State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
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February 2, 2026

State Water Resources Control Board
Division of Water Rights
Attn: Bay-Delta & Hearings Branch
Submitted via email: SacDeltaComments@waterboards.ca.gov

Subject: Comment Letter – Revised Draft Sacramento/Delta Bay-Delta Plan Updates & Chapter 13 of Draft Staff Report

The California Department of Fish and Wildlife (CDFW) reviewed the State Water Resources Board's (State Water Board or Board) revised draft of updates to the Water Quality Control for the San Francisco Bay/Sacramento-San Joaquin Delta Watershed (Bay-Delta Plan) and Chapter 13, *Revised Plan Amendments*, of the draft Staff Report/Substitute Environmental Document (Staff Report) in support of the Sacramento/Delta updates to the Bay-Delta Plan.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the draft Bay-Delta Plan and Staff Report that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (Id., § 1802.). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

Project Description Summary

State law requires that the State Water Board adopt water quality control plans to reasonably protect beneficial uses of water. The Board is required to periodically review its water quality control plans and to update those plans as needed through a public process. The Board protects water quality that affects beneficial uses of water in the

Bay-Delta, in part, through its Bay-Delta Plan. The Bay-Delta Plan identifies (1) beneficial uses of water in the Bay-Delta, which currently include municipal, industrial, agricultural, and fish and wildlife uses; (2) largely flow based water quality objectives to reasonably protect the beneficial uses; and (3) a program of implementation to achieve the objectives, including monitoring and reporting requirements.

In September 2023, the State Water Board released a draft Staff Report evaluating the potential environmental, water supply, and economic effects of different alternatives for the Sacramento/Delta updates to the Bay-Delta Plan. The draft Staff Report evaluated the following: proposed Plan amendments that were based on the 2018 Framework for possible Sacramento/Delta updates to the Bay-Delta Plan; proposed voluntary agreements (VAs), referred to as the Healthy Rivers and Landscapes (HRL) proposal; and Low Flow and High Flow alternatives; as well as several modular alternatives that would modify the other alternatives.

In October 2024, Board staff released a draft of potential updates to the Bay-Delta Plan that incorporated alternatives identified in the draft Staff Report with revisions based on public comments. Following a public comment period on the 2024 draft Plan, a revised draft of Plan updates was released in July 2025. The Board delayed public comment on the July 2025 revised draft Plan in order to make further revisions and to allow for comments on the revised draft Plan to be provided with the limited recirculation of the draft Staff Report as part of a new Chapter 13 to the draft Staff Report.

Both of these documents reflect the updated proposed project, which brings together in the Bay-Delta Plan program of implementation a VA pathway that incorporates HRL commitments and would apply to HRL water rights and a regulatory pathway that would apply to other water rights and to HRL water rights in the event the VA pathway is discontinued. Chapter 13 provides a comparative analysis of the revised proposed Plan amendments based on the 2023 Draft Staff Report with any necessary modifications to ensure that the public has the opportunity for additional meaningful public review and comment.

Revisions to the Draft Bay-Delta Plan

The December 2025 revised draft Bay-Delta Plan (2025 revised draft) includes proposed changes to the draft Bay-Delta Plan released in October 2024 (2024 draft) based on public input and comments received throughout the planning process, including comments on several options for possible changes to the plan identified in the 2024 draft. Specifically, the 2024 draft identified the possible inclusion of flow, cold water habitat and related provisions that were based on the proposed Plan amendments and alternatives identified in the 2023 draft Staff Report in support of updates to the Bay-Delta Plan, as well as options for these provisions.

The 2024 draft also identified the possible inclusion of a VAs under the HRL proposal to provide flow and nonflow habitat commitments proposed by state and federal agencies, public water agencies, and other water users, as well as options associated with

inclusions of these provisions. The regulatory provisions would apply to all water right holders if the Board did not move forward with VAs, or in the event the Board moved forward with VAs would apply to water rights not participating in approved VAs. The 2025 revised draft proposes to move forward with the HRLs and VA pathway in the Bay-Delta Plan for water rights included in approved VAs and the regulatory provisions for water rights not included as part of approved VAs (regulatory pathway).

The 2025 revised draft also includes proposals for addressing other options identified in the 2024 draft. The 2025 revised draft also proposes the designation of Tribal Tradition and Culture (CUL) beneficial use as part of the current Bay-Delta Plan update. The 2025 revised draft Plan retains the narrative portions of the new inflow, cold water habitat, inflow-based Delta outflow, and interior Delta flow objectives described in the 2024 draft with modifications, and incorporates the numeric portion of the inflow objective in the program of implementation.

The 2023 draft Staff Report identified inflows under the proposed Plan amendments of 55 percent of unimpaired flow, within an adaptive range of 45 to 65 percent based on the 2017 Scientific Basis Report in Support of Sacramento/Delta Updates to the Bay-Delta Plan. The 2024 draft Plan identified that the Board was considering changes to these flow levels and solicited comments on possible changes. In response to concerns that the proposed flow levels would have significant water supply impacts and could result in drawing down reservoir storage (with associated temperature impacts) under existing water rights that water users need time to plan for and adjust to, modifications to the starting point for the inflows under the regulatory pathway have been incorporated in the 2025 revised draft, referred to as water supply adjustments or WSAs, that reduce water supply impacts and allow more water to be stored in reservoirs. These WSAs allow for lowering the percent of unimpaired flow requirements during all but the wettest hydrologic conditions down to 45 or 35 percent of unimpaired flow, with additional tributary specific WSAs for certain tributaries where appropriate.

Changes to the VA pathway described in the 2024 draft Plan were also incorporated in the 2025 revised draft, including refinements to: the description of the HRL flow commitments; the provisions for continuation, modification, or termination of the VA pathway; the provisions for addressing new water supply projects; the VA habitat accounting provisions; and other provisions. In addition, new HRL proposals on the Bear River/Auburn Ravine from Nevada Irrigation District and South Sutter Water District and on Putah Creek from Yolo County Flood Control and Water Conservation District were submitted to the Board after the 2024 draft Plan was released and their commitments have been added in the 2025 revised draft. A draft of the VA flow accounting appendix is also included in Appendix B.1. The appendix contains draft accounting for each VA tributary, the Delta, export reduction commitments, and water purchases.

General Comments

As noted in our previous comment letters on the draft Bay-Delta Plan update, CDFW reiterates that given the prolonged and severe decline in numerous native species in the San Francisco Bay/Sacramento-San Joaquin Delta Watershed, the current Bay-Delta Plan's flow and water quality objectives are not providing reasonable protection of fish and wildlife beneficial uses and need to be updated. This is echoed in the latest State of Our Estuary Report by the San Francisco Estuary Partnership (SFEP) and San Francisco Estuary Institute (SFEI), which assessed freshwater flow conditions in the San Francisco Bay and Sacramento-San Joaquin Delta (Estuary) remain poor and declining and the fish community in Suisun Bay and the Delta is in poor condition. Reductions in freshwater flows have created chronic, artificial drought conditions in the Estuary. High-volume flood flows in winter and spring are less common and the once-dramatic differences in flow levels between the wet and dry seasons, and between wet years and drought years, have been reduced (SFEP and SFEI 2026). Some localized improvements in native fish abundance in nearshore and wetland channel habitats of the Delta suggest the potential for freshwater outflow and habitat restoration to improve conditions. However, the broader native fish community in the Delta remains degraded because human-caused alterations have reduced the system's capacity to support native aquatic life (SFEP and SFEI 2026).

CDFW commends the State Water Board staff's progress in updating the Bay-Delta Plan. CDFW has been actively engaged in the process of updating the Bay-Delta Plan and has previously provided both written and oral comments as well as significant technical input in meetings and workshops over the years covering both unimpaired flow approaches, habitat restoration, biological goals, and voluntary agreements.

CDFW understands the immense pressure the Board is under but is still concerned about many of the changes from the 2024 draft Bay-Delta Plan update to the 2025 revised draft Bay-Delta Plan update. This includes:

1) Removing the 2023 proposed Plan amendment of 55% of unimpaired flow regulatory pathway, with an adaptive range from 45 to 65% of unimpaired flow, as an alternative if the VA pathway is not adopted by the Board. Board staff spent considerable time, resources, and evidence supporting the 55% of unimpaired flow proposed Plan amendment to maximize all beneficial uses of water through the 2017 Scientific Basis Report, 2018 Framework, and 2023 draft Staff Report (SWRCB 2017, 2018).

2) Lowering the numeric inflow requirement for the 2025 draft Plan regulatory pathway from 45-65% to 35-55% with water supply adjustments. This new 35-55% with water supply adjusts Plan amendment shows results in the 2025 draft Staff Report that are similar to the Low Flow Alternative (35 and 45 flow scenarios) and represents significant differences in additional hydrology and lesser benefits to native fish and wildlife compared to the original 45-65% proposed Plan amendment.

3) Removal of drought provisions (i.e. expansion of Term 91 approach and shared water storage) to protect minimum (base) Delta outflows during critical water years and declared droughts in order to avoid the need for Temporary Urgency Change Petitions (TUCPs) and cold water pool impacts. During all drought years since the 1995 Bay-Delta Plan was implemented, there have been difficulties meeting the existing flow-based water quality objectives. TUCPs issued by the Central Valley Project and State Water Project (Projects) degrade environmental conditions to the detriment of native fish (e.g. reduces through Delta survival of out migrating juvenile salmonids, moves the X2 low salinity zone upstream constraining habitat suitability for Delta Smelt and Longfin Smelt, impacts food web production, abundance, and recruitment, etc.[1]).

4) Not having explicit language protecting VA flow base and proposed Plan amendments from being reduced by new water supply projects. The implementation of water infrastructure projects currently being planned would reduce Delta outflows in a system that is already suffering from impaired flow. CDFW encourages the State Water Board to consider the potential implementation of these water infrastructure projects when evaluating alternatives for the Bay-Delta Plan Update, and to ensure that Bay-Delta Plan flows are protected, thereby ensuring their ecosystem benefits.

Additionally, CDFW is disturbed by any proposed Plan amendment in the 2025 draft Staff Report in which the change in hydrology over baseline results in reduced flows in critically dry water years, especially in the January through June time period. For example, in the Sacramento River at Keswick, the 55% unimpaired flow w/WSA alternative results in -317 thousand acre feet (TAF) and -41 TAF in the HRL alternative. Lower flows and associated higher water temperature delay adult migration, lowers survival of adult salmon returning to their spawning grounds, reduces fecundity, and decreases egg survival (NMFS 2014, CDFW 2017, SWRCB 2017). Juvenile salmon are known to have low survival during low-outflow years (Michel et al. 2015), with reductions in survival as great as 95% during severe drought conditions (i.e. successive critically dry and dry water years) (Stewart et al. 2020). Low flow conditions from the last two droughts (2012-2016 and 2020-2022) have negatively impacted salmon populations (Azat 2025, Hartman et al. 2025) contributing to commercial fishing closures for 2023-2025 and ocean recreational fishing closures in 2023 and 2024 (a very limited season was allowed in 2025) (CDFW 2025, etc.).

Based on previous comments from CDFW on the 2023 draft Staff Report and subsequent comments made during the public hearings from members of the public as well as from State Water Board members, CDFW would have liked to see a more direct and consistent comparison of alternatives in the Staff Report from Chapters 6, 7, 9, and 13. While there is abundant information provided for each alternative as well as an analyses of impacts, it is difficult to assess how the various alternatives compare to one

[1] See https://www.waterboards.ca.gov/drought/tucp/ for references

another, particularly how 2025 draft Staff Report alternatives compares to the 2023 draft Staff Report unimpaired flow alternatives. For example:

- Chapters 9 and 13 include the change in hydrology over baseline for January through June, July through December, and annual for the 55% w/ WSAs alternative and the VA alternative. Whereas Chapter 6 only includes changes in hydrology for over baseline for the 35, 55, and 75 percent unimpaired flow alternatives for the January through June period for the Sacramento Valley tributaries (Delta Inflow and Delta Outflow are only reported for the annual period and South of Delta Exports is not included). In order to have the change in hydrology over baseline for the July through December and annual periods for the unimpaired flow scenarios, to be consistent with the VA pathway alternative, the reader must go into Appendix A1 and make multiple conversions and calculations for each tributary, Delta Inflow, Delta Outflow, etc.

- In order to obtain the unimpaired flow scenarios for the updated SacWAM modeling in Chapter 13, one must turn to Appendix H1a3 and do the calculations like in Appendix A1. In addition, Appendix H1a3 does not include the 75% unimpaired flow alternative which is in the 2023 draft Staff Report.

- The Estuary Habitat Analysis only has a figure and not a table to show total suitable area expected for each species by water year type for the various VA scenarios. It is difficult to decipher from the figure what the numbers are. In addition, there is no analysis of estuary habitat for the 35 through 75 percent unimpaired flow alternatives.

- The tributary habitat analyses (rearing habitat, spawning habitat, floodplain inundation) include tables for the HRL alternative and the 55 w/WSA alternative, however there is no analysis for the 35 through 75 percent unimpaired flow alternatives.

Summary tables displaying key metrics such as changes over baseline for hydrology, storage, water supply, water temperature, habitat, and biological resources for each alternative would allow for greater public transparency and understanding. We've included a copy in Attachment 1 that might be helpful for readers.

Despite the above concerns, CDFW does support the following changes in the revised draft:

1) The designation of the Tribal Tradition and Culture beneficial use for the Bay-Delta watershed, as well as provisions for a Tribal Advisory Group and other provisions to facilitate tribal participation and feedback;

2) The new narrative flow objectives (Sacramento/Delta tributary inflow, cold water habitat, Delta outflow, inflow-based Delta outflow, and interior Delta) and

narrative fish viability objective are incorporated into the Program of Implementation and would apply to both the regulatory pathway and the VA pathway;

3) Updated VA supplemental pesticide monitoring requirements and additional requirements for monitoring methylmercury in the bypass floodplains, fish food production, and tidal wetlands; and

4) Acknowledgement of the VA Science Committee and that it would include participation from environmental NGOs, California Native American Tribes, and any other interested parties.

Based on the results of the various metrics analyzed in the 2023 draft Staff Report and 2025 draft Staff Report (e.g. hydrology, ecological flow thresholds, abundance indices, etc.) the unimpaired flow alternatives result in greater ecological benefits for native Bay-Delta species as compared to the HRL proposal. However, the tradeoff being that the VA pathways would be implemented sooner, and ecological benefits would occur quicker, than a regulatory pathway due to the controversial, litigious, and politically sensitive nature of the issue. CDFW supports an approach that achieves the objectives of the Bay-Delta Plan, especially if such an approach also expedites implementation of beneficial actions. The 2018 Bay-Delta Plan, which incorporated Phase I amendments, explicitly requires VA signatories to maintain at least the lower end of the unimpaired flow range established as part of new numeric water quality objectives, stating that if VAs "include non-flow actions recommended in this Plan or by DFW, the non-flow measures may support a change in the required percent of unimpaired flow, within the range prescribed by the flow objectives, or other adaptive adjustments otherwise allowed in this program of implementation."

CDFW acknowledges the need for habitat restoration in combination with increased instream flow, Delta inflow, and Delta outflow. When designing, planning and implementing habitat restoration actions, CDFW provides the following recommendations:

- Consider and prioritize projects that restore natural ecosystem processes and support the Bay-Delta ecosystem's ability to maintain and create habitat, acknowledging that habitat is not static in space and time. This could include projects that increase both longitudinal and lateral connectivity, or projects that allow natural processes of erosion, deposition and seasonal flooding that continually change and enrich riparian areas, create and sustain habitat or allow river channel migration and meandering.

- Consider and prioritize projects that reduce the need for long term operation, maintenance, and active management to the extent feasible. CDFW acknowledges that such active management cannot be entirely avoided (e.g., weir notches or fish passage structures to alleviate existing fish passage issues)

but careful consideration should be given before implementing projects that add new infrastructure to an already heavily altered landscape.

- Consider and prioritize projects that address the aquatic ecosystem stressors described in SWRCB (2017) and SWRCB et al. (2023). Habitat modeling in SWRCB et al. (2023) shows that spawning and/or rearing habitat in some tributaries already meet the acreage to support 25% of the salmon doubling goal. Stressors other than physical spawning and rearing habitat merit consideration and prioritization as limits to salmon population growth. A more systematic analysis and ranking of aquatic ecosystem stressors for each tributary should be included in the HRL Science Program, including addressing any uncertainties.

- Consider comments from the HRL Science Independent Peer Review[2] and Scientific Basis Report Peer Review such as whether the flood bypasses are sources or sinks for native fish species (e.g. actions should consider both benefits and impacts to all native fish species and all life stages rather than single species/single life stage focused) or the assumption that food is currently a limiting factor for salmon population growth.

In addition to these general comments, Attachments 2 and 3 contains a list of more focused comments on the revised draft updates to the Bay-Delta Plan and Chapter 13 of the draft Staff Report.

Conclusion

CDFW appreciates the opportunity to comment on the draft Bay-Delta Plan to assist the State Water Board. CDFW is committed to engaging with the State Water Board, Department of Water Resources, and other HRL Parties to discuss outstanding comments. CDFW encourages the State Water Board to move expeditiously towards adopting an updated Bay-Delta Plan.

Questions regarding this letter or further coordination should be directed to Brycen Swart, Environmental Program Manager, at 916-767-3089 or Brycen.Swart@wildlife.ca.gov.

[2] https://deltacouncil.ca.gov/delta-science-program/healthy-rivers-and-landscapes-science-plan-independent-peer-review

Sincerely,

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Ecosystem Conservation Division

Attachment 1: Comparison of Alternatives

Attachment 2: Bay-Delta Plan Focused Comments and Recommendations

Attachment 3: Chapter 13 Staff Report Focused Comments and Recommendations

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Attachment 1: Comparison of Alternatives

Changes in Hydrology Over Baseline

December 2025
Chapter 13

October 2023
Chapter 6 and Appendix A.1

October 2023
Chapter 9

Sacramento - Keswick

Water Year Type	Proposed VA Assets	Model Results								
		January - June			July - December			Annual		
		Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA
C	0	1,984	-317	-41	2,458	-207	-33	4,442	-524	-74
D	100	2,098	16	111	2,647	-14	28	4,745	2	139
BN	100	2,357	243	77	2,752	-27	-85	5,109	216	-8
AN	100	3,400	288	101	2,986	-187	-104	6,386	101	-3
W	0	4,869	84	-16	3,603	-217	-40	8,472	-133	-56
All	N/A	3,127	59	40	2,967	-130	-40	6,094	-71	0

Water Year Type	Model Results											
	January - June				July - December				Annual			
	Baseline	35	55	75	Baseline	35	55	75	Baseline	35	55	75
C	1,880	-257	-124	159	2101	-58	-273	-499	3981	-315	-397	-339
D	1,938	-14	153	550	2277	51	-249	-508	4216	37	-95	42
BN	2,203	95	233	721	2469	28	-61	-590	4672	123	172	130
AN	3,111	80	289	719	2612	-2	28	-628	5723	78	317	91
W	4,442	30	201	349	3225	-22	-180	-305	7668	8	21	44
All	2,882	-8	155	480	2613	0	-162	-476	5495	-7	-7	4

Water Year Type	Proposed VA Assets	Model Results					
		January - June		July - December		Annual	
		Baseline	VA	Baseline	VA	Baseline	VA
C	0	1,998	-30	2,446	-17	4,444	-47
D	100	2,105	135	2,669	12	4,774	147
BN	100	2,401	103	2,815	-103	5,216	0
AN	100	3,409	130	2,994	-141	6,403	-11
W	0	4,804	-2	3,688	-40	8,492	-42
All	N/A	3,122	61	3,008	-49	6,130	12

Feather

Water Year Type	Proposed VA Assets	Model Results								
		January - June			July - December			Annual		
		Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA
C	0	987	60	7	1,187	-247	-32	2,174	-187	-25
D	60	1,383	315	116	1,716	-477	-7	3,099	-162	109
BN	60	2,098	515	136	2,165	-402	-94	4,263	113	42
AN	60	3,480	360	103	2,328	-178	-20	5,808	182	83
W	0	6,210	56	15	2,510	145	-35	8,720	201	-20
All	N/A	3,173	239	70	2,031	-201	-38	5,204	38	32

Water Year Type	Model Results											
	January - June				July - December				Annual			
	Baseline	35	55	75	Baseline	35	55	75	Baseline	35	55	75
C	1,025	69	329	728	1144	-129	-254	-203	2170	-60	75	525
D	1,426	282	670	1273	1797	-299	-726	-745	3224	-17	-56	527
BN	2,032	409	877	1583	2126	-195	-703	-1106	4158	214	173	477
AN	3,470	231	669	1545	2313	-92	-439	-969	5783	139	230	576
W	6,109	-51	30	726	2597	-13	141	-386	8705	-64	171	341
All	3,146	164	460	1112	2059	-139	-348	-644	5205	25	112	468

Water Year Type	Proposed VA Assets	Model Results					
		January - June		July - December		Annual	
		Baseline	VA	Baseline	VA	Baseline	VA
C	0	591	11	875	-10	1,466	1
D	60	635	119	1,420	-42	2,055	77
BN	60	849	106	1,702	-63	2,551	43
AN	60	1,609	36	1,663	-6	3,272	30
W	0	3,530	16	1,548	-30	5,078	-14
All	N/A	1,664	58	1,454	-32	3,118	26

Yuba

Water Year Type	Proposed VA Assets	Model Results								
		January - June			July - December			Annual		
		Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA
C	0	253	58	-9	178	-4	-3	431	54	-12
D	50	463	84	14	244	-10	0	707	74	14
BN	50	804	63	37	295	-12	-10	1,099	51	27
AN	50	1,263	56	43	403	-10	-11	1,666	46	32
W	0	2,005	29	-12	658	0	-20	2,663	29	-32
All	N/A	1,059	56	11	388	-6	-10	1,447	50	1

Water Year Type	Model Results											
	January - June				July - December				Annual			
	Baseline	35	55	75	Baseline	35	55	75	Baseline	35	55	75
C	357	56	140	253	354	0	-24	-121	711	56	116	132
D	567	69	182	372	414	-13	-22	-44	981	56	160	328
BN	833	70	177	396	470	-34	-62	-105	1303	36	115	291
AN	1,268	44	148	371	573	-42	-78	-90	1841	2	70	281
W	1,893	33	39	196	819	-55	-36	-69	2713	-22	3	127
All	1,071	53	127	304	557	-31	-41	-81	1629	22	86	223

Water Year Type	Proposed VA Assets	Model Results					
		January - June		July - December		Annual	
		Baseline	VA	Baseline	VA	Baseline	VA
C	0	262	-10	187	-5	449	-15
D	50	483	21	250	-2	733	19
BN	50	779	33	302	-10	1,081	23
AN	50	1,268	48	419	-16	1,687	32
W	0	1,947	-9	684	-22	2,631	-31
All	N/A	1,043	13	402	-12	1,445	1

December 2025

Chapter 13

October 2023

Chapter 6 and Appendix A.1

October 2023

Chapter 9

American

Water Year Type	Proposed VA Assets	Model Results								
		January - June			July - December			Annual		
		Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA
C	30	415	64	39	434	-37	-5	849	27	34
D	40	701	103	75	671	-98	-50	1,372	5	25
BN	10	1,054	135	32	810	-90	-36	1,864	45	-4
AN	10	1,620	114	19	992	-127	-13	2,612	-13	6
W	0	2,572	69	5	1,272	-62	-7	3,844	7	-2
All	N/A	1,401	94	33	881	-79	-22	2,282	15	11

Water Year Type	Model Results											
	January - June				July - December				Annual			
	Baseline	35	55	75	Baseline	35	55	75	Baseline	35	55	75
C	446	66	100	171	393	-28	-47	-93	839	38	53	78
D	720	36	166	352	659	-59	-130	-176	1380	-23	36	176
BN	1,065	35	222	411	782	-7	-172	-231	1847	28	50	179
AN	1,674	38	149	299	929	-4	-147	-286	2604	34	2	13
W	2,491	13	84	196	1259	-19	-55	-243	3750	-6	29	-46
All	1,395	34	139	280	854	-25	-104	-207	2250	9	35	73

Water Year Type	Proposed VA Assets	Model Results					
		January - June		July - December		Annual	
		Baseline	VA	Baseline	VA	Baseline	VA
C	30	447	29	393	-1	840	28
D	40	721	60	659	-52	1,380	8
BN	10	1,069	28	782	-39	1,851	-11
AN	10	1,680	28	929	-15	2,609	13
W	0	2,493	7	1,259	-4	3,752	3
All	N/A	1,398	29	854	-22	2,252	7

Mokelumne

Water Year Type	Proposed VA Assets	Model Results								
		January - June			July - December			Annual		
		Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA
C	0	47	7	0	37	0	0	84	7	0
D	5	64	69	3	53	-10	0	117	59	3
BN	5	119	96	1	113	-53	-2	232	43	-1
AN	7	231	97	3	180	-69	-5	411	28	-2
W	0	521	57	1	274	-68	-2	795	-11	-1
All	N/A	230	64	2	144	-41	-2	374	23	0

Water Year Type	Model Results											
	January - June				July - December				Annual			
	Baseline	35	55	75	Baseline	35	55	75	Baseline	35	55	75
C	49	58	101	145	38	2	3	0	87	59	104	145
D	66	93	169	247	52	-4	-3	-5	119	89	166	242
BN	123	90	193	300	113	-44	-58	-58	236	46	135	243
AN	223	84	195	323	180	-35	-87	-91	403	49	107	232
W	489	27	102	231	261	-8	-52	-96	749	19	50	136
All	221	66	146	245	140	-16	-38	-52	362	50	108	193

Water Year Type	Proposed VA Assets	Model Results					
		January - June		July - December		Annual	
		Baseline	VA	Baseline	VA	Baseline	VA
C	0	49	1	38	0	87	1
D	5	66	3	52	-1	118	2
BN	5	123	3	113	-2	236	1
AN	7	224	3	180	-4	404	-1
W	0	489	2	261	-2	750	0
All	N/A	222	2	140	-2	362	0

Putah Creek

Water Year Type	Proposed VA Assets	Model Results								
		January - June			July - December			Annual		
		Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA
C	7	14	6	1	8	1	2	22	7	3
D	6	15	19	1	8	5	2	23	24	3
BN	6	23	20	0	8	5	2	31	25	2
AN	6	28	53	-1	9	8	2	37	61	1
W	0	190	-19	-5	14	16	1	204	-3	-4
All	N/A	71	10	-1	10	8	2	81	18	1

Water Year Type	Model Results											
	January - June				July - December				Annual			
	Baseline	35	55	75	Baseline	35	55	75	Baseline	35	55	75
C	15	22	38	55	8	5	8	17	22	27	45	72
D	15	37	62	88	8	9	15	22	24	46	78	110
BN	24	50	89	129	8	8	14	20	32	59	103	148
AN	29	96	163	231	9	16	26	37	39	112	189	268
W	194	6	80	168	15	28	48	67	209	34	128	235
All	72	35	81	133	10	15	25	36	83	50	107	169

Water Year Type	Proposed VA Assets	Model Results					
		January - June		July - December		Annual	
		Baseline	VA	Baseline	VA	Baseline	VA
C	7	15	1	8	2	23	3
D	6	15	1	8	2	23	3
BN	6	24	0	8	2	32	2
AN	6	30	-1	9	2	39	1
W	0	194	-5	15	1	209	-4
All	N/A	72	-1	10	2	82	1

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Chapter 6 and Appendix A.1

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Chapter 9

Delta Inflow

Water Year Type	January - June			July - December			Annual		
	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA
C	5,261	94	11	4,463	-299	-60	9,724	-204	-49
D	7,025	658	334	6,036	-631	-3	13,061	27	331
BN	10,109	1085	283	6,813	-589	-171	16,922	497	111
AN	16,181	1001	260	8,198	-568	-96	24,379	433	164
W	25,321	366	4	10,780	-152	-77	36,101	213	-74
All	13,986	602	163	7,631	-417	-78	21,617	185	84

Water Year Type	January - June				July - December				Annual			
	Baseline	35	55	75	Baseline	35	55	75	Baseline	35	55	75
C	5,298	212	781	1,612	4,372	5	-302	-368	9,669	216	479	1,244
D	7,088	491	1,462	2,936	6,081	-333	-952	-1,108	13,169	159	511	1,828
BN	9,997	694	1,729	3,549	6,837	-240	-996	-1,646	16,834	454	734	1,902
AN	16,183	525	1,487	3,467	8,112	-159	-698	-1,712	24,295	366	789	1,755
W	24,924	15	487	1,901	10,955	-40	-111	-1,010	35,879	-26	376	891
All	13,874	344	1,111	2,591	7,673	-151	-569	-1,135	21,547	193	542	1,456

Water Year Type	January - June			July - December			Annual		
	Baseline	VA	VA High Inflow	Baseline	VA	VA High Inflow	Baseline	VA	VA High Inflow
C	5,313	44	109	4,372	-20	-20	9,685	24	89
D	7,098	428	586	6,081	-44	-44	13,179	384	542
BN	10,033	367	436	6,837	-167	-167	16,870	200	269
AN	16,250	293	429	8,112	-147	-147	24,362	146	282
W	24,949	-1	122	10,955	-88	-88	35,904	-89	34
All	13,902	208	322	7,673	-89	-89	21,575	119	233

South of Delta Exports

Water Year Type	January - June			July - December			Annual		
	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA
C	1,233	-93	-23	1,791	-292	-38	3,023	-386	-61
D	1,567	-56	116	2,988	-706	-56	4,555	-762	60
BN	1,694	163	240	3,455	-568	-139	5,149	-405	101
AN	1,918	251	222	3,565	-477	-76	5,483	-226	146
W	2,757	87	210	3,743	-214	-49	6,499	-127	162
All	1,940	61	159	3,183	-436	-69	5,123	-375	89

Water Year Type	January - June				July - December				Annual			
	Baseline	35	55	75	Baseline	35	55	75	Baseline	35	55	75
C	1,175	27	-118	-512	1,712	13	-444	-914	2,886	40	-561	-1,426
D	1,543	-110	-292	-755	3,025	-332	-1,183	-2,052	4,568	-442	-1,475	-2,808
BN	1,665	0	-217	-605	3,444	-197	-1,113	-2,362	5,108	-196	-1,330	-2,967
AN	1,911	27	-140	-380	3,519	-54	-859	-2,534	5,430	-27	-999	-2,914
W	2,709	17	-30	-387	3,711	-40	-358	-1,897	6,420	-23	-388	-2,284
All	1,904	-12	-151	-529	3,160	-128	-761	-1,941	5,065	-140	-912	-2,470

Water Year Type	January - June			July - December			Annual		
	Baseline	VA	VA High Export Cuts	Baseline	VA	VA High Export Cuts	Baseline	VA	VA High Export Cuts
C	1,179	-25	-96	1,712	-42	-42	2,890	-66	-137
D	1,545	121	-60	3,025	-120	-120	4,570	1	-180
BN	1,669	249	161	3,444	-105	-105	5,113	144	56
AN	1,917	224	76	3,519	-73	-73	5,436	151	4
W	2,712	226	97	3,711	-56	-56	6,423	170	41
All	1,908	166	40	3,160	-79	-79	5,068	86	-40

Delta Outflow

Water Year Type	January - June			July - December			Annual		
	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA	Baseline	55 w/WSAs	VA
C	3,555	194	107	1,892	5	-22	5,447	199	85
D	5,025	709	398	2,300	83	54	7,324	792	452
BN	8,064	914	131	2,603	-17	-32	10,667	897	99
AN	14,056	740	188	3,911	-79	-18	17,967	660	170
W	22,447	277	-78	6,391	65	-28	28,837	342	-106
All	11,745	538	130	3,727	26	-8	15,472	564	122

Water Year Type	January - June				July - December				Annual			
	Baseline	35	55	75	Baseline	35	55	75	Baseline	35	55	75
C	3,648	186	907	2,135	1,875	-4	150	555	5,523	182	1,057	2,690
D	5,118	598	1,761	3,710	2,313	2	244	957	7,431	600	2,005	4,667
BN	7,982	692	1,951	4,174	2,642	-43	126	735	10,624	649	2,077	4,909
AN	14,065	494	1,631	3,863	3,877	-103	171	855	17,942	391	1,802	4,718
W	22,083	-2	515	2,300	6,608	-1	248	901	28,691	-3	763	3,201
All	11,667	355	1,266	3,136	3,797	-22	199	821	15,464	333	1,465	3,957

Water Year Type	January - June			July - December			Annual		
	Baseline	VA	VA w/o SJ	Baseline	VA	VA w/o SJ	Baseline	VA	VA w/o SJ
C	3,659	142	92	1,875	22	13	5,534	164	105
D	5,127	488	400	2,313	77	66	7,440	565	466
BN	8,014	206	122	2,642	-61	-69	10,656	145	53
AN	14,128	218	180	3,877	-75	-64	18,005	143	116
W	22,106	-98	-91	6,608	-32	-34	28,714	-130	-125
All	11,691	169	123	3,797	-9	-14	15,488	160	109

Change in Habitat

Spawning Habitat

Change in Median Acres from Baseline

Watershed	55 w/WSAs	HRL				
		Committed Acres	Acres to support 25% of doubling goal	Median Acres Baseline	Acres added by HRL	Median Total Acres with HRL
American	0	25	23.5	7.78	5.89	13.67
Feather	-3	15	28	44.65	12.66	57.31
Mokelumne	0	0	2	5.92	0	5.92
Sacramento - FR	0	113.5	44.25	57.71	105.71	163.42
Sacramento - SR	-1	113.5	6.25	40.9	86.77	127.67
Yuba	-3	0	7.5	118.77	-2.69	116.08

Rearing Habitat

Change in Median Acres from Baseline

Watershed	55 w/WSAs	HRL				
		Committed Acres	Acres to support 25% of doubling goal	Median Acres Baseline	Acres added by HRL	Median Total Acres with HRL
American	0	75	240.5	84.85	20.68	105.53
Feather	42	1,660.25	287.5	201.66	178.98	380.64
Mokelumne	0	26	19.25	155.69	7.4	163.09
Sacramento - FR	-1	137.5	452	121.82	40.41	162.23
Sacramento - SR	-3	137.5	64.5	184.26	52.69	236.95
Yuba	-4	150	76.25	248.51	43.94	292.45

Floodplain Habitat

Percent of Years in Which MFE Are Attained in Each Trib for 25% of the Doubling Goar Habitat Area

Watershed	Baseline	55 w/WSAs	HRL
American	0%	0%	
Feather	46%	62%	63%
Mokelumne	49%	79%	52%
Sacramento - FR	19%	20%	
Sacramento - SR	46%	51%	
Yuba	68%	68%	69%

Ecological Flow Thresholds

Frequency of Exceeding Ecological Flow Thresholds

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December 2025

Threshold (cfs)	Minimum Required Delta Outflow	Baseline	55 w/WSAs	VA
Georgiana Slough flow reversal low (17,000)		52%	59%	54%
Georgiana Slough flow reversal high (20,000)		44%	50%	45%
Fall run outmigration Rio Vista (20,000)		26%	31%	26%
Winter run outmigration Rio Vista (20,000)		57%	65%	59%
Late-Fall and Winter run outmigration Freeport (35,300)		28%	28%	28%
Fall, Winter, and Spring run outmigration Wilkins Slough (10,700)		29%	34%	29%
Fall, Winter, and Spring run fry presence (17,700)		51%	60%	52%
Fall, Winter, and Spring run fry abundance (26,500)		34%	37%	35%
Bay Shrimp low (20,000)	0%	52%	64%	53%
Bay Shrimp high (25,000)	0%	43%	51%	45%
Longfin smelt (43,000)	0%	30%	32%	29%
Delta smelt (10,200)	0%	22%	32%	22%
Sacramento splittail low (30,000)	0%	39%	45%	39%
Sacramento splittail high (47,000)	0%	25%	27%	25%
Starry flounder (21,000)	0%	45%	53%	47%
Green and white sturgeon (37,000)	0%	16%	18%	16%
Collinsville (7,100)	96%	99%	99%	99%
Chipps Island (11,400)	11%	80%	87%	86%
Port Chicago (29,200)	0%	40%	45%	42%

Chapters 7 and 9

October 2023

35	45	55	65	75
N/A[3]	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
28%	29%	33%	38%	47%
57%	61%	68%	77%	83%
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
59%	70%	73%	82%	87%
48%	49%	61%	71%	75%
31%	31%	32%	34%	37%
N/A	N/A	N/A	N/A	N/A
45%	49%	54%	62%	70%
26%	27%	29%	31%	38%
49%	52%	63%	72%	80%
15%	15%	19%	24%	28%
99%	99%	100%	100%	100%
87%	88%	95%	96%	98%
43%	46%	48%	55%	59%

[3] N/A = Not available

Aquatic Biological Resources

Abundance Indices – Potential Percent Increase Relative to Baseline

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December 2025

Species	Water Year Type	55 w/WSAs	VA
California bay shrimp	Critical	4	3
	Dry	12	8
	Below Normal	9	2
	Above Normal	3	2
	Wet	1	0
Longfin smelt	Critical	8	4
	Dry	20	11
	Below Normal	16	2
	Above Normal	7	2
	Wet	2	0
Sacramento splittail	Critical	9	6
	Dry	19	11
	Below Normal	12	2
	Above Normal	4	2
	Wet	1	-1
Starry flounder	Critical	4	3
	Dry	11	8
	Below Normal	10	2
	Above Normal	5	1
	Wet	2	0

Chapters 7 and 9
October 2023

35	45	55	65	75	VA
5	14	24	34	44	4
10	18	27	38	48	10
7	12	20	29	4	3
3	4	8	13	20	2
0	1	2	5	9	0
7	20	36	62	90	5
17	30	51	80	113	13
12	21	35	55	79	4
5	9	16	26	40	2
0	1	3	9	15	-1
6	19	32	49	67	5
13	23	37	55	74	13
9	15	23	35	49	3
3	5	10	15	24	2
0	0	2	6	10	0
4	11	19	29	38	4
8	15	24	33	43	9
7	12	20	29	37	3
3	5	9	15	21	2
0	1	3	6	10	0

Attachment 2: Draft Bay-Delta Plan Focused Comments and Recommendations

Page #	Section	Comment	Solution
15	3.3 Table 2. Western Delta, Interior Delta	Some time periods in the table have overlapping days	Suggest successive time periods start on a subsequent day.
19	3.4 Table 2. Interior Delta Flows, SWP and SVP Export Facilities, February	How will the required percentage be determined and communicated when the value is between 35 and 45%?	Suggest including the description of this process from D-1641, assuming the process is the same.
23	3.4 Figure 2, Footnote 2	Footnote 2 talks about San Joaquin water year type and Lower San Joaquin Objectives, but the figure is for Sacramento Valley water year hydrologic classification.	Suggest removing San Joaquin information, if this was unintended.
39	4.4.1.1 Implementation of February through June LSJR Flow Objectives	Document stated that the San Joquin flow objectives are to be implemented by 2022, but this is 2026 and they are not yet implemented. It is confusing to include past dates for implementation which were not met.	Suggest including footnotes discussing implementation of the SJR objectives and noting that the 2022 deadline has passed without implementation.
40	4.4.1.2 Flow Requirements for February through June	Tuolumne gauge location in Table 3 is not comparable to compliance locations identified for other tributaries.	Suggest Executive Director consider changing compliance point for the Tuolumne from Modesto gauge downstream to gauge TRT (Tuolumne River at Shiloh) to better align with gauge locations in the Mered and Stanislaus Rivers.
42	4.4.1.2 Flow Requirements for February through June	Subsection d does not include a location.	Suggest subsection d be revised to clarify that it applies to Vernalis
47	4.4.2.2 Narrative Inflow Objective for Sacramento/Delta	River flows based on storage can easily be manipulated through storage withdrawals.	Suggest reservoir operators develop an operating plan or develop rules to avoid this potential problem.

Page #	Section	Comment	Solution
	Tributaries, Tributary-Specific WSAs		
47	4.4.2.2 Narrative Inflow Objective for Sacramento/Delta Tributaries, Table 5. Tributary-Specific WSAs	There are no minimum flows required in reduced storage conditions.	Suggest a minimum flow requirement should apply at all times as modern drought conditions are the most stressful on native aquatic species populations.
49	4.4.2.2 Narrative Inflow Objective for Sacramento/Delta Tributaries, Table 6 Tributaries That Are Initially Subject to the Sacramento/Delta Inflow Requirement	The footnote discusses accurately measuring flows using flow gauges including existing ones. What kind of existing flow gauges are there? Would there be a requirement for a certain type of gauge to be used to ensure consistency across reaches, forks, branches, tributaries, etc.?	Recommend describing what standard flow gauge(s) would be used and how inflow would be calculated with assumptions and uncertainties.
54	4.4.2.3 Sacramento/Delta Cold Water Habitat Objective, Table 8 Carryover (End of September) Storage Target Ranges	The range of carryover storage target at New Bullards Bar Reservoir is the same for both drought and non-drought years.	Assuming this was an error, as no other reservoir is like this. If this was not an error, please explain why the values are both the same.
59	4.4.2.7 Base and Table 4 Delta Outflow Objectives	Only subsection iv has an exceedance level identified.	Suggest including exceedance levels for sub ii and iii as well.
62	4.4.4.4 Export Limits Based on Delta Inflows	No percentage exceedance level is identified.	Suggest including exceedance level.

Page #	Section	Comment	Solution
62	4.4.4.4 Export Limits Based on Delta Inflows	Aside from limitations on percentages of unimpaired flow diverted, how will water under the regulatory pathway and intended for Delta outflow be protected?	Suggest additional details about how flows under the regulatory pathway will be protected from export.
67-68	4.4.9.3 Additive Flows Above HRL Base, Table 9 VA Flow and Non-Flow Commitments	The table does not identify the amount of new expected Delta Outflow.	Suggest including a sum of new Delta Outflow.
67, 83	4.4.9.3 Additive Flows Above HRL Base, Table 9 VA Flow and Non-Flow Commitments 4.4.9.5 VA Non-Flow Habitat Restoration Actions	There is no differentiation of the 5,227.5 acres of tidal wetland habitat restoration from floodplain restoration since they are combined together, especially since habitat accounting treats them as two different habitat types.	Suggest listing both tidal wetland and floodplain restoration acreage separately rather than lumping it together.
82	4.4.9.5 HRL Non-Flow Habitat Restoration Actions	CDFW appreciates the revised language associated with subsection ii, Valley Floor restoration actions and would like to iterate that actions the flood bypasses should address the aquatic ecosystem stressors described in the Scientific Basis Repport and that beneficial actions with a higher level of certainty of beneficial outcomes should be pursued. These include restoration of natural floodplain habitat, improving the migratory corridor (e.g. eliminating barriers, improving flow, better coordinated water management etc.), create better connectivity laterally and longitudinally within the basins and to	N/A

Page #	Section	Comment	Solution
		the river(s) and avoiding or minimizing active management that requires long-term O&M and are single species/single life stage focused. Consistent with CDFW comments for other planning efforts in both Yolo and Sutter Bypasses, open channel concepts without water control structures and other fish passage hinderances should be explored in all fisheries enhancement or improvement projects. These recommendations are based upon decades of research, management actions and fish rescues conducted in Yolo and Sutter Bypasses as well as the Sacramento River (CDFW can provide references, if requested).	
83	4.4.9.6 Non-Flow Habitat Restoration Accounting	The document does not discuss lifespan of committed requires, required maintenance, and/or credit for maintenance of restored habitat.	Consider including some language on habitat decay, spawning gravel mobility, and maintenance of restoration projects.
88, 92	4.4.9.7 and 4.4.9.8 Supplemental Science and Monitoring	Section 4.4.9.7 begins with a statement about VA parties being required to conduct *supplemental science and monitoring*, in addition to the BDMEP and requiring adherence to BDMEP standards as well as coordination (all good). However, on page 92 discusses a "unified science plan" that appears to indicate greater input/control by the VA science committee, which could potentially be problematic.	Suggest clarifying that while VA supplemental science would be complementary to existing work and hypothesis testing will rely on that work, that neither the VA Governance nor Science Committees have decision authority over the BDMEP.

Page #	Section	Comment	Solution
89-90	4.4.9.7 Supplemental Science and Monitoring	Organizational structure for the VA science committee is mentioned, but like the Science Charter, is somewhat vague.	Suggest including a plan for more meaningful inclusion of NGOs and CA Native Tribes, which have expressed exclusion from the process thus far.
90	4.4.9.7 Harmful Algal Blooms	The HAB monitoring provisions do not include the understanding of the effects of HABs, only the causes, occurrences, and mitigation measures.	Suggest including language on "HAB effects" to what the HAB monitoring program and special studies would be collecting data to understand.
90, 115, A-12	4.4.9.7 and 4.5.1.2 and A.2.2 Harmful Algal Blooms	The current bloom season is typically May to October but there may be blooms outside of this range now and with climate change and shifting dominant species over time the bloom season is predicted to shift. Thus, the suggested monitoring timeframe may not cover all HAB events	Suggest that the timeframe of monitoring cover monitoring during additional bloom timeframes if a bloom outside of the currently defined "bloom season" is identified
90	4.4.9.7 Habitat Suitability Assessments	There is no mention of how often site specific assessments should be done (it just says periodically) to ensure that habitats remain suitable during the duration of the VAs/8 years following construction.	Suggest adding a requirement of when the site specific assessments should be done by tributary, perhaps by number of years post-construction or after major flooding event in a specific tributary, etc.
90	4.4.9.7 Habitat Utilization and Biological Effectiveness Assessments	With regards to "monitoring of habitat restoration projects will be required to follow comparable methods to other HRL projects in the same category and to ongoing and past monitoring of similar restoration projects", monitoring of other HRL projects and the bulk of ongoing monitoring are not always the same, especially for tidal wetlands.	Suggest requiring comparable methods to any ongoing monitoring at the most suitable reference sites (as determined by environmental similarity, e.g., salinity regime) for the HRL habitat restoration projects.
95-96	4.4.9.10 Continuation, Modification, or	Will any additional restoration be required if the VA pathway is continued under a green light scenario? Also, will	Suggest clarification about what would continue and what, if anything, would be added/changed if the VA pathway is continued under a green light scenario.

Page #	Section	Comment	Solution
	Termination of the VA Pathway, Green Light	systems with limited flow commitments have new commitments? Since the VAs were initially proposed for a longer term it seems like more restoration should be required if it is extended.	
109	4.5.1.1 Initial BDMEP, Special Studies for Fish and Wildlife	There is no timeframe identified for completion or start of special study relating to LSJR barriers, salmonid survival and life history diversity	Suggest providing timelines when this study shall be started and/or completed.
115	4.5.1.2 Comprehensive BDMEP, SJRMEP, Comprehensive Reporting	How will a decision be made as to the frequency of reporting (says it will occur every three to five years)?	Suggest providing clarification about how this decision of reporting frequency will be made.
A-1	Appendix A, A.1 Introduction	Vague description of the expansion process for the BDMEP to create a comprehensive BDMEP. The current monitoring activities within the Bay-Delta Region are not adequate to generate systemwide or population level data relevant to evaluate the effectiveness of the narrative objectives. The proposed habitat accounting, habitat utilization, and biological effectiveness monitoring requirements that are intended to inform a system-wide and population level analysis of the effectiveness of HRL actions in meeting the stated objectives of the Bay-Delta Plan. This will not be possible	Suggest including more specificity as to the roles and responsibilities and funding associated with expansion of the BDMEP.

Page #	Section	Comment	Solution
		without a robust investment in bolstering and expanding the existing monitoring programs and frameworks within the BDMEP. More specificity is needed here as to roles and responsibilities and funding associated with expansion of the BDMEP.	
A-2	A.2.1 Required Monitoring Activities	CDFW is not included in the review process with DWR, Reclamation, State Water Board, and Delta Stewardship Council to identify any monitoring gaps generated by discontinuation of the three surveys (Spring Kodiak Trawl, Adult Sturgeon Study, and Adult Striped Bass Study) needed to fulfill the monitoring purposes identified in D-1641, D-1485, and the Bay-Delta Plan.	Suggest including CDFW into the review process.
A-2	A.2.1 Required Monitoring Activities	In Section 4.5.1.1 VA Supplemental Monitoring and Science, it says "The initial BDMEP incorporates the VA supplemental monitoring and science activities defined above in section 4.4.9.7, which are the collective responsibility of VA parties." but it doesn't not say this in Appendix A.	Recommend that this language be incorporated into Appendix A as well to be consistent.
A-2	A.2.2 Monitoring Purposes	Why are HRL monitoring commitments not mentioned in this section?	Suggest adding HRL monitoring commitments or explain why they are not included here.

Page #	Section	Comment	Solution
A-4	A.2.2 Table A-1 Specific Water Quality and Food Web Monitoring Requriements	Some areas with high HAB risk are not monitored. For example, a paper in progress (Preece, et al) will soon show that the south Delta region has historically been one of the areas with the worst HABs in the area. There are few monitoring sites in that area.	Strongly recommend adding HAB monitoring and continuous multi-parameter locations near the Prisoners Point Station (PPT; where the agricultural barriers lead to stagnant conditions and consistently high chlorophyll levels); old river above doughty (ORX; where chlorophyll levels are also consistently high); and in general, adding more data monitoring in the south Delta area.
A-11	Table A-1 Specific Water Quality and Food Web Monitoring Requirements, Footnote 3	At what depth would the continuous multi-parameter instrument be recording?	Suggest including information specifying the monitoring depths requested. It would be helpful to have multiple depths. Suggest a near surface monitoring location and a near bottom of water column measure at least.
A-11, A-25	Table A-1 and Table A-3	While at HAB monitoring locations, HAB effects to fish and wildlife are not being quantified	Recommend adding that observations of deceased or ill fish and/or wildlife in locations with an active HAB should be enumerated and information including their species, length, weight, and location cataloged.
A-24	Table A-2 Required Monitoring Activities, Footnote 2	As applied to the Fish Restoration Program, the work plan changes every year and review by the SWRCB Executive Director would be an entirely new process. It is also not clear if this program is now intended to extend indefinitely, as it was originally intended to sunset after wrap-up of the Fish Restoration Program project completion (i.e. the 8,000+ acres in the CVP/SWP BiOps and ITPs). CDFW does not have the funding to extend this program indefinitely. It is currently funded by DWR.	Recommend clarifying text, that if FRP is to exist indefinitely, then funding needs to be provided by DWR.

Page #	Section	Comment	Solution
A-25	Table A-3 Harmful Algal Blooms, May to October Tiered Monitoring Approach	The threshold for HAB visual index level 2 is evidence of a HAB. It should be monitored as such including the low level chronic HAB toxins that are present within the system. The current approach is aimed at protecting human health but fish and wildlife exposure needs to be quantified as well.	Recommend adding monthly SPATT monitoring to all sites to help quantify the lower level algal toxins present in the system even when ELISA grab samples do not capture them and moving HAB visual index 2 to tier 2: enhanced monitoring.
A-26	A.3.1		
A-27	A.3.2 Data Management and Quality	Inconsistent time frames for providing maintenance and calibration records (and other data quality records) between Section 4.5.1.1 (60 days) and appendix A (30 days)	Recommend changing appendix to 60 days to match Section 4.5.1.1.
A-27	A.3.3 Reporting	Timelines for posting monitoring data to a public website are unrealistic for some types/sources of data. For example, continuously collected data are to be posted real time; this is only feasible for telemetered equipment. Discrete data are required to be posted within 6 months of collection. Particularly for invertebrate ID and enumeration (and some measurements) this is not feasible at current staffing levels. However, this should not be a reason to move to contracted sample processing due to known quality issues.	Recommend replacing hard time frames with as soon as feasible.

Page #	Section	Comment	Solution
B.1	Appendix B.1 General Comment	It is unclear if there are accounting provisions for cases when the CVP and SWP have different operations between the ROD and the ITP.	Suggest that the flow accounting accommodate split conditions if they were to occur.
B.1-11	B.1.4.2 Calculation of Daily HRL Delta Inflow and Outflow	Travel time calculations are expected to vary with flow rate. A fixed-day lag may work for relatively constant flow adjustments, but any abrupt changes in flow have impacts spread out over several days. This simplified assumption, compounded with the simplified salinity calculations may create unrealistic assumptions about the responsiveness of the system.	Suggest validating travel times and compare salinity results using hydraulically routed flow. Also suggest comparing attenuated vs simply lagged flows and the impact to salinity offset accounting.
B.1-17, B.1-23	B.1.4.3 Verification of Increased Delta Outflow, Table B.1-3 and B.1.5.4 Verification of Additive Delta Outflow, Table B.1-5	The relationships developed in Table B.1-3 and Table B.1-5 are subject to change given sea level rise and/or changes in channel bathymetry. These changes may happen gradually, or suddenly such as in in the event of an earthquake.	Suggest including language that these values are a recent snapshot (note the calibration years), and require periodic validation and/or updating.
B.1-41	B.1.9.4 Accounting of Reference Conditions and HRL Flow Commitment, Subsection iii Measurement of Flow Commitment	The text says that Sacramento River HRL participants must use outflow data from Keswick Reservoir or USGS gage 11370500	Suggest choosing one gauge or the other as these two gauges never read the same value. They do not differ by a consistent predictable amount/percentage. Therefore giving water users the choice of using one or the other could result in inaccuracies based on which gauge they are using. Different participants could use baseline calculations on differing gauges, leading to ineffective accounting downstream.
B.2-14	B.2.2 Accounting for Bypass Floodplain Non-	How will fish passage improvement projects or Multi-Benefit projects that include fish passage improvement be	Even if there is not a solution at this time, suggest including some discussion/transparency about the lack of accounting process for fish passage improvements.

Page #	Section	Comment	Solution
	flow Habitat Restoration Actions	'credited' relative to acreage requirements?	

Attachment 3: Chapter 13 Staff Report Focused Comments and Recommendations

PDF Page #	Section	Comment	Solution
65	13.4 Changes in Hyrdology and Water Supply	The labeling of the regulatory pathway as 55 w/WSAs (i.e. 55% of unimpaired flow with watershed-wide water supply adjustments) is misleading. The changes in hydrology and thus the expected benefits of the starting point for the regulatory pathway generally fall between those of the Low Flow Alternative (35 and 45 scenarios) and the 55 scenario that were evaluated in the 2023 draft Staff Report. 55% of unimpaired flow would only occur in approximately 33% of water years.	Suggest a more accurate label for the regulatory pathway such as 45 w/WSAs (i.e. with an adaptive range from 35 – 55%).
67-68	13.4.2.2, Baseline Condition	Baseline is 2024 BiOps, but projects are now operating to Action 5.	If possible, suggest updating the baseline modeling to Action 5. If updating the modeling is infeasible, a narrative section about the changes between the 2024 BiOp and Action 5 including expected changes in exports between the two RODs.
71	13.4.2.4, Voluntary Agreement Pathway	“In the 2024 BiOps condition, exports are higher on average in January through June than the project baseline, and Delta outflow is lower on average in these months..." Since December 2018, the baseline conditions for which the VA flows are additive to has continuously changed (from 2008/09 BiOps to 2019 BiOps to 2024 BiOps) and the resulting Delta Outflows continues to erode.	N/A
129-131	13.4.3.1 Changes in Flows, South of Delta Exports,	Exports would still be expected to increase somewhat relative to baseline under the VA scenario. This	The assumption is that the VA pathway model does not include the I:E requirements that were in the baseline

PDF Page #	Section	Comment	Solution
	Voluntary Agreement Pathway	seems counterintuitive to the narrative objectives of the Plan, Fish and Wildlife beneficial uses, and the commitment to export reduction under the VA pathway.	model, however an explanation in the text would be helpful.
231, 232	Table 13.5-6 Spawning Habitat Results Compared to the HRL Habitat Commitments and the Habitat Required to Support 25 Percent of the Doubling Goal Table 13.5-7 Rearing Habitat (Combined In-Channel and Floodplain) Results Compared to the HRL Habitat Commitments and the Habitat Required to Support 25 Percent of the Doubling Goal	1. The “Committed Acres” and “Acres added by HRL” do not match. 2. Why aren’t winter-run Chinook salmon and late fall-run Chinook salmon evaluated in the table for the Sacramento River spawning/rearing/floodplain habitat? Most early implementation spawning and rearing habitat projects have been designed to support winter-run and impact late fall-run.	1. Please provide an explanation about how this occurs and how it will be reconciled. 2. Please provide an explanation.
317-331	13.7.6.2 Biological Resources, Water Temperature	Sections for individual temperature impacts state "results show that the frequencies of favorable and unfavorable effects under the VA pathway are more similar to baseline	Suggest including this additional text.

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		than under the regulatory pathway". Although frequencies of effects under the VA pathway are similar to baseline, frequencies of unfavorable temperatures are predicted to increase under the VA pathway.	
332	13.7.6.2 Biological Resources, Impact Conclusion	The document notes that the regulatory pathway may result in more frequent calls on Millerton Reservoir by the Exchange Contractors which would potentially draw down the cold water pool for Millerton resulting in unsuitable temperature for salmonids within the SJRRP program area	Consider including a requirement that impacts to the cold water pool at Millerton be mitigated or require the development of a cold water management plan. Or perhaps the inclusion of language similar to the Trinity that does not allow redirected impacts, or a mitigation measure that includes installation of a temperature control device or selective withdrawal at Friant Dam.
339	13.7.6.2 Biological Resources, Interior Delta Flows, Impacts	The documents states “Mitigation Measure MM-AQUA-a,d: 10 includes implementing existing laws to protect and mitigate fisheries impacts from changes in interior Delta flows.” Implementation of existing laws seems like it should be part of the baseline and not considered mitigation.	Update mitigation measures to measures that would not already be occurring due to existing law.
461	Table 13.7.22-1 Mitigation Measures	The document states “Mitigation Measure MM-AQUA-a,d: 1 includes implementing existing laws that protect and mitigate impacts from dams and diversions.” Implementation of existing laws seems like it should be part of baseline not a mitigation measure.	Suggest including mitigation measures that do not rely on implementation of existing laws.