are analyzed, evaluated, and considered as the project moved forward.	8/22/2019		
	proposed project are dridryzed, evaluated, and considered as the project moved forward.	0/22/2013		-
	Lt-gen corrections for power benefits due/to-be-completed.	9/20/2019		
	Contract to be awarded to provide additional PLEXOS runs to improve hydropower benefits			
	analysis.	11/1/2020		
	Complete revised benefits analysis.	12/31/2019	Benefits analysis will be provided at the power customer meeting following completion.	
(II).1.d V	Nork with preference power customers and WAPA as appropriate on other feasibility studies.			
	Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings to ensure			
	the benefits, costs, and financial impacts associated with the inclusion of a hydropower purpose for			
	proposed projects are analyzed, evaluated, and considered as projects move forward.	Ongoing		
(II).1.d.1.	 - If feasibility is appropriately determined and Congressional authorization provided for a project - work w	vith power customers,	 WAPA, project proponents, water contractors, and stakeholders to develop detailed operations plan.	•
		-		
	Modify appropriate internal directives to include outreach for stakeholders and power marketing			
	agencies. Determine if additional outreach is required before feasibility is determined and add to		Following release of Appraisal Study D&S (CMP 09-01) and Planning Policy (CMP P09), Reclamation	
	appropriate directives and standards (if not already included).	7/31/2020	will begin updates to CMP 09-02 in 2019.	
	Reclamation's Planning Office (MP-700) will begin coordination and development of detailed			
	operations plan if and when feasibility is appropriately determined and Congressional authorization			
	is provided for a project.	Ongoing	Work will occur if/when feasibility is determined for any proposed project.	
(II). 1.e I	 Develop a Standard Operating Procedure (SOP) to document methodology and procedures for constructio	n cost recovery.		
. ,		•	Reclamation met with the CVP FAC and determined the SOP will document what Reclamation will	
	Meet with CVP Financial Affairs Committee (FAC) to determine items for SOP.	7/19/2019	do to ensure repayment is accomplished by 2030.	
	Develop draft SOP within 60 days of meeting with FAC.	9/17/2019		1
	Share draft SOP at next FAC meeting.	9/20/2019		
	Share draft SOP at WAPA CCC Customer Meeting.	10/10/2019		
(II).1.f D		ts.		
			Reclamation provided a presentation on and consulted with water and power stakeholders on	
	Develop document describing handling of aid-to-irrigation for WIIN Act construction prepayment		TRMR #122, which was then finalized August 2019. The document can be found here:	
	and new construction projects funded under WIIN authorities within 60 days of memo.	8/28/2019	https://www.usbr.gov/recman/temporary_releases/pectrmr-122.pdf	
(II).1.g S	hare the SOP documenting the methodology for treatment of non-permanent revenue.			
	Share draft SOP with customers at customer CCC meeting.	10/10/2019		
	Discuss two finalized SOPs with power customers at CCC meeting.	10/10/2019		
	Finalize SOP, which identifies (a) what this revenue represents (definition of this water), (b) the			
	justification for the accounding process, and (c) description of the rate-setting schedules.	11/1/2019		
	Review the guidelines annually.	11/1/2020		
(II).1.h V	 Nork with WAPA to maintain 10-year forecast of capital improvements. Review with customers at Technic	cal Committee Meeting	is.	
	Complete 10-year forecast of capital improvements for CVP power infrastructure.	8/6/2019		
	Reclamation provided a presentation and an opportunity to review the 10-year forecast with CVP	5/0/2013		
		8/6/2010	This was provided at the MMPPC and Technical Committee Meeting and finalized August 2019.	
	customers at Technical Committee Meetings.	(1/11//11/		

necialitation will seek customer and stakeholder	input on appropriate variance percentage			
threshold.		10/31/2019	Coordinate variance percentage determination with WAPA, power customers and stakeholders.	
	eshold between budgeted and actual expenditures			
for transparency of multipurpose O&M and cons		1/13/2020		
Document and share variance percentage comm	nitment with power customers.	6/1/2020	This information will be shared at CCC meeting.	
(II).1.j Implement benchmarking of CVP hydropower data and	share annually.			
Prepare preliminary report outling results of cos	t and operational data for CVP generators.	10/18/2019	Reclamation continues to develop this report and will share when completed.	
Share results with Reclamation management and	d power customers.	10/31/2019	Results will be shared at customer meeting following completion.	
Prepare and share report with Reclamation man	agement and power customers annually.	10/31/2020	Results will be shared at CCC meetings annually.	
III. Implementation - Lost Production Opportunitie	es			
(III).1.a Use best available science with plant bypass operation	ns.			
, , , , , , , , , , , , , , , , , , , ,			Reclamation will continue to coordinate with the groups to use data for decision-making and to	
Coordinate with the American River and Sacram	ento River groups when evaluating power plant		incorporate real-time monitoring into decisions. Updates from these meetings are provided during	
bypass operations for species mitigation.		Ongoing	customer meetings.	
			Reclamation will continue to coordinate with the groups when appropriate to ensure use of best	
Coordinate with American River and Sacramento	River groups to ensure use of best available		available science with plant bypass operations. Updates from these meetings are provided during	
science with plant bypass operations.		Ongoing	customer meetings.	
(III).1.b Coordinate with WAPA fisheries biologist in adaptive	management committees			
(iii):1:iii Coordinate with WALA fisheries biologist iii adaptive	management committees.			
Invite WAPA biologist to tour the Central Valley	Office control center and provide an overview of			
CVO operations.		4/26/2019		
	e management committess (American River Group I			
Invite WAPA fisheries biologist to attend adaptiv	· · · · · · · · · · · · · · · · · · ·			
and Sacramento River Temperature Task Group)	to help ensure requests for power bypass	6/20/2040	A self-free effect free the second self-resident days at MARAL shows the	
	to help ensure requests for power bypass	6/20/2019	Any information from those meetings is updated through WAPA's channels.	
and Sacramento River Temperature Task Group) operations are supported by best available scien	to help ensure requests for power bypass ce.	6/20/2019	Any information from those meetings is updated through WAPA's channels.	
and Sacramento River Temperature Task Group) operations are supported by best available scien (III).1.c Review Shasta Water Control Manual (WCM) potentia	to help ensure requests for power bypass ce.	6/20/2019	Any information from those meetings is updated through WAPA's channels.	
and Sacramento River Temperature Task Group) operations are supported by best available scien (III).1.c Review Shasta Water Control Manual (WCM) potentia	to help ensure requests for power bypass ce.		Any information from those meetings is updated through WAPA's channels. This action will occur when the U.S. Army Corps of Engineers initiaties revisions to the WCM.	
and Sacramento River Temperature Task Group) operations are supported by best available scien (III).1.c Review Shasta Water Control Manual (WCM) potential Reclamation will evaluate the forecast-informed Engineers opens this process for comment.	to help ensure requests for power bypass ce.			
and Sacramento River Temperature Task Group) operations are supported by best available scien (III).1.c Review Shasta Water Control Manual (WCM) potential Reclamation will evaluate the forecast-informed Engineers opens this process for comment.	to help ensure requests for power bypass ce.	Ongoing	This action will occur when the U.S. Army Corps of Engineers initiaties revisions to the WCM.	
and Sacramento River Temperature Task Group) operations are supported by best available scien (III).1.c Review Shasta Water Control Manual (WCM) potential Reclamation will evaluate the forecast-informed Engineers opens this process for comment.	to help ensure requests for power bypass ce. II. reservoir operations when the U.S. Army Corps of	Ongoing		
and Sacramento River Temperature Task Group) operations are supported by best available scien (III).1.c Review Shasta Water Control Manual (WCM) potential Reclamation will evaluate the forecast-informed Engineers opens this process for comment. (III).1.d Provide updates on flood control operations. Include flood operations updates in the weekly seep the second s	to help ensure requests for power bypass ce. II. reservoir operations when the U.S. Army Corps of status reports to power customers.	Ongoing 8/30/2019	This action will occur when the U.S. Army Corps of Engineers initiaties revisions to the WCM. Flood operations updates are now included in the weekly status report to power	
and Sacramento River Temperature Task Group) operations are supported by best available scien (III).1.c Review Shasta Water Control Manual (WCM) potential Reclamation will evaluate the forecast-informed Engineers opens this process for comment. (III).1.d Provide updates on flood control operations.	to help ensure requests for power bypass ce. II. reservoir operations when the U.S. Army Corps of status reports to power customers.	Ongoing	This action will occur when the U.S. Army Corps of Engineers initiaties revisions to the WCM. Flood operations updates are now included in the weekly status report to power	
and Sacramento River Temperature Task Group) operations are supported by best available scien (III).1.c Review Shasta Water Control Manual (WCM) potential Reclamation will evaluate the forecast-informed Engineers opens this process for comment. (III).1.d Provide updates on flood control operations. Include flood operations updates in the weekly selection of the selecti	to help ensure requests for power bypass ce. II. reservoir operations when the U.S. Army Corps of status reports to power customers. e" at all Power Customer CCC meetings. Maintenance and Major Project Planning Committee (M	Ongoing 8/30/2019 Ongoing	This action will occur when the U.S. Army Corps of Engineers initiaties revisions to the WCM. Flood operations updates are now included in the weekly status report to power	
and Sacramento River Temperature Task Group) operations are supported by best available scient (III).1.c Review Shasta Water Control Manual (WCM) potential Reclamation will evaluate the forecast-informed Engineers opens this process for comment. (III).1.d Provide updates on flood control operations. Include flood operations updates in the weekly so Discuss as a part of Reclamation's "Power Update (III).1.e CVP Hydropower Outage Scheduling - Framework at North Inform customers about the concepts adopted in	to help ensure requests for power bypass ce. II. reservoir operations when the U.S. Army Corps of status reports to power customers. e" at all Power Customer CCC meetings. Maintenance and Major Project Planning Committee (Men the CVP Hydropower Outage Scheduling	Ongoing 8/30/2019 Ongoing	This action will occur when the U.S. Army Corps of Engineers initiaties revisions to the WCM. Flood operations updates are now included in the weekly status report to power customers when in flood operations.	
and Sacramento River Temperature Task Group) operations are supported by best available scient (III).1.c Review Shasta Water Control Manual (WCM) potential Reclamation will evaluate the forecast-informed Engineers opens this process for comment. (III).1.d Provide updates on flood control operations. Include flood operations updates in the weekly so Discuss as a part of Reclamation's "Power Update (III).1.e CVP Hydropower Outage Scheduling - Framework at North Inform customers about the concepts adopted in framework document by posting to Reclamation	to help ensure requests for power bypass ce. II. reservoir operations when the U.S. Army Corps of status reports to power customers. e" at all Power Customer CCC meetings. Maintenance and Major Project Planning Committee (Men the CVP Hydropower Outage Scheduling	Ongoing 8/30/2019 Ongoing	This action will occur when the U.S. Army Corps of Engineers initiaties revisions to the WCM. Flood operations updates are now included in the weekly status report to power	

(III).1.f Cod	ordinate O&M, outages at MMPPC			
(,	Include an ongoing agenda item for the MMPPC meeting to discuss and coordinate items related to		Reclamation added this item to its agenda and will continue to discuss and coordinate at MMPPC	
	O&M and planned and ongoing outages.	Ongoing	meetings.	
	Develop a scheduling guide that Reclamation Area Offices will utilize to help schedule outages.	4/1/2020	Reclamation continues to develop this guide and provide updates at MMPPC meetings.	
(III).2.a Re	view and revise Hydropower Program Policy (FAC P04).			
	Revise existing Hydropower Program Policy to develop appropriate language that Power Resources			
	Office will maintain, monitor, and renew procurement options to streamline regional hydropower			
	program services in a way that is consistent with existing law and regulations.	7/3/2019		
	Brief DC leadership on Policy overview briefing.	9/20/2019		
	Publish revised Hydropower Program Policy.	12/1/2019		
(III).2.b Tra	ack and evaluate the performance of implemented procurement streamlining solutions.			
	Develop specific benchmarks to measure cost savings by using new procurement tools.	11/1/2019	Reclamation will share the benchmarks on the MP Power Website and in customer meetings.	
IV. Impler	mentation - Value of Resource			
	ontinued support for WAPA - Energy imbalance market (EIM)		Reclamation provided the data for the gap analysis to BANC. Reclamation continues work on	
		4/2019 - Ongoing	Reclamation provided the data for the gap analysis to BANC. Reclamation continues work on planning SCADA modifications for entering into the EIM. Reclamation received approval from	4/201
	entinued support for WAPA - Energy imbalance market (EIM)	4/2019 - Ongoing 4/2019 - Ongoing		
	Continue to meet with customers to evaluate benefit and costs for implementation.		planning SCADA modifications for entering into the EIM. Reclamation received approval from	
	Continue to meet with customers to evaluate benefit and costs for implementation.	4/2019 - Ongoing		
	Continue to meet with customers to evaluate benefit and costs for implementation. Continue coordination meetings with Reclamation, WAPA and BANC.	4/2019 - Ongoing	Public comment period on EIM ended on 8/16/19. On Aug 27, 2019, WAPA made a determination	
(IV).1.a Co	Continued support for WAPA - Energy imbalance market (EIM) Continue to meet with customers to evaluate benefit and costs for implementation. Continue coordination meetings with Reclamation, WAPA and BANC. Continue to provide support for following WAPA determination on implementing EIM.	4/2019 - Ongoing Ongoing	Public comment period on EIM ended on 8/16/19. On Aug 27, 2019, WAPA made a determination	
(IV).1.a Co	Continue to meet with customers to evaluate benefit and costs for implementation. Continue coordination meetings with Reclamation, WAPA and BANC.	4/2019 - Ongoing Ongoing	Public comment period on EIM ended on 8/16/19. On Aug 27, 2019, WAPA made a determination	
(IV).1.a Co	Continue to meet with customers to evaluate benefit and costs for implementation. Continue coordination meetings with Reclamation, WAPA and BANC. Continue to provide support for following WAPA determination on implementing EIM.	4/2019 - Ongoing Ongoing s and power demands.	Public comment period on EIM ended on 8/16/19. On Aug 27, 2019, WAPA made a determination to move forward with their Sierra Nevada Region's participation in EIM.	
(IV).1.a Co	Continue to meet with customers to evaluate benefit and costs for implementation. Continue coordination meetings with Reclamation, WAPA and BANC. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM.	4/2019 - Ongoing Ongoing s and power demands.	Public comment period on EIM ended on 8/16/19. On Aug 27, 2019, WAPA made a determination to move forward with their Sierra Nevada Region's participation in EIM. Water customers (SLDMWA, San Joaquin River Water Authority, and San Joaquin River Exchange	
(IV).1.a Co	Continue to meet with customers to evaluate benefit and costs for implementation. Continue coordination meetings with Reclamation, WAPA and BANC. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM.	4/2019 - Ongoing Ongoing s and power demands. 6/12/2019	Public comment period on EIM ended on 8/16/19. On Aug 27, 2019, WAPA made a determination to move forward with their Sierra Nevada Region's participation in EIM. Water customers (SLDMWA, San Joaquin River Water Authority, and San Joaquin River Exchange Contractors) have agreed to improve forecasting of operations at O'Neill. The new process is in development and anticipated for testing 10/1/19. The process will include	
(IV).1.a Co	Continue to meet with customers to evaluate benefit and costs for implementation. Continue coordination meetings with Reclamation, WAPA and BANC. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Splore water order schedules to allow for better forecasting of O'Neil Pump/Generaton Plant operations Meet with SLDMWA, San Joaquin River Water Authority, and San Joaquin River Exchange Contractors to discuss option on improving O'Neil Operations. Share power economics data with water customers.	4/2019 - Ongoing Ongoing s and power demands. 6/12/2019 6/12/2019	Public comment period on EIM ended on 8/16/19. On Aug 27, 2019, WAPA made a determination to move forward with their Sierra Nevada Region's participation in EIM. Water customers (SLDMWA, San Joaquin River Water Authority, and San Joaquin River Exchange Contractors) have agreed to improve forecasting of operations at O'Neill. The new process is in development and anticipated for testing 10/1/19. The process will include transmitting daily pumping generation schedule to the water authority between CVO and	
(IV).1.a Co	Continue to meet with customers to evaluate benefit and costs for implementation. Continue coordination meetings with Reclamation, WAPA and BANC. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM. Continue to provide support for following WAPA determination on implementing EIM.	4/2019 - Ongoing Ongoing s and power demands. 6/12/2019	Public comment period on EIM ended on 8/16/19. On Aug 27, 2019, WAPA made a determination to move forward with their Sierra Nevada Region's participation in EIM. Water customers (SLDMWA, San Joaquin River Water Authority, and San Joaquin River Exchange Contractors) have agreed to improve forecasting of operations at O'Neill. The new process is in development and anticipated for testing 10/1/19. The process will include transmitting daily pumping generation schedule to the water authority between CVO and	4/201

	Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings.	Ongoing		On
(IV).1.d Adv	vance discussions about optimizing operational flexibility scheduling.			
			Experiments 1, which proposed lower minimum takes in daylight low value hours, and 2, which proposed lower minimum takes in surrounding hours by raising minimum takes in the monring on-	
			peak hours, were accepted by Reclamation and WAPA to become a part of standard operations in	
			August 2019. Experiment 3, which proposed lower minimum takes for all customers allowing any	
	Evaluate proposals submitted by power customers to determine whether they should become part	0/2010 0 0 11	customers to pre-disclose portions of their intended BR schedule, is looking unlikely to transition	0/2040
	of standard operations.	8/2019 - Ongoing	into standard operations at this time.	8/2019 - 0
	Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings.	10/10/19 - Ongoing	Experiments are evaluated monthly and discussed regularly at Power Customer CCC meetings.	10/10/19 - 0
(IV) 2 - Track	s schedule for California zero carbon and carbon neutral rulemaking process.			
(10).2 11dck	schedule for camornia zero carbon and carbon neutral rulemaking process.			
			Reclamation is registered with California State list-serves responsible for SB-100 implementation	
	Reclamation's Power Resources Office will track the schedule for the California zero carbon and carbon neutral energy rulemaking process.	0/1/2021	and will receive updates as the rulemaking process continues. Reclamation's Power Resources Office will continue to work with the HPOC to keep awareness of this action.	
_	carbon neutral energy rulemaking process.	9/1/2021	office will continue to work with the fit oc to keep awareness of this action.	
V. Implem	entation - Improved Customer Service			
	pt framework for large-scale delta conveyance facility.			
(V).1.a Ado	Petramework for large scale delta conveyance facility.			
(V).1.a Ado	per framework for large scare delta conveyance facility.		Power customers were invited to the initial May 31 2019 meeting to discuss recent changes to	
(V).1.a Ado	per numework for large scare delta conveyance facility.		Power customers were invited to the initial May 31, 2019 meeting to discuss recent changes to the large-scale delta conveyance project and will continue to be involved in discussions as the	
(V).1.a Ado	Engage power in the planning process and provide regular updates to power customers.	5/31/19 - Ongoing		5/31/19 - (
(V).1.a Ado		5/31/19 - Ongoing	the large-scale delta conveyance project and will continue to be involved in discussions as the	5/31/19 - (
	Engage power in the planning process and provide regular updates to power customers.	5/31/19 - Ongoing	the large-scale delta conveyance project and will continue to be involved in discussions as the	5/31/19 - (
		5/31/19 - Ongoing	the large-scale delta conveyance project and will continue to be involved in discussions as the	5/31/19 - (