

### CA Save Our Streams Council



April 29, 2019

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Michael Mosley at [mmosley@usbr.gov](mailto:mmosley@usbr.gov)

**RE: Comments on the 2019 Draft Central Valley Project Cost Allocation Study with regard to CVP Water Rate-setting Policy and Capital Repayment.**

Dear Mr. Conant:

The Coordinated Operations Act of 1986 (PL 99-546) requires that outstanding capital repayment obligations of Central Valley Project (CVP) be repaid by 2030. Of this original time frame, only 11 years remain (22% of the original total). In accordance with Public Law 99-546, the repayment period for the relevant CVP water-system facilities ends in 2030. **The proposed USBR CVP cost allocation and rate-setting policy, however, will continue to fail to make sufficient progress toward recovery of Federal investments in the CVP and will likely lead to even greater deficits.**

Per the USBR's 2019 CVP Irrigation water rate schedule A-2Ba, the cumulative capital repayment allocation to Irrigation Contractors is \$1,175,623,988. Of this amount, schedule A-2Ba indicates

that \$529,838,650 remains unpaid (45% of the total amount). As 2030 approaches, continuing underpayment will likely be exacerbated by drought conditions that occur during the upcoming decade. Any defensible cost allocation and repayment schedule needs to address this looming underpayment identified in multiple Inspector General Reports(2004<sup>1</sup> and 2013<sup>2</sup>), along with also addressing the likely impacts of climate change, drought and meeting legally required fish and wildlife mitigation requirements.

One of the major factors compounding the existing under payment problem is the likelihood that the Draft Final Central Valley Project Cost Allocation Study (CAS) will not provide sufficient capital repayment by the Irrigation Contractors to meet the 2030 repayment deadline. Below, significant flaws with the methodologies employed in this Cost Allocation Study are identified. Correcting these flaws is essential in meeting Congressional requirements for repayment by the deadline of 2030.

Our concerns about the Draft Final Central Valley Project Cost Allocation Study (CAS) also include both inadequate study review and documentation, and inadequate transparency and justification of study methods and results. The proposed Cost Allocation approach reduces costs borne by irrigators by dramatically underestimating benefits to irrigators for period 2, as examined further below, and by then averaging the period 1(which already has a deficit) and 2 with equal weight, thus reducing the future costs to irrigators. The manner in which periods 1 and 2 are defined and then combined seems arbitrary and appears to be based on simple operational assumptions designed to yield the desired outcome. This is not how serious and defensible economic analysis is done.

If capital repayment from Irrigation contractors continues to be under collected, capital rates will begin to spike as 2030 approaches. Failing to take corrective action now will likely result in failure to meet Congressionally mandated repayment deadlines, because it will be too late to take corrective action after several more years. The magnitude of underpayment will soon reach a point where three choices are available: set water rates at levels that Irrigation Contractors cannot afford, force power contractors to pay the deficit, or fail to meet the statutory requirement deadline of 2030. Under the provisions of PL 99-546, power contractors and their ratepayers will be on the hook for the shortfall in order to meet the statutory deadline of 2030. Thus, this ballooning deficit

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<sup>1</sup> Office of Inspector General, U.S. Department of the Interior, No. W-IN-BOR-0016-2004, "Central Valley Project Contract Renewal Process," (August 2004). Congress enacted the Coordinated Operations Act of 1986 to address the CVP repayment issues setting a firm deadline of 2030 pursuant to the Coordinated Operations Act of 1986, Pub. L. No. 99-546, 100 Stat. 3050-56 (1986). "We determined that if recent CVP water delivery trends continue, repayment of the capital investment in the CVP irrigation facilities could be short by between \$330 and \$390 million by 2030.." <https://www.doioig.gov/reports/central-valley-project-california-repayment-status-and-payoff> Office of the Inspector General Central Valley Project, California: Repayment Status and Payoff. 2013. pg 6.

<sup>2</sup> <https://www.doioig.gov/reports/central-valley-project-california-repayment-status-and-payoff> Office of the Inspector General Central Valley Project, California: Repayment Status and Payoff. 2013 "We found that USBR's water ratesetting policies do not ensure that an appropriate share of capital costs and prior-year funding deficits are repaid annually. The current CVP ratesetting policies, water projection methods, and contract provisions do not ensure that sufficient revenue is available each year to recover annual operations and maintenance costs and to repay an appropriate share of the remaining Federal investment in the Project."

attributable to irrigators will likely have an unplanned impact on power rates and become an unplanned and unauthorized public subsidy.

Put another way, the broad purpose of the new CAS is to remedy past mistakes and chart a course toward reliably meeting the 2030 deadline. Any costs from Period 1 misallocation being perpetuated or carried forward in the future allocations will only continue the mistakes. If the costs were not appropriately allocated, or errors occurred according to intended, contemporary, or future standards, this is the time to correct that. But, corrections are not being made and, under this proposed approach, the irrigator contractors' debt is being transferred to taxpayers. Requiring the public taxpayers to continue to pay "non-reimbursable" costs for supposed benefits to fish, wildlife, recreation, or other "benefits" that are really nothing more than costs that would not have occurred without the project, is inappropriate and unacceptable.

In short, Reclamation has waited far too long to address the longstanding problem of underpayment by CVP Irrigation Contractors. Further procrastination of this repayment responsibility will magnify the problem. Unless a pro-rated share of each Irrigation Contractor's outstanding capital balance is collected from 2020 through 2030, capital rates will balloon the public subsidies to irrigators. The time to implement fair and effective change is past due.

To assist Reclamation with its effort to improve the CVP Cost Allocation, below we have included further, more detailed comments on specific aspects of the 2019 Draft CAS. In providing these comments, however, it's important to note that the short timeframe, lack of transparency, and missing documentation of some supporting data and methods has prevented what we would consider to be a thorough review.

## Deficiencies in Review and Documentation for the Cost Allocation Study

Any legitimate economic study by a government agency, especially with high public impact, should be peer reviewed to confirm the study or lead to necessary corrections. An independent party should be able to reproduce the underlying allocations calculations from the start to finish and also understand and render judgment on how well the study addresses its goals. This Draft Final CVP CAS should be no different and such peer review must be done.

The documentation deficiencies pertain to the lack of disclosure and publication of all supporting information. Reclamation should publicly disclose, in particular, two types of supplemental data used to calculate the results of the Draft Final CVP CAS:

1. Background calculations used to derive estimated costs and benefits for each project purpose.
2. The assumptions behind the input data within each calculation.

The calculated project benefit totals for several components of the water supply cost allocation, as further discussed below for irrigators, have significant flaws.

In addition to providing all data and information necessary for conducting a full technical review, Reclamation should seek out, fund, and disclose a complete and independent peer review. The

underlying models and assumptions used for the cost allocations are remarkably obscure and extremely difficult for the public to understand. The Cost Allocation Study deviates significantly from the beneficiary pays principle embedded in Reclamation law and policy. Without an independent and expert peer review, the public cannot fully judge the validity of the Draft CAS.

## Cost Allocation Model Yields Preferential Benefits to Irrigators

The Draft CAS reduces costs borne by irrigators by not correcting accumulated deficits during period 1, underestimating benefits to irrigators for period 2 (and thus underestimating their repayment responsibility), as examined further below, and by then averaging the period 1 and 2 with equal weight, thus reducing the future costs to irrigators. Costs are also decreased for Commercial Power, but increased for M&I and Non-reimbursable (taxpayer) components. The manner in which periods 1 and 2 are defined and then combined is arbitrary and appears to be a simple operational assumption designed to yield the desired outcome.

### *Issues Specific to Period 2*

The Economic Benefits Analysis Appendix (EBAA) to the Draft Final CVP CAS includes very inconsistent Irrigation Benefits data for Period 2. There are several significant concerns pertaining to the Irrigation Benefits calculations used for Period 2, most of which reduce the financial burden on irrigators by underestimating their benefits.

The Irrigation Benefits analysis revolves around a comparison of the incremental agricultural benefits attributed to CVP water supply. This comparison is drawn through separate estimates of agricultural production values under two scenarios: (1) with-CVP surface water supplies and (2) without-CVP surface water supplies. The differences between these two scenarios will be referenced going forward as the Differential. There are at least three significant issues pertaining to the EBAA methodology used to calculate these Differentials.

#### **Issue 1: Inconsistent Differentials between Surface Water Deliveries and Acreage, Production Value, and Net Revenues**

The EBAA includes data from the three following tables, which provide the EBAA's take on gross production values (gross revenues), net revenues (profits), and irrigated acres under these two scenarios. Under the financial and acreage totals for each table, a second table calculates the incremental with-CVP values as a percentage of the with-CVP total.

**Economic Benefits Analysis Table 2-3C. Irrigated Acres, by Water Type, Summary (Acres)**

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	6,933,078	6,933,078	6,933,080	6,918,033	6,870,808	6,920,845
Without-CVP	6,120,784	6,224,034	6,325,339	6,409,911	6,615,852	6,309,136
Difference	812,294	709,044	607,741	508,122	254,956	611,709

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Without-CVP	88.3%	89.8%	91.2%	92.7%	96.3%	91.2%
Difference	11.7%	10.2%	8.8%	7.3%	3.7%	8.8%

**Economic Benefits Analysis Table 2-4C. Agricultural Production Values, by Water Year Type, (\$)**

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	25,737,744,738	25,740,040,208	25,739,283,492	25,707,650,641	25,599,798,679	25,711,991,067
Without-CVP	23,541,165,754	24,097,132,729	24,516,054,251	24,880,178,636	25,193,038,114	24,338,989,487
Difference	2,196,578,984	1,642,907,479	1,223,229,241	827,472,005	406,760,565	1,373,001,580

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Without-CVP	91.5%	93.6%	95.2%	96.8%	98.4%	94.7%
Difference	8.5%	6.4%	4.8%	3.2%	1.6%	5.3%

**Economic Benefits Analysis Table 2-5C. Agricultural Net Revenue, by Water Year Type, (\$)**

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	6,804,051,297	6,804,578,903	6,804,032,747	6,790,796,345	6,755,523,737	6,794,239,370
Without-CVP	5,986,641,460	6,217,583,639	6,369,793,159	6,514,279,497	6,602,832,917	6,297,607,641
Difference	817,409,837	586,995,264	434,239,588	276,516,848	152,690,820	496,631,729

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Without-CVP	88.0%	91.4%	93.6%	95.9%	97.7%	92.7%
Difference	12.0%	8.6%	6.4%	4.1%	2.3%	7.3%

Within these three EBAA tables, there is a close relationship between projected benefits with-CVP and without-CVP. The table below summarizes the calculated differences between with-CVP and

without-CVP as percentages for Irrigated Acres, Agricultural Production Values (Gross Revenues), and Agricultural Net Revenues (Net Income).

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
Acreage	11.7%	10.2%	8.8%	7.3%	3.7%	8.8%
Production Value	8.5%	6.4%	4.8%	3.2%	1.6%	5.3%
Net Revenue	12.0%	8.6%	6.4%	4.1%	2.3%	7.3%

In this table, the percentage relationships under different water scenarios are very similar. The relationship between Acreage and Net Revenue under different water supply scenarios is particularly close.

However, the variance between the with-CVP and without-CVP scenarios for incremental surface water usage is not consistent with the variances in Irrigated Acreage, Gross Economic Benefit, and Net Revenues. EBAA data is provided in the table below.

**EBAA Table 2-6C. Agricultural Water Use, by Source and Water Year Type, Summary (AF)**

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
Surface Water						
With-CVP	14,629,640	14,102,589	13,754,662	13,163,357	11,999,000	13,687,948
Without-CVP	11,827,810	11,575,908	11,468,196	11,186,185	10,711,728	11,421,574
Difference	2,801,830	2,526,681	2,286,466	1,977,172	1,287,272	2,266,374
Groundwater						
With-CVP	6,816,781	7,351,101	7,691,034	8,205,010	9,223,235	7,710,807
Without-CVP	6,878,441	7,424,578	7,771,194	8,278,480	9,246,689	7,774,876
Difference	-61,660	-73,477	-80,160	-73,470	-23,454	-64,069

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
Surface Water						
With-CVP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Without-CVP	80.8%	82.1%	83.4%	85.0%	89.3%	83.4%
Difference	19.2%	17.9%	16.6%	15.0%	10.7%	16.6%
Groundwater						
With-CVP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Without-CVP	100.9%	101.0%	101.0%	100.9%	100.3%	100.8%
Difference	-0.9%	-1.0%	-1.0%	-0.9%	-0.3%	-0.8%

One discrepancy within this data is visible through comparing the incremental differences in Surface Water under the with-CVP and without-CVP scenarios to the calculated EBAA benefits under the two scenarios. The following table provides the percentage differences under the two water delivery scenarios for Net Revenues (Income) and Surface Water Usage.

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
Difference: Net Revenues	12.0%	8.6%	6.4%	4.1%	2.3%	7.3%
Difference: Surface Water Usage	19.2%	17.9%	16.6%	15.0%	10.7%	16.6%

The weighted average variation in surface water between the with-CVP and without-CVP scenarios is more than twice the variance in net income between the two scenarios. This variance is substantial and there is no explanation. Differences in revenues or irrigated acreage between the two alternatives are not credibly explained. The differences between irrigated acres and gross economic values (revenues) have already been shown to be highly correlated to Net Revenues (Income).

Water is an essential ingredient in agriculture, and in the CVP service area water supply is the limiting factor that caps the maximum amount of crops that may be grown. As such, differences in water supply, such as between with-CVP and without-CVP water supply, should be highly-correlated to differences in Net Revenues. However, the EBAA fails to reflect this expected relationship.

The impact of the divergence between Net Revenues and Surface water has a significant impact on the calculated values for Irrigation Benefits, and thus cost allocation. The amount of the variance can be estimated by applying the ratio of the Surface Water Usage Differential between with-CVP and without-CVP to the same Differential for Net Revenues. Dividing the incremental difference in Surface Water Usage by Net Revenues results in a Differential of approximately 2.274 (16.6% / 7.3%). Applying this Differential may be used to derive an estimated Irrigation Net Benefits total where incremental Net Revenues matched incremental Surface Water usage. This calculated estimate is provided in the table below.

Differential: with-CVP versus without-CVP	
EBAA Calculated Benefits	\$496,631,729
Differential	2.274
EBAA Calculated Benefits based on incremental % to Surface Water	\$1,129,340,552

As this revised EBAA is based on an interpolation to resolve the with-CVP and without-CVP variances between surface water deliveries and net revenues, the revised total of \$1,129,340,552 should only be used for benchmark comparison purposes. If the remaining factors in the study were valid, the revised benefits number of approximately \$1.13 billion is approximately the amount that would be expected if the Net Revenue matched the Surface Water Differential—and is about \$60 million higher than the Allocation Study value of \$1.07 billion in Table ES-2.

If the EBAA study authors are presenting benefits calculation data in which the net revenues Differential varies this substantially from the incremental surface water differentials, a detailed explanation is needed to justify this variance. Absent a credible explanation, the variance in Net Revenues needs to be corrected to more closely reflect the variance in Surface Water Deliveries. If this discrepancy is not corrected, then Irrigators will not be charged their fair share of costs.

Water supplies are the driver behind irrigated acreage, gross economic production (revenue) and net revenues (profit), not the other way around. Accordingly, the net variance in surface water should be the driver behind net variances in acreage, revenue, and profit.

**Issue 2: "Without-CVP" Surface Water Deliveries Appear to be Substantially Over-Stated**

While the degree of the variance between the with-CVP and without-CVP Differentials for surface water and net revenues is significant (Issue 1, above), there is a much more substantial flaw in the with-CVP and without-CVP surface water analysis: the without-CVP surface water projections in the EBAA are much too high.

EBAA table 2-6C summarizes agricultural use data that is used in the CAS. The surface water portion of this data is provided below.

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	14,629,640	14,102,589	13,754,662	13,163,357	11,999,000	13,687,948
Without-CVP	11,827,810	11,575,908	11,468,196	11,186,185	10,711,728	11,421,574
Difference	2,801,830	2,526,681	2,286,466	1,977,172	1,287,272	2,266,374

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Without-CVP	80.8%	82.1%	83.4%	85.0%	89.3%	83.4%
Difference	19.2%	17.9%	16.6%	15.0%	10.7%	16.6%

The assumption that approximately 5/6 of surface water supplies available for CVP Contractors comes from non-CVP surface water sources is grossly unrealistic. Both the annual CVP Irrigation water supply usage and the percentage share of with-CVP to without-CVP shares are substantially flawed:

- Annual Irrigation water usage by CVP Contractors is substantially higher than the weighted average referenced in the EBAA. Annual usage data is available in CVP Irrigation water rate books.
- It is unclear how many (or how few) CVP Irrigation Contractors also have State Water Project water contracts for use in agriculture..
- Through what alternative surface water storage projects are CVP Irrigation Contractors receiving alternative surface water supplies? Is the weighted average annual quantity of water from these facilities enough to comprise five times the surface water deliveries that CVP Irrigation Contractors are receiving from CVP facilities?

Between Settlement, Exchange, Water Service, and other CVP water contracts, annual water contracts for CVP Irrigation Contractors exceeds 10 million acre-feet per year. Are there alternative surface water supply sources for CVP irrigation contractors that supply an additional 50 million acre-feet of contract amounts?

More realistically, surface deliveries from the CVP account for at least 4/6 of sum total surface water deliveries that CVP Irrigation Contractors receive from all surface water sources.



If non-CVP deliveries were revised in EBAA calculations to reflect 33.3% of total surface deliveries, the impact on calculated Irrigation Benefits would be substantial. A benchmark approximation for a revised total Irrigation benefit calculation is available through the calculations below.

EBAA Data: Net Annual Benefits per Acre-Foot (AF) of Incremental with-CVP Surface Water

EBAA Data: Net Annual Benefit for Irrigation Contractors	\$496,631,729
EBAA Data: Differential with-CVP Acre-feet	2,265,474
Net Annual Benefits for Irrigation Contractors per AF	\$219.21

Differential AF if 2/3 of total with-CVP surface water is delivered through CVP water contracts.

Wtd. Avg. total Surface Water AF: with-CVP (source: EBAA Table 2-6C)	13,687,048
Percentage of Total Deliveries from CVP facilities	66.7%
Wtd. Avg. total Surface Water AF from CVP facilities	9,129,261

Pro-rated projected Net Annual Benefits for Irrigation Contractors if 2/3 of with-CVP water is derived from CVP water contracts:

Wtd. Avg. total Surface Water AF from CVP facilities	9,129,261
Net Annual Benefits for Irrigation Contractor per AF	\$219.21
Net Annual Benefits for Irrigation Contractors at 66.7% Differential	\$2,001,225,304

This revised annual benefits calculation is also interpolated, and is also intended as a benchmark for evaluating a more accurate benefits calculation. However, as this benefits calculation much more accurately reflects the true Differential in with-CVP surface water versus without-CVP surface water acre-feet, this revised benefits estimate probably more accurately reflect real-world data than the current irrigation benefits value assigned in the Draft Final CVP CAS.

The irrigation-benefits calculation flaw, through under-reporting the Differential with-CVP surface water acre-feet, may be further compounded by the separate issue of under-reporting the net revenue per acre-foot of water. Therefore, an accurate revised calculation of irrigation benefits would need to multiply the updated benefits calculation from the issue 2 evaluation by the multiplier derived from issue 1:

Net Annual Benefits for Irrigation Contractors at 66.7% Differential	\$2,001,225,304
Differential	2.274
Updated Net Annual Benefits Calculation	\$4,550,786,341

This updated estimate of annual benefits to irrigators of about \$4.55 billion is more than 4 times the estimated annual benefits in Table ES-2, and thus would more than quadruple the share of costs to irrigators.

### **Issue 3: Under-reporting of Differential with-CVP groundwater usage**

EBAA data within Table 2-6C includes projections for with-CVP and without-CVP ground water pumping levels.

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	6,816,781	7,351,101	7,691,034	8,205,010	9,223,235	7,710,807
Without-CVP	6,878,441	7,424,578	7,771,194	8,278,480	9,246,689	7,774,876
Difference	-61,660	-73,477	-80,160	-73,470	-23,454	-64,069

Scenario	Wet	Above Normal	Below Normal	Dry	Critical	Wtd. Avg.
With-CVP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Without-CVP	100.9%	101.0%	101.0%	100.9%	100.3%	100.8%
Difference	-0.9%	-1.0%	-1.0%	-0.9%	-0.3%	-0.8%

The without-CVP delivery data appears to be unrealistically low. Total with-CVP deliveries for almost all CVP Irrigation water contractors are comprised primary of two sources: CVP water delivery contracts and ground water. There is no other significant substitute water supply alternative in the absence of CVP water supplies. The idea that the availability of CVP surface water only decreases groundwater usage by less than 1% is not credible. Ground water pumping dramatically increases as surface water availability decreases, and vice-versa. The size of the Differential would be much more pronounced during Wet and Above Normal years, and the Differential would be much smaller during Dry and Critical years.

Monthly water use data collected by the State of California includes ground water and surface water usage for CVP water agencies. This data needs to be evaluated versus the EBAA projections to determine whether the Differential is accurate. A conservative weighted average Differential percentage might be 15%. The irrigation benefits through reduced groundwater costs may also be interpolated through data available in the EBAA. This interpolation is useful in providing a benchmark for projected changes to benefits if all other variables in the allocation process are unchanged.

Wtd. Avg. Groundwater Pumping Cost (Source: EBAA table 2-8)	-\$4,372,255
Wtd. Average Projected Groundwater Pumping AF Decrease (Source: EBAA Table 2-6C)	-64,069
Ground water Pumping Cost Savings per acre-foot	\$68.24

Wtd. Avg. Groundwater Pumping Usage without-CVP (Source: EBAA Table 2-6C)	7,774,876
Updated Projected Wtd. Avg Groundwater Pumping Usage with-CVP	6,608,645
Updated Variance in groundwater usage (based on 15% decrease in usage)	1,166,231

Updated Projected Wtd. Avg. Ground water pumping AF decrease through with-CVP	1,166,231
Ground Pumping Cost Savings per acre-foot	\$68.24
Updated Irrigation project benefits from decreased Projected Groundwater pumping	\$79,583,603

An update to Groundwater savings would be independent of revisions to the relationship between Net Revenues and Surface Water and corrections to the with-CVP versus without-CVP surface water delivery Differential. Any increase to irrigation benefits through increased savings from reduced groundwater pumping would be independent of and in addition to other necessary irrigation

benefits revisions, which were described above in issues 1 and 2, and thus would correspondingly increase the costs to irrigators.

## Additional Economic-Analysis Issues

Given the brief review period for the Draft CAS and the sparse documentation, we have not fully evaluated the following additional issues, but they are a sampling of what can and should be resolved through independent peer review and subsequent revisions:

1. The CAS would, once again, institutionalize subsidies by inappropriately taking costs off the table from the outset. Costs incurred that would not have occurred without the CVP, such as the highway/bridge works associated with New Melones (see page 21 of CAS). It is inappropriate to simply assign those to the taxpayers without more careful with-without analysis. Would the highway/bridge works have been undertaken by the taxpayer if the CVP/New Melones were not built? What Reclamation has done appears to be “before-and-after” analysis, which is inappropriate.
2. A basic economic principle is to allocate costs on the basis of marginal costing versus average costing. If certain water/power uses receive a disproportionate share of the benefits but the costs are allocated according to “averages”, those uses are being subsidized.
3. Presumably, the water users want the CAS because they want the outcome to shift even more of the CVP costs to the taxpayers—whether or not that is appropriate. The taxpayers are not being adequately represented in a process of political expediency and direct negotiations with the financial beneficiaries of water/power subsidies. Allocating costs that have already been arbitrarily reduced by hundreds of millions of dollars is perpetuation of failed economic analyses. Even if the subsequent allocation is fair, the allocation is arbitrarily putting on the voiceless taxpayers hundreds of millions of dollars and in the process: (a) continuing subsidies, (b) leading to inefficient national allocation of resources, and (c) understating the value of every affected resource outside of the CVP.
4. With respect to specific cost categories on page 20 (the individual and cumulative effect is to assign the associated costs as non-reimbursable):
  - a. Land and Land Rights: This notion chooses to ignore the opportunity cost of capital used for land acquisition purposes. Considering the many years between land acquisitions for projects, the effect of this notion is to undervalue public services like education, health care, and other taxpayer-supported programs.
  - b. Reimbursable Interest During Construction: The concept of accounting for Interest During Construction is an appropriate use of economic principles by recognizing that the taxpayers have other beneficial uses for that capital during the often very long time between project initiation and completion. To arbitrarily remove that treatment for selected projects (e.g., because the project is now owned by some other agency) understates the actual cost of the project and undervalues the other taxpayer programs that don't receive the funding tied up in construction accounts.

- c. Other Costs Excluded: Why these? Should the taxpayers pay for software costs necessary to manage the project? This is not guided by economic principles.
  - d. Transferred Title Facilities: from a cost allocation standpoint, it doesn't matter that the USFWS now owns the fish hatchery. If any fish hatchery was required to repair damages, costs were caused by the CVP, and the damages should be included in the cost of the water/energy provided. The fact that the USFWS is funded by the taxpayers reflects a public policy decision that the taxpayers want the services USFWS provides, but that does not include using the USFWS as a tool to subsidize water/power customers.
5. Similarly, on page 21: costs allocated on the basis of political directive or negotiations only between BOR and parties that would otherwise have to pay (water/power users) is not based on economic principles. The basis should NOT be administrative convenience.
  6. "Direct Assigned Costs" (pages 20-22)—at \$245 million—suffer from the same problems. If economic principles matter, BOR should advise Congress, the public, and other agencies that these costs are in fact project costs incurred solely because of the CVP and the associated subsidy is to benefit the water/power users. The integrity of economic principles means that these costs should also be explicitly declared as subsidies to water/power users (gifts—or corporate welfare subsidies). Otherwise, an economic analysis should explicitly consider how the taxpayers of New Jersey should contribute to the cost of repairing the American River Pumping Station (page 22) or the taxpayers of Kentucky should contribute toward \$32 million of dam safety work for the benefit of water/power users.
  7. Costs not allocated (page 24). This is a long term CAS, not limited to what is here and now. If the same reasoning is used for these upcoming costs, subsidies will continue to benefit water/power users. If subsidies are to be given, they should be explicitly calculated and published for Congress and the taxpayers to decide whether that is what they want. It should not be masked in the same faulty reasoning—especially the CVPIA Facilities.
  8. Section 4.2: The SCRB Methodology discussion. On the surface the "steps" in the methodology appear rational. But, steps 6-9 create the greatest opportunity for problems. Actual costs, separable costs, and "justifiable costs" are 3 different things. It is true that "joint costs" have to be allocated somehow. But the costs to repair the damages caused by a project belong solely to the purposes for which the project was built, not a cost category unto themselves—and to be shifted to people with no voice in the discussion—the taxpayers.
  9. Page 34: Discount Rate: in order to be economically efficient and equitable, the discount rate should reflect the opportunity cost to those people who are providing the money: the taxpayers of the entire U.S. Ask the taxpayers what their opportunity cost is for a project in far-off California, who have to pay mortgages, credit cards, car loans, student loans, etc. NONE of those people are paying 3.25% for any of these loans. The presentation ducks the economic efficiency and equity discussion by suggesting that rules they wrote require them to use 3.25%.
  10. Pages 34-35: Authorized purposes: This brings up a long-standing issue—When do fish and wildlife reparations become "enhancements"? Ditto "recreation" without accounting for recreation opportunity costs?

11. Page 38: Flood control. What is, or where is, the benefit analysis to show how the taxpayers benefit from the flood control instead of project users? Such an analysis would guide the allocation of the costs, not a “rule” arbitrarily assigning costs to potential non-existent **public** flood control benefits.

## Conclusion

The available time within which to provide comments regarding the Draft Final CVP CAS and its appendices was not sufficient to provide for a comprehensive in-depth evaluation. Nonetheless, several notable inconsistencies were identified within the Water Supply sub-allocations. The impacts of these inconsistencies on the results of the CAS are substantial.

The common thread among each inconsistency was to decrease the share of allocated cost to the water supply project purpose. Irrigation water users were the specific beneficiaries of three major issues identified and evaluated.

The with-CVP and without-CVP Differential data should be reviewed against actual monthly water data that is collected by the State of California. One of the most egregious flaws in the study is the imputed presence of a significant source of non-CVP surface water for CVP Irrigation Contractors. What is this alternative water source and what are the potential impacts of using it?

The identified inconsistencies used in deriving the water supply project purpose benefits are only part of what needs to be addressed before Draft Final CAS is finalized. The Draft CAS requires detailed and independent peer review. Public disclosure of this Draft Final CVP CAS should be subject to the statutory requirements of NEPA and CEQA. Once this information has been publicly disclosed, the Bureau of Reclamation should provide another public review period. This review period should not commence until at least 90 days after the public disclosure of supplemental background calculations and input assumptions.

Thank you for the opportunity to comment.



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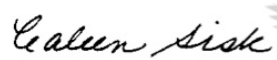
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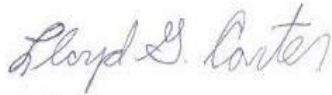
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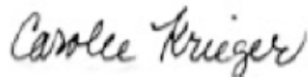


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