APPENDIX F

Recreation Analysis Supporting Data

Recreation Modeling Report

CONTENTS

TABLES

ACRONYMS

cfs	cubic feet per second
CVP	Central Valley Project
District	El Dorado Irrigation District
HEC-ResSim	Hydrologic Engineering Center Reservoir System Simulation
Permit 21112	Water Right Permit 21112
SMUD	Sacramento Municipal Utility District
South Fork	South Fork of the American River
SWP	State Water Project
USGS	U.S. Geological Survey

RECREATION MODELING

OPERATING CONDITIONS

The following describes hydrologic modeling results for reservoirs, rivers, and whitewater boating on the South Fork of the American River (South Fork). Because the timing for implementing potential construction-related improvements to allow for the diversion of Water Right Permit 21112 (Permit 21112) water at up to 156 cubic feet per second (cfs) is unknown, two operational regimes for the diversion of Permit 21112 water at the El Dorado Diversion Dam are considered under the proposed Project: existing infrastructure operations and post-construction operations. Both operational regimes were considered in hydrologic modeling and results for both regimes are provided. The following explains each of the operational regimes:

- Existing infrastructure operations: This operational regime involves the operation of existing facilities with their existing operational capacities to divert Permit 21112 water (i.e., prior to construction of the improvements necessary to divert at the maximum rate of diversion of 156 cfs currently authorized under Permit 21112). This operational regime limits the maximum rate of diversion of Permit 21112 water to 120 cfs, with up to 80 cfs conveyed to Jenkinson Lake and up to 40 cfs conveyed to the Reservoir 1 Water Treatment Plant.

- Post-construction operations: This operational regime involves operation of facilities to divert Permit 21112 water following construction of the improvements to the El Dorado Canal between the El Dorado Diversion Dam and the Hazel Creek Tunnel inlet and the channel that conveys water from the outfall of the Hazel Creek Tunnel to Jenkinson Lake that would allow for a maximum rate of diversion and re-diversion of up to 156 cfs at the El Dorado Diversion Dam.

RESERVOIRS

The Hydrologic Engineering Center Reservoir System Simulation (HEC-ResSim) computer model was used to perform an hourly analysis of the Project's potential effects on flows in the American River basin upstream of Folsom Reservoir. Hydrologic modeling was conducted for the Project to determine potential changes to reservoirs that could be affected by the Project due to their location on the South Fork or their interconnectedness to operation of reservoirs on the South Fork. These reservoirs included six reservoirs managed by El Dorado Irrigation District (District) (Jenkinson Lake, Forebay Reservoir, Echo Lake, Silver Lake, Caples Lake, and Lake Aloha) and five reservoirs managed by Sacramento Municipal Utility District (SMUD) (Slab Creek Reservoir, Chili Bar Reservoir, Union Valley Reservoir, Ice House Reservoir, and Loon Lake).

HEC-ResSim hydrologic modeling results for water years 1975 through 2021 were used to determine potential changes to end of month reservoir elevations in feet. For all reservoirs, changes to the average, maximum, and minimum end of month reservoir elevation were reviewed for all water years combined. In addition, changes in end of month reservoir elevation for each month of each water year in the data set were also reviewed to identify trends in changes by month, water year type, and magnitude. All hydrologic modeling included four scenarios (baseline, project, future baseline, future project) and at least two comparisons between scenarios: baseline versus project and future baseline versus future project conditions.

DISTRICT RESERVOIRS

JENKINSON LAKE

Existing Infrastructure

Jenkinson Lake modeling results show that this reservoir would have the most changes in reservoir elevation of all the District reservoirs with an increase in end of month reservoir elevation. Combining all water year types, the modeling results show an increase in the end of month reservoir elevation in every month of the year under baseline versus project conditions. The increase in minimum end of month reservoir elevation would be at least 20 feet and up to 41 feet (Table 1). Though the maximum end of month reservoir elevation would not change, the average end of month reservoir elevation would also increase in every month of the year by between 6 and 10 feet (Table 1). Under future baseline versus future project conditions, minimum and average end of month reservoir elevations would increase even more at Jenkinson Lake. As shown in Table 2, the minimum end of month reservoir elevation would increase by at least 51 feet and up to 81 feet under future baseline versus future project conditions. The average end of month reservoir elevation would also increase under future baseline versus future project conditions by at least 14 feet and up to 19 feet, almost doubling the increases under baseline versus project conditions (Table 2).

Table 1. Changes in Jenkinson Lake End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	34	39	41	39	38	20	22	27	30	33	34	31
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	6	7	8	8	10	8	9	8	7	6	6	6

Table 2. Changes in Jenkinson Lake End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	60	54	57	77	75	51	57	64	68	81	71	69
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	17	17	18	18	19	17	16	14	14	16	17	18

Jenkinson Lake modeling results by year show increases in end of month reservoir elevation in at least one year of every water year type. 32 of 47 modeled years would have at least one month (generally 4 to 12 months) of change to the end of month reservoir elevation under baseline versus project conditions. Increases in end of month reservoir elevation under these conditions would vary from one foot to 47 feet. Under future baseline versus future project conditions, 41 of 47 modeled years would have at least one month of change to the end of month reservoir elevation. Increases in end of month reservoir elevation under future baseline versus future project conditions would range from one foot to 100 feet.

Post-Construction Operations

Combining all water year types, the modeling results show an increase in the end of month reservoir elevation in every month of the year under baseline versus project conditions. The increase in minimum end of month

reservoir elevation would be at least 20 feet and up to 45 feet (Table 3). Though the maximum end of month reservoir elevation would not change, the average end of month reservoir elevation would also increase in every month of the year by between 6 and 11 feet (Table 3). Under future baseline versus future project conditions, minimum and average end of month reservoir elevations would increase even more at Jenkinson Lake. As shown in Table 4, the minimum end of month reservoir elevation would increase by at least 51 feet and up to 85 feet under future baseline versus future project conditions. The average end of month reservoir elevation would also increase under future baseline versus future project conditions by at least 14 feet and up to 20 feet, almost doubling the increases under baseline versus project conditions (Table 4). The maximum end of month reservoir elevation would increase by one foot in November under future baseline versus future project conditions (Table 4).

Jenkinson Lake modeling results by year show increases in end of month reservoir elevation in at least one year of every water year type. 32 of 47 modeled years would have at least one month (generally 4 to 12 months) of change to the end of month reservoir elevation under baseline versus project conditions. Increases in end of month reservoir elevation under these conditions would vary from one foot to 48 feet. Under future baseline versus future project conditions, 41 of 47 modeled years would have at least one month of change to the end of month reservoir elevation. Increases in end of month reservoir elevation under future baseline versus future project conditions would range from one foot to 103 feet.

Table 3. Changes in Jenkinson Lake End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Post-Construction Operations (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	38	43	45	40	40	20	27	32	33	36	37	34
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	6	8	8	8	11	10	9	8	8	6	6	6

Table 4. Changes in Jenkinson Lake End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Post-Construction Operations (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	66	60	62	77	75	51	63	69	72	85	76	74
Maximum	0	1	0	0	0	0	0	0	0	0	0	0
Average	18	18	18	18	20	19	17	15	14	16	18	18

FOREBAY RESERVOIR

Existing Infrastructure

Modeling results for Forebay Reservoir show minimal changes in end of month reservoir elevation. With all water year types combined, modeling for baseline versus project conditions shows there would be a 15 foot increase in minimum end of month reservoir elevation in August (Table 5). In future baseline versus future project conditions, there would a one foot decrease in minimum end of month reservoir elevation in January and a five foot decrease in August, as well as a one foot decrease in average end of month reservoir elevation (Table 6). Modeling results by year for baseline versus project conditions show a change in end of month reservoir elevation for at least one month in 11 of 14 modeled critically dry years; there were also changes to at least one month in two below normal years and one dry year. Generally, changes showed an up to two foot decrease in

end of month reservoir elevation in January and/or February, and an increase in the summer (June, July, and/or August) of one to 16 feet. In future baseline versus future project conditions, generally changes to end of month reservoir elevation included up to two foot decreases in December through February, an increase of one to three feet in June, and a decrease in August up to 12 feet.

Table 5. Changes in Forebay Reservoir End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	0	0	0	0	15	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

Table 6. Changes in Forebay Reservoir End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	-1	0	0	0	0	0	0	-5	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	-1	0	0	0	0	0	0	0	0

Post-Construction Operations

Modeling results for Forebay Reservoir show very small changes in end of month reservoir elevation. With all water year types combined, modeling for baseline versus project conditions shows there would be a four foot decrease in minimum end of month reservoir elevation in April and a 15 foot increase in August (Table 7). There would also be a one foot decrease in the average end of month reservoir elevation in December in January (Table 7). In future baseline versus future project conditions, there would a one foot decrease in minimum end of month reservoir elevation in January through March, a four foot decrease in April, and a five foot decrease in August. There would also be a one foot decrease in the average end of month reservoir elevation in January and February (Table 8). Modeling results by year for baseline versus project conditions show a change in end of month reservoir elevation for at least one month in 13 of 14 modeled critically dry years; there were also changes to at least one month in three below normal years and two dry years. Generally, changes showed an up to two foot decrease in end of month reservoir elevation in January through March, a four foot decrease in April, and an increase in the summer (June, July, and/or August) of one to 16 feet. In future baseline versus future project conditions, generally changes to end of month reservoir elevation included up to two foot decreases in December through March, a four foot decrease in April, an increase of one to three feet in June, and a decrease in August up to 12 feet.

Table 7. Changes in Forebay Reservoir End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Post-Construction Operations (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	-4	0	0	0	15	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	-1	-1	0	0	0	0	0	0	0	0

Table 8. Changes in Forebay Reservoir End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Post-Construction Operations (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	-1	-1	-1	-4	0	0	0	-5	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	-1	-1	0	0	0	0	0	0	0

ECHO LAKE, SILVER LAKE, CAPLES LAKE, AND LAKE ALOHA

Existing Infrastructure and Post-Construction Operations

Combining all water year types, the modeling results for Echo Lake, Silver Lake, Caples Lake and Lake Aloha under both existing infrastructure and post-construction operating conditions do not show changes to the minimum, maximum, or average end of month reservoir elevation at any of these lakes as demonstrated in Table 9 and Table 10 below. Modeling results by year under both existing infrastructure and post-construction operating conditions also show no changes to the end of month reservoir elevations for Echo Lake, Silver Lake, Caples Lake, and Lake Aloha under either baseline versus project or future baseline versus future project conditions.

Table 9. Changes in Minimum, Maximum and Average End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Existing Infrastructure (All Water Year Types Combined).

Reservoir	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Echo Lake	0	0	0	0	0	0	0	0	0	0	0	0
Silver Lake	0	0	0	0	0	0	0	0	0	0	0	0
Caples Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lake Aloha	0	0	0	0	0	0	0	0	0	0	0	0

Table 10. Changes in Minimum, Maximum and Average End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Existing Infrastructure and Post-Construction Operations (All Water Year Types Combined).

Reservoir	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Echo Lake	0	0	0	0	0	0	0	0	0	0	0	0
Silver Lake	0	0	0	0	0	0	0	0	0	0	0	0
Caples Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lake Aloha	0	0	0	0	0	0	0	0	0	0	0	0

SMUD RESERVOIRS

During hydrologic model development, the District and SMUD discussed modeling of the SMUD system. Though SMUD can release water from Union Valley Reservoir, Ice House Reservoir, or Loon Lake to augment flows in the South Fork, it was determined that for Project hydrologic modeling, Union Valley Reservoir would be the source of additional water in modeling if additional flow was needed in the South Fork to meet required recreation flow releases out of Chili Bar Reservoir. Therefore, as indicated below, there would be no changes to Ice House Reservoir and Loon Lake, but small changes to Union Valley Reservoir elevation levels.

For water to reach the South Fork from Union Valley Reservoir, the water would pass through many SMUD facilities, including Junction Reservoir and Camino Reservoir. Both of these reservoirs are operated to generally remain at the same reservoir elevation and pass through water. Therefore, moving water from Union Valley Reservoir through these two reservoirs to get to the South Fork would not result in any changes to the operation of these reservoirs, including the elevation of the reservoirs.

SLAB CREEK RESERVOIR

Existing Infrastructure Operations

Modeling results show almost no change in reservoir end of month elevation at Slab Creek Reservoir under existing infrastructure operating conditions. Combining all water year types, modeling for baseline versus project conditions shows there would be a one foot increase in the minimum end of month reservoir elevation in May (Table 11). Modeling does not show any changes to maximum or average end of month reservoir elevations under baseline versus project conditions (Table 11). As shown in Table 12, modeling shows no change in Slab Creek Reservoir end of month elevation (minimum, maximum or average) under future baseline versus future project conditions. Modeling results by year show only 6 of 564 modeled months would have a change in end of month reservoir elevation at Slab Creek Reservoir, with one month showing a change in reservoir elevation five of 14 critically dry years under baseline versus project conditions. The change in end of month reservoir elevation would be a one foot decrease in February and a one foot increase in the months of May, July, and August. Under future baseline versus future project conditions, there would be even less change in end of month reservoir elevation with only three of 564 modeled months showed a change in end of month reservoir elevation in three critically dry years. The change in end of month reservoir elevation would be a one foot decrease in the months of February, April and August.

Table 11. Changes in Slab Creek Reservoir End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	0	1	0	0	0	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

Table 12. Changes in Slab Creek Reservoir End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

Post-Construction Operations

Modeling results for Slab Creek Reservoir under post-construction operations show a very small change in end of month reservoir elevations. Combining all water year types, modeling for baseline versus project conditions shows there would be a two foot decrease in the minimum end of month reservoir elevation in March and a one foot increase in the minimum end of month reservoir elevation in May (Table 13). In future baseline versus future project conditions, there would be the same decrease in March (two foot decrease) minimum end of month reservoir elevation and a one foot decrease in September minimum end of month reservoir elevation (Table 14). Modeling does not show any changes to maximum or average end of month reservoir elevations under either baseline versus project or future baseline versus future project conditions (Table 13 and Table 14). Modeling results by year show only 11 of 564 modeled months would have a change in end of month reservoir elevation at Slab Creek Reservoir, with one to two months showing a change in reservoir elevation in eight of 14 critically dry years under baseline versus project conditions. The change in end of month reservoir elevation would be a one to two foot decrease in the months of February, March, and April and a one foot increase in the months of May, July, and August. Under future baseline versus future project conditions, only eight of 564 modeled months showed a change in end of month reservoir elevation in six critically dry years and one dry year. Seven of the eight months with reservoir elevation changes showed a one to two foot decrease in end of month reservoir elevation in February, March or April. There was one September that showed a seven foot decrease in end of month reservoir elevation.

Table 13. Changes in Slab Creek Reservoir End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Post-Construction Operations (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	-2	0	1	0	0	0	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

Table 14. Changes in Slab Creek Reservoir End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Post-Construction Operations (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	-2	0	0	0	0	0	-1
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

CHILI BAR RESERVOIR

Existing Infrastructure Operations

Modeling results for Chili Bar Reservoir under existing infrastructure operating conditions show no change to minimum, maximum or average end of month reservoir elevation under either baseline versus project or future baseline versus future project conditions (Table 15 and Table 16). Modeling results by year show no changes to end of month reservoir elevation under baseline versus project conditions. Under future baseline versus future project conditions, only two out of 564 modeled months showed a change in end of month reservoir elevation, one month in a dry year and one month in a critically dry year. The changes in end of month reservoir elevation included a two foot decrease in April and a one foot increase in April.

Table 15. Changes in Chili Bar Reservoir End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

Table 16. Changes in Chili Bar Reservoir End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

Post-Construction Operations

Chili Bar Reservoir modeling results for post-construction operations show a very slight change in end of month reservoir elevation for this SMUD reservoir. Combining all water year types, modeling for baseline versus project conditions shows there would be a one foot decrease in the minimum end of month reservoir elevation in March (Table 17). In future baseline versus future project conditions, there would be the same decrease in March (one foot decrease) minimum end of month reservoir elevation and a two foot decrease in September minimum end of month reservoir elevation (Table 18). Modeling results by year for Chili Bar Reservoir show only two of the 564 modeled months would have a change in end of month reservoir elevation under baseline versus project conditions. These two months both occurred during critically dry years and included a one foot decrease in end of month reservoir elevation in March and a one foot increase in end of month reservoir elevation in April. Under future baseline versus future project conditions, only three out of 564 modeled months showed a change in end of month reservoir elevation. The changes in end of month reservoir elevation included a one foot decrease in March, one foot increase in April, and three foot decrease in September.

Table 17. Changes in Chili Bar Reservoir End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Post-Construction Operations (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	-1	0	0	0	0	0	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

Table 18. Changes in Chili Bar Reservoir End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Post-Construction Operations (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	-1	0	0	0	0	0	-2
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

UNION VALLEY RESERVOIR

Existing Infrastructure Operations

Modeling results for Union Valley Reservoir under existing infrastructure operating conditions show a very small change in end of month reservoir elevations. Combining all water year types, modeling shows that under baseline versus project conditions there would be a one foot increase in the average end of month reservoir elevation for July and a one foot increase in the minimum end of month reservoir elevation in September (Table 19). Modeling of future baseline versus future project conditions shows a one foot decrease in the minimum end of month reservoir elevation in August and September (Table 20). Modeling results by year for Union Valley Reservoir show only 16 of 564 modeled months would have a change in end of month reservoir elevation, with one to three months showing a change in reservoir elevation in nine of 14 critically dry years. The change in end of month reservoir elevation was a one to two foot increase in the months of June, July, August and September. Under future baseline versus future project conditions, only 10 of 564 modeled months showed a change in end of month reservoir elevation in seven critically dry years. The change in end of month reservoir elevation was either a one foot decrease or a one foot increase. The one foot decrease occurred in June, July, August and September and the one foot increase occurred in July and August.

Table 19. Changes in Union Valley Reservoir End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	0	0	0	0	0	1
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	1	0	0

Table 20. Changes in Union Valley Reservoir End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Existing Infrastructure (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	0	0	0	0	-1	-1
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

Post-Construction Operations

Modeling results for Union Valley Reservoir under post-construction operations show a very small change in end of month reservoir elevations. Combining all water year types, modeling shows that under baseline versus project conditions there would be a one foot increase in the average end of month reservoir elevation for July and a one foot increase in the minimum end of month reservoir elevation in September (Table 21). There would be no changes to minimum, maximum or average end of month reservoir elevation under future baseline versus future project conditions (Table 22). Modeling results by year for Union Valley Reservoir show only 17 of 564 modeled months would have a change in end of month reservoir elevation, with one to three months showing a change in reservoir elevation in nine of 14 critically dry years. The change in end of month reservoir elevation was a one to two foot increase in the months of June, July, August and September. Under future baseline versus future project conditions, only 13 of 564 modeled months showed a change in end of month reservoir elevation in six critically dry years and one dry year. The change in end of month reservoir elevation was either a one foot decrease or a one foot increase. The one foot decrease occurred in March, April, May, June and September and the one foot increase occurred in July and August.

Table 21. Changes in Union Valley Reservoir End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Post-Construction Operations (All Water Year Types Combined).

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	0	0	0	0	0	1
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	1	0	0

Table 22. Changes in Union Valley Reservoir End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Post-Construction Operations (All Water Year Types Combined).

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Minimum	0	0	0	0	0	0	0	0	0	0	0	0
Maximum	0	0	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0	0	0

ICE HOUSE RESERVOIR AND LOON LAKE

Existing Infrastructure and Post-Construction Operations

Modeling results for Ice House Reservoir and Loon Lake under both existing infrastructure and post-construction operating conditions show no change in end of month reservoir elevations. Combining all water year types, modeling shows there would be no change in minimum, maximum, or average end of month reservoir elevation at either of these lakes as demonstrated in Table 23 and Table 24 below. Modeling results by year under both existing infrastructure and post-construction operating conditions also show no changes to the end of month reservoir elevations for either Ice House Reservoir or Loon Lake under either baseline versus project or future baseline versus future project conditions.

Table 23. Changes in Minimum, Maximum and Average End of Month Reservoir Elevation in Feet – Baseline versus Project Conditions, Existing Infrastructure and Post-Construction Operations (All Water Year Types Combined).

Reservoir	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Ice House	0	0	0	0	0	0	0	0	0	0	0	0
Loon Lake	0	0	0	0	0	0	0	0	0	0	0	0

Table 24. Changes in Minimum, Maximum and Average End of Month Reservoir Elevation in Feet – Future Baseline versus Future Project Conditions, Existing Infrastructure and Post-Construction Operations (All Water Year Types Combined).

Reservoir	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Ice House	0	0	0	0	0	0	0	0	0	0	0	0
Loon Lake	0	0	0	0	0	0	0	0	0	0	0	0

RIVERS

Changes in streamflow on the South Fork in cfs were identified by reviewing HEC-ResSim hydrologic modeling results for the Project for the water years 1975 to 2021 under both baseline versus project conditions and future baseline versus future project conditions. A summary of all the years for each water year type was reviewed to identify average changes by month in each water year type. Any changes in streamflow were reviewed for trends in changes by month, water year type, and magnitude.

SOUTH FORK UPSTREAM OF THE EL DORADO DIVERSION DAM

Existing Infrastructure and Post-Construction Operations

There would be no changes in streamflow to the South Fork upstream of the El Dorado Diversion Dam as indicated by modeling results for both existing infrastructure and post-construction operating conditions as shown in Table 25 and Table 26.

Table 25. South Fork Upstream of the El Dorado Diversion Dam Changes in Streamflow in cubic feet per second (cfs) – Baseline versus Project Conditions, Existing Infrastructure and Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Table 26. South Fork Upstream of the El Dorado Diversion Dam Changes in Streamflow in cubic feet per second (cfs) – Future Baseline versus Future Project Conditions, Existing Infrastructure and Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

SOUTH FORK DOWNSTREAM OF THE EL DORADO DIVERSION DAM

The South Fork Downstream of the El Dorado Diversion Dam modeling node is located at U.S. Geological Survey (USGS) Gage 11439500 about 0.5 mile downstream of the El Dorado Diversion Dam.

Existing Infrastructure Operations

Modeling results for the South Fork downstream of the El Dorado Diversion Dam under existing infrastructure operations show that there would be no change in streamflow within this section of the South Fork under baseline versus project or future baseline versus future project conditions (Table 27 and Table 28). Under existing infrastructure operations, the capacity of the El Dorado Canal would remain the same and therefore the increase of 11 cfs in streamflow shown in post-construction operations would not occur in existing infrastructure operations.

Table 27. South Fork Downstream of the El Dorado Diversion Dam Changes in Streamflow in cubic feet per second (cfs) – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Table 28. South Fork Downstream of the El Dorado Diversion Dam Changes in Streamflow in cubic feet per second (cfs) – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Post-Construction Operations

Under baseline versus project and future baseline versus future project conditions, the modeling results for the South Fork downstream of the El Dorado Diversion Dam under post-construction operations show a small decrease in streamflow between December and June for all water year types by up to 11 cfs due to restoration of the authorized capacity of El Dorado Canal (Table 29 and Table 30). In wetter years, streamflow would also slightly decrease in July (wet, above and below normal water year types) and August (wet water year type). The largest streamflow decreases would occur in April, May and June.

Table 29. South Fork Downstream of the El Dorado Diversion Dam Changes in Streamflow in cubic feet per second (cfs) – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-3	-7	-8	-9	-10	-11	-11	-8	-2	0
Above Normal	0	0	-2	-7	-5	-9	-11	-11	-10	-3	0	0
Below Normal	0	0	-2	-6	-6	-9	-11	-11	-9	-1	0	0
Dry	0	0	-2	-2	-3	-6	-10	-11	-9	0	0	0
Critically Dry	0	0	-1	-1	-3	-6	-9	-10	-4	0	0	0

Table 30. South Fork Downstream of the El Dorado Diversion Dam Changes in Streamflow in cubic feet per second (cfs) – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-3	-7	-8	-9	-10	-11	-11	-8	-2	0
Above Normal	0	0	-2	-7	-5	-9	-11	-11	-10	-3	0	0
Below Normal	0	0	-2	-6	-6	-9	-11	-11	-9	-1	0	0
Dry	0	0	-2	-2	-3	-6	-10	-11	-9	0	0	0
Critically Dry	0	0	-1	-1	-3	-6	-9	-10	-4	0	0	0

SOUTH FORK DOWNSTREAM OF THE EL DORADO POWERHOUSE

The South Fork Downstream of the El Dorado Powerhouse modeling node is located between the El Dorado Powerhouse and SMUD's Camino Powerhouse, upstream of inflow from the Camino Powerhouse. The Project would use more water for consumptive use and less water for power generation and thus less water would be returned to the South Fork through the El Dorado Powerhouse than under current conditions, thus changing streamflow downstream of the powerhouse.

Existing Infrastructure Operations

For all water year types under baseline versus project conditions, modeling results for the South Fork downstream of the El Dorado Powerhouse under existing infrastructure operations show a decrease in streamflow in January (Table 31). Minimal streamflow decreases would occur in above normal and wet years of 1 to 8 cfs with streamflow decreases occurring in December and January and a 1 cfs increase in streamflow in April of above normal years. Streamflow increases, as well as decreases, would occur in below normal, dry and critically dry years. In all three of these water year types, streamflow increases would occur in May, June, and July and could extend from March to September. As the water year type became drier, the rise in streamflow would increase from 5 cfs in below normal water years to 19 cfs in critically dry years with June, July and August having the largest streamflow increases in dry and critically dry years and August having the highest percentage increase in streamflow (up to 24.1% gain in August in critically dry water years). In addition, streamflow decreases would also get larger as the water year type became drier. In dry water years, modeling results show that streamflow would decrease 29 cfs with an up to 57 cfs loss in streamflow in critically dry years (24.2% loss in streamflow) in the winter/spring. In both water year types, the largest streamflow decreases would occur in February.

Table 31. South Fork Downstream of the El Dorado Powerhouse Changes in Streamflow in cubic feet per second (cfs) – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-1	-8	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-5	0	0	1	0	0	0	0	0
Below Normal	0	0	0	-16	-2	3	5	5	5	2	0	4
Dry	0	0	0	-7	-29	-7	-8	5	13	11	7	0
Critically Dry	0	0	0	-17	-57	-47	-26	12	17	19	18	4

Under future baseline versus future project conditions for existing infrastructure operations, modeling results show a decrease in streamflow in December and January of all water year types (Table 32). Streamflow decreases would be larger in wet and above normal water years under future baseline versus future project conditions compared to baseline versus project conditions, with up to a 17 cfs decrease in wet years and a 35 cfs decrease in above normal water years. The largest change in streamflow in these water year types would still occur in January. In below normal, dry and critically dry years, streamflow decreases would extend from December to March or longer. In critically dry years, streamflow losses would extend from December to September with the exception of June. The largest streamflow decrease during dry and critically dry water years would still occur in February, but the decrease would be larger in amount under future baseline versus future project conditions in dry years, and there would be larger decreases in adjacent months (January and March) in both water year types, particularly in dry years. In dry water years, streamflow would decrease up to 46 cfs with an up to 57 cfs loss in streamflow in critically dry years (24.2% loss in streamflow). Streamflow increases would occur in below normal, dry and critically dry years, the same as baseline versus project conditions, but would also occur in above normal water year types as well under future baseline versus future project conditions. However, in critically dry years, streamflow increase would only occur in June instead of May through September (as would occur under baseline versus project conditions) and streamflow increases would not occur in August of dry years and July or September of below normal years under future baseline versus future project conditions compared to baseline versus project conditions.

Table 32. South Fork Downstream of the El Dorado Powerhouse Changes in Streamflow in cubic feet per second (cfs) – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-3	-17	0	0	0	1	0	0	0	0
Above Normal	0	0	-2	-35	2	6	1	4	0	0	0	0
Below Normal	0	0	-2	-28	-22	-1	10	13	20	0	0	-1
Dry	0	0	-4	-20	-46	-35	-3	11	21	4	0	0
Critically Dry	0	0	-5	-23	-57	-50	-36	-3	11	-1	-10	-5

Post-Construction Operations

For all water year types under baseline versus project conditions, modeling results for the South Fork downstream of the El Dorado Powerhouse under post-construction operations show a decrease in streamflow in January, February, and March (Table 33). Minimal streamflow decreases would occur in above normal and wet years of one to 10 cfs with streamflow decreases extending between December and July. Streamflow increases, as well as decreases, would occur in below normal, dry and critically dry years. In all three of these water year types, streamflow increases would occur in May, June, and July and could extend from March to September. As the water year type became drier, the rise in streamflow would increase from 4 cfs in below normal water years to 20 cfs in critically dry years with June and July having the largest streamflow increases in dry and critically dry years and August having the highest percentage increase in streamflow (up to 24.1% gain in August in critically dry water years). In addition, streamflow decreases would also get larger as the water year type became drier. In dry water years, modeling results show that streamflow would decrease 30 cfs with an up to 78 cfs loss in streamflow in critically dry years (33.1% loss in streamflow) in the winter/spring. In both water year types, the largest streamflow decreases would occur in February.

Table 33. South Fork Downstream of the El Dorado Powerhouse Changes in Streamflow in cubic feet per second (cfs) – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-1	-10	-1	-1	-1	-1	-1	-1	0	0
Above Normal	0	0	0	-4	-1	-1	0	-1	-1	0	0	0
Below Normal	0	0	0	-18	-2	3	4	4	4	1	0	4
Dry	0	0	0	-7	-30	-12	-8	9	12	11	7	0
Critically Dry	0	0	0	-18	-78	-66	0	16	20	19	18	4

Under future baseline versus future project conditions, modeling results under post-construction operations show a decrease in streamflow in December and January of all water year types and a decrease in streamflow in February and March in all water year types except above normal (Table 34). Streamflow decreases would be larger in wet and above normal water years under future baseline versus future project conditions compared to baseline versus project conditions, with up to a 20 cfs decrease in wet years and a 40 cfs decrease in above normal water years. The largest change in streamflow in these water year types would still occur in January. The largest streamflow decrease during dry and critically dry water years would still occur in February, but the decrease would be larger in amount under future baseline versus future project conditions and there would be larger decreases in adjacent months (January and March) as well. In dry water years, streamflow would decrease up to 64 cfs with an up to 82 cfs loss in streamflow in critically dry years (34.7% loss in streamflow).

Streamflow increases would occur in below normal, dry and critically dry years, the same as baseline versus project conditions, but would also occur in above normal water year types as well under future baseline versus future project conditions. However, streamflow increases would not occur in August of dry years and September of below normal or critically dry years under future baseline versus future project conditions compared to baseline versus project conditions.

Table 34. South Fork Downstream of the El Dorado Powerhouse Changes in Streamflow in cubic feet per second (cfs) – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-3	-20	-1	-1	-1	0	-1	-1	0	0
Above Normal	0	0	-2	-40	2	6	0	3	-1	0	0	0
Below Normal	0	0	-2	-33	-23	-4	10	14	20	0	0	-1
Dry	0	0	-4	-21	-64	-37	-3	18	26	4	0	0
Critically Dry	0	0	-5	-25	-82	-76	-14	5	13	2	2	-3

SOUTH FORK DOWNSTREAM OF CHILI BAR DAM

The South Fork Downstream of Chili Bar Dam modeling node is located at USGS Gage 11444500, immediately downstream of Chili Bar Dam, between the dam and Highway 193.

Existing Infrastructure Operations

For all water year types under baseline versus project conditions, modeling results for the South Fork at Chili Bar under existing infrastructure operations show a decrease in streamflow in January (Table 35). Minimal streamflow decreases would occur in above normal and wet years of 1 to 8 cfs, with streamflow decreases occurring in December and January and minimal streamflow increases occurring in October and April (1–2 cfs). Summer streamflow increases would occur in below normal, dry and critically dry years. In all three of these water year types, streamflow increases would occur in May, June, and July downstream of Chili Bar Dam and could extend into August in dry and critically dry years, with increases in streamflow in September as well in below normal and critically dry years. As the water year type became drier, the rise in streamflow would increase from 5 cfs in below normal water years to 19 cfs in critically dry years with June and July having the largest streamflow increases in dry years and August and September having the largest streamflow increases in critically dry years. September of critically dry years would have the highest percentage increase in streamflow (3.5%). Streamflow decreases would get larger as the water year type became drier. In dry water years, streamflow would decrease 28 cfs with an up to 56 cfs loss in streamflow in critically dry years (8.1% loss in streamflow) in the winter/spring. In both year types, the largest streamflow decreases would occur in February.

Table 35. South Fork Downstream of Chili Bar Dam Changes in Streamflow in cubic feet per second (cfs) – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	2	0	-1	-8	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-5	0	0	1	0	0	0	0	0
Below Normal	2	0	0	-15	-2	3	5	5	4	2	0	4
Dry	0	0	0	-7	-28	-7	-8	5	11	13	6	0
Critically Dry	0	0	0	-18	-56	-47	-26	11	10	9	15	19

Under future baseline versus future project conditions, modeling results under existing infrastructure operations show a decrease in streamflow in December and January of all water year types (Table 36). Streamflow decreases would be larger in wet and above normal water years under future baseline versus future project conditions compared to baseline versus project conditions, with up to a 17 cfs decrease in wet years and a 35 cfs decrease in above normal water years. The largest change in streamflow in these water year types would still occur in January. In below normal, dry and critically dry years, streamflow decreases would extend from December to March or longer. In critically dry years, streamflow losses would extend from December to September with the exception of June. The largest streamflow decrease during dry and critically dry water years would still occur in February, but the decrease would be larger in amount under future baseline versus future project conditions in dry years, and there would be larger decreases in adjacent months (January and March) in both water year types, particularly in dry years. In dry water years, streamflow would decrease up to 45 cfs with an up to 56 cfs loss in streamflow in critically dry years (8.1% loss in streamflow). Streamflow increases would occur in below normal, dry and critically dry years, the same as baseline versus project conditions, but would also occur in above normal water year types as well under future baseline versus future project conditions. However, in critically dry years, streamflow increase would only occur in June instead of May through September (as would occur under baseline versus project conditions) and streamflow increases would not occur in August of dry years and September of below normal years under future baseline versus future project conditions compared to baseline versus project conditions.

Table 36. South Fork Downstream of Chili Bar Dam Changes in Streamflow in cubic feet per second (cfs) – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-2	0	-2	-17	0	0	0	1	0	0	0	0
Above Normal	0	0	-2	-35	2	6	1	4	0	0	0	0
Below Normal	-2	0	-2	-27	-22	-1	10	13	19	1	0	-1
Dry	0	0	-3	-21	-45	-35	-4	11	18	5	0	0
Critically Dry	0	0	-4	-23	-56	-50	-35	-3	8	-1	-7	-3

Post-Construction Operations

For all water year types under baseline versus project conditions, modeling results for the South Fork at Chili Bar under post-construction operations show a decrease in streamflow in January and February as well as March for all but below normal water years (Table 37). Minimal streamflow decreases would occur in above normal and wet years of one to 10 cfs, with streamflow decreases extending between December and July. There could also be an increase in streamflow in October in wet years. Summer streamflow increases would occur in below normal, dry and critically dry years. In all three of these water year types, streamflow increases would occur in May, June, and July downstream of Chili Bar Dam and could extend into August in dry and critically dry years, with increases in streamflow in September as well in below normal and critically dry years. As the water year type became drier, the rise in streamflow would increase from 4 cfs in below normal water years to 20 cfs in critically dry years with June and July having the largest streamflow increases in dry years and May, August and September having the largest streamflow increases in critically dry years. September of critically dry years would have the highest percentage increase in streamflow (3.6%). Streamflow decreases would get larger as the water year type became drier. In dry water years, streamflow would decrease 30 cfs with an up to 77 cfs loss in streamflow in critically dry years (11.1% loss in streamflow) in the winter/spring. In both year types, the largest streamflow decreases would occur in February.

Table 37. South Fork Downstream of Chili Bar Dam Changes in Streamflow in cubic feet per second (cfs) – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	2	0	-1	-10	-1	-1	-1	-1	-1	-1	0	0
Above Normal	0	0	0	-4	-1	-1	0	-1	-1	0	0	0
Below Normal	2	0	0	-18	-2	2	4	4	3	2	0	4
Dry	0	0	0	-7	-30	-12	-8	8	10	13	6	0
Critically Dry	0	0	0	-19	-77	-66	-1	15	12	10	15	20

Under future baseline versus future project conditions, modeling results for post-construction operations show a decrease in streamflow in December and January of all water year types and a decrease in streamflow in February and March in all water year types except above normal (Table 38). Streamflow decreases would be larger in wet and above normal water years under future baseline versus future project conditions compared to baseline versus project conditions, with up to a 20 cfs decrease in wet years and a 39 cfs decrease in above normal water years. The largest change in streamflow in these water year types would still occur in January. The largest streamflow decrease during dry and critically dry water years would still occur in February, but the decrease would be larger in amount (compared to baseline versus project conditions) and there would be larger decreases in adjacent months (January and March) as well. In dry water years, streamflow would decrease up to 62 cfs with an up to 81 cfs loss in streamflow in critically dry years (11.6% loss in streamflow). Streamflow increases would occur in below normal, dry and critically dry years, the same as baseline versus project conditions, but would also occur in above normal water year types as well under future baseline versus future project conditions. However, streamflow increases would not occur in August of dry years and September of below normal years under future baseline versus future project conditions compared to baseline versus project conditions.

Table 38. South Fork Downstream of Chili Bar Dam Changes in Streamflow in cubic feet per second (cfs) – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-2	0	-3	-20	-1	-1	-1	0	-1	-1	0	0
Above Normal	0	0	-2	-39	2	6	0	3	-1	0	0	0
Below Normal	-1	0	-2	-33	-22	-4	10	14	19	1	0	-1
Dry	0	0	-3	-22	-62	-37	-4	19	23	5	-1	0
Critically Dry	0	0	-4	-25	-81	-76	-15	5	9	1	-3	4

SOUTH FORK AT SALMON FALLS

The South Fork at Salmon Falls modeling node is located near the Salmon Falls road bridge over the South Fork at the furthest downstream point of the South Fork before the confluence of the South Fork and Folsom Reservoir. This modeling node represents the inflow of the South Fork into Folsom Reservoir.

Existing Infrastructure Operations

For all water year types under baseline versus project conditions, modeling results for the South Fork at Salmon Falls under existing infrastructure operations show a decrease in streamflow in January (Table 39). Minimal streamflow decreases would occur in above normal and wet years of 1 to 8 cfs, with streamflow decreases occurring in December and January and minimal streamflow increases occurring in October and April (1–2 cfs). Summer streamflow increases would occur in below normal, dry and critically dry years. In all three of these water year types, streamflow increases would occur in May, June, and July and could extend into August in dry and critically dry years, with increases in streamflow in September as well in below normal and critically dry years. As the water year type became drier, the rise in streamflow would increase from 5 cfs in below normal water years to 19 cfs in critically dry years with June and July having the largest streamflow increases in dry years and August and September having the largest streamflow increases in critically dry years. September of critically dry years would have the highest percentage increase in streamflow (3.5%). Streamflow decreases would get larger as the water year type became drier. In dry water years, streamflow would decrease 28 cfs with an up to 56 cfs loss in streamflow in critically dry years (6.8% loss in streamflow) in the winter/spring. In both year types, the largest streamflow decreases would occur in February.

Table 39. South Fork at Salmon Falls Changes in Streamflow in cubic feet per second (cfs) – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	2	0	-1	-8	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-5	0	0	1	0	0	0	0	0
Below Normal	2	0	0	-15	-2	3	5	5	4	2	0	4
Dry	0	0	0	-7	-28	-7	-8	5	11	13	6	0
Critically Dry	0	0	0	-18	-56	-47	-26	11	10	9	15	19

Under future baseline versus future project conditions, modeling results for existing infrastructure operations show a decrease in streamflow in December and January of all water year types (Table 40). Streamflow decreases would be larger in wet and above normal water years under future baseline versus future project

conditions compared to baseline versus project conditions, with up to a 17 cfs decrease in wet years and a 35 cfs decrease in above normal water years. The largest change in streamflow in these water year types would still occur in January. In below normal, dry and critically dry years, streamflow decreases would extend from December to March or longer. In critically dry years, streamflow losses would extend from December to September with the exception of June. The largest streamflow decrease during dry and critically dry water years would still occur in February, but the decrease would be larger in amount under future baseline versus future project conditions in dry years, and there would be larger decreases in adjacent months (January and March) in both water year types, particularly in dry years. In dry water years, streamflow would decrease up to 45 cfs with an up to 56 cfs loss in streamflow in critically dry years (6.8% loss in streamflow). Streamflow increases would occur in below normal, dry and critically dry years, the same as baseline versus project conditions, but would also occur in above normal water year types as well under future baseline versus future project conditions. However, in critically dry years, streamflow increase would only occur in June instead of May through September (as would occur under baseline versus project conditions) and streamflow increases would not occur in August of dry years and September of below normal years under future baseline versus future project conditions compared to baseline versus project conditions.

Table 40. South Fork at Salmon Falls Changes in Streamflow in cubic feet per second (cfs) – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-2	0	-2	-17	0	0	0	1	0	0	0	0
Above Normal	0	0	-2	-35	2	6	1	4	0	0	0	0
Below Normal	-2	0	-2	-27	-22	-1	10	13	19	1	0	-1
Dry	0	0	-3	-21	-45	-35	-4	11	18	5	0	0
Critically Dry	0	0	-4	-23	-56	-50	-35	-3	8	-1	-7	-3

Post-Construction Operations

For all water year types under baseline versus project conditions, modeling results for the South Fork at Salmon Falls under post-construction operations show a decrease in streamflow in January and February as well as March for all but below normal water years (Table 41). Minimal streamflow decreases would occur in above normal and wet years of one to 10 cfs, with streamflow decreases extending between December and July. There could also be an increase in streamflow in October in wet years. Summer streamflow increases would occur in below normal, dry and critically dry years. In all three of these water year types, streamflow increases would occur in May, June, and July and could extend into August in dry and critically dry years, with increases in streamflow in September as well in below normal and critically dry years. As the water year type became drier, the rise in streamflow would increase from 4 cfs in below normal water years to 20 cfs in critically dry years with June and July having the largest streamflow increases in dry years and May, August and September having the largest streamflow increases in critically dry years. September of critically dry years would have the highest percentage increase in streamflow (3.5%). Streamflow decreases would get larger as the water year type became drier. In dry water years, streamflow would decrease by 30 cfs with an up to 77 cfs loss in streamflow in critically dry years (9.3% loss in streamflow). In both year types, the largest streamflow decreases would occur in February.

Table 41. South Fork at Salmon Falls Changes in Streamflow in cubic feet per second (cfs) – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	2	0	-1	-10	-1	-1	-1	-1	-1	-1	0	0
Above Normal	0	0	0	-3	-1	-1	0	-1	-1	0	0	0
Below Normal	2	0	0	-18	-2	2	4	4	3	2	0	4
Dry	0	0	0	-7	-30	-12	-8	8	10	13	6	0
Critically Dry	0	0	0	-19	-77	-66	-1	15	12	10	15	20

Under future baseline versus future project conditions, modeling results for post-construction operations show a decrease in streamflow in December and January of all water year types and a decrease in streamflow in February and March in all water year types except above normal (Table 42). Streamflow decreases would be larger in wet and above normal water years under future baseline versus future project conditions compared to baseline versus project conditions, with up to a 20 cfs decrease in wet years and a 39 cfs decrease in above normal water years. The largest change in streamflow in these water year types would still occur in January. The largest streamflow decrease during dry and critically dry water years would still occur in February, but the decrease would be larger in amount (compared to baseline versus project conditions) and there would be larger decreases in adjacent months (January and March) as well. In dry water years, streamflow would decrease up to 62 cfs with an up to 81 cfs loss in streamflow in critically dry years (9.8% loss in streamflow). Streamflow increases under future baseline versus future project conditions would occur in May, June and July in below normal, dry and critically dry years, the same as baseline versus project conditions. Unlike baseline versus project conditions, there would be small streamflow increases in above normal water year types under future baseline versus future project conditions in February, March and May. Other changes under future baseline versus future project conditions compared to baseline versus project conditions include no streamflow increases in August of dry and critically dry years and September of below normal years and a small reduction (1–2 cfs) of streamflow in October of wet and below normal water years.

Table 42. South Fork at Salmon Falls Changes in Streamflow in cubic feet per second (cfs) – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-2	0	-3	-20	-1	-1	-1	0	-1	-1	0	0
Above Normal	0	0	-2	-39	2	6	0	3	-1	0	0	0
Below Normal	-1	0	-2	-33	-22	-4	10	14	19	1	0	-1
Dry	0	0	-3	-22	-62	-37	-4	19	23	5	-1	0
Critically Dry	0	0	-4	-25	-81	-76	-15	5	9	1	-3	4

WHITEWATER BOATING ON THE SOUTH FORK

The American Whitewater's boatable days study framework (American Whitewater 2023) was used as the basis for quantifying whitewater boating recreation opportunities on the South Fork and how the Project may change these opportunities. First, the boatable flows were identified for each run on the South Fork from Kyburz down to Folsom Reservoir. The whitewater boating run upstream of Kyburz, the Lover's Leap run from Strawberry to Kyburz, was not included as flows upstream of the El Dorado Diversion Dam at Kyburz would not be affected by the Project A range of boatable flows for each run were based on a review of *The Best Whitewater in*

California: The Guide to 180 Runs by Stanley and Holbek (1998) and the American Whitewater webpages for each South Fork run (American Whitewater 2024a through g). There could be other boatable flow ranges depending on personal preference, personal experience, and/or craft used. However, the analysis uses the boatable flows based on the published sources identified above, as these are based on available literature, rather than individual interpretations, which may vary widely with user experience and preference. HEC-ResSim hydrologic modeling results were then reviewed to determine how many days these boatable flows were present on each run. The days where boatable flows were present are referred to as boatable days. A boatable day was defined for this analysis as three consecutive hours of flows within the run's specified boatable flow range between the hours of 7am and 7pm. Three hours was used as the basis for a boatable day because this is the shortest amount of time for FERC-required Chili Bar recreational flows, and most runs can be accomplished in three hours. Though daylight hours vary over the course of a year, 7am to 7pm was used to generally cover most daylight hours in a day. Hourly river modeling results were post-processed to determine if boatable day conditions were met for each day in each month of the dataset (1975 to 2021). Flows for each whitewater run were based on the put-in location (beginning point of the run). If a run had different boatable ranges based on difficulty class, then an analysis of boatable days was conducted for each boatable range separately.

The number of boatable days under baseline, project, future baseline, and future project conditions were calculated for each month in the dataset and then averaged together by water year type and month. These monthly averages of boatable days by water year type were then rounded to the nearest whole day to be consistent with other studies that used the American Whitewater boatable days study framework. The average number of boatable days in each month for each water year type were then compared – baseline versus project and future baseline versus future project conditions – to identify changes in the number of boatable days for each month by water year type. The number of boatable days in each month for each water year type was also compared – baseline versus project and future baseline versus future project conditions – to identify the maximum change, both positive and negative, in the number of boatable days by month for each water year type.

KYBURZ TO RIVERTON RUN

Existing Infrastructure Operations

Table 43. Monthly Average Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 600 to 1,200 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	1	2	1	3	7	13	5	5	8	0	0
	Project	1	1	2	1	3	7	13	5	5	8	0	0
	Future Baseline	1	1	2	1	3	7	13	5	5	8	0	0
	Future Project	1	1	2	1	3	7	13	5	5	8	0	0
Above Normal	Baseline	0	0	0	2	2	1	7	9	12	3	0	0
	Project	0	0	0	2	2	1	7	9	12	3	0	0
	Future Baseline	0	0	0	2	2	1	7	9	12	3	0	0
	Future Project	0	0	0	2	2	1	7	9	12	3	0	0
Below Normal	Baseline	0	2	2	2	1	9	18	17	9	0	0	0
	Project	0	2	2	2	1	9	18	17	9	0	0	0
	Future Baseline	0	2	2	2	1	9	18	17	9	0	0	0
	Future Project	0	2	2	2	1	9	18	17	9	0	0	0
Dry	Baseline	0	1	1	3	1	4	8	18	6	0	0	0
	Project	0	1	1	3	1	4	8	18	6	0	0	0
	Future Baseline	0	1	1	3	1	4	8	18	6	0	0	0
	Future Project	0	1	1	3	1	4	8	18	6	0	0	0
Critically Dry	Baseline	0	0	0	0	0	0	2	6	0	0	0	0
	Project	0	0	0	0	0	0	2	6	0	0	0	0
	Future Baseline	0	0	0	0	0	0	2	6	0	0	0	0
	Future Project	0	0	0	0	0	0	2	6	0	0	0	0

Table 44. Monthly Average Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 1,200 to 3,000 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	0	0	1	1	2	3	7	23	20	4	0	0
	Project	0	0	1	1	2	3	7	23	20	4	0	0
	Future Baseline	0	0	1	1	2	3	7	23	20	4	0	0
	Future Project	0	0	1	1	2	3	7	23	20	4	0	0
Above Normal	Baseline	0	0	0	1	1	0	2	21	11	0	0	0
	Project	0	0	0	1	1	0	2	21	11	0	0	0
	Future Baseline	0	0	0	1	1	0	2	21	11	0	0	0
	Future Project	0	0	0	1	1	0	2	21	11	0	0	0
Below Normal	Baseline	0	2	1	0	1	2	4	13	2	0	0	0
	Project	0	2	1	0	1	2	4	13	2	0	0	0
	Future Baseline	0	2	1	0	1	2	4	13	2	0	0	0
	Future Project	0	2	1	0	1	2	4	13	2	0	0	0
Dry	Baseline	0	0	1	1	0	0	3	7	1	0	0	0
	Project	0	0	1	1	0	0	3	7	1	0	0	0
	Future Baseline	0	0	1	1	0	0	3	7	1	0	0	0
	Future Project	0	0	1	1	0	0	3	7	1	0	0	0
Critically Dry	Baseline	0	0	0	0	0	0	0	0	0	0	0	0
	Project	0	0	0	0	0	0	0	0	0	0	0	0
	Future Baseline	0	0	0	0	0	0	0	0	0	0	0	0
	Future Project	0	0	0	0	0	0	0	0	0	0	0	0

Table 45. Changes in Monthly Average Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 600 to 1,200 cfs – Baseline versus Project and Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Table 46. Changes in Monthly Average Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 1,200 to 3,000 cfs – Baseline versus Project and Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Post-Construction Operations

Table 47. Monthly Average Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 600 to 1,200 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	1	2	1	3	7	13	5	5	8	0	0
	Project	1	1	1	2	3	7	13	5	6	7	0	0
	Future Baseline	1	1	2	1	3	7	13	5	5	8	0	0
	Future Project	1	1	1	2	3	7	13	5	6	7	0	0
Above Normal	Baseline	0	0	0	2	2	1	7	9	12	3	0	0
	Project	0	0	0	2	2	1	6	9	13	3	0	0
	Future Baseline	0	0	0	2	2	1	7	9	12	3	0	0
	Future Project	0	0	0	2	2	1	6	9	13	3	0	0
Below Normal	Baseline	0	2	2	2	1	9	18	17	9	0	0	0
	Project	0	2	2	2	1	9	18	17	9	0	0	0
	Future Baseline	0	2	2	2	1	9	18	17	9	0	0	0
	Future Project	0	2	2	2	1	9	18	17	9	0	0	0
Dry	Baseline	0	1	1	3	1	4	8	18	6	0	0	0
	Project	0	1	1	3	1	4	8	18	6	0	0	0
	Future Baseline	0	1	1	3	1	4	8	18	6	0	0	0
	Future Project	0	1	1	3	1	4	8	18	6	0	0	0
Critically Dry	Baseline	0	0	0	0	0	0	2	6	0	0	0	0
	Project	0	0	0	0	0	0	2	6	0	0	0	0
	Future Baseline	0	0	0	0	0	0	2	6	0	0	0	0
	Future Project	0	0	0	0	0	0	2	6	0	0	0	0

Table 48. Monthly Average Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 1,200 to 3,000 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	0	0	1	1	2	3	7	23	20	4	0	0
	Project	0	0	1	1	2	3	7	23	20	4	0	0
	Future Baseline	0	0	1	1	2	3	7	23	20	4	0	0
	Future Project	0	0	1	1	2	3	7	23	20	4	0	0
Above Normal	Baseline	0	0	0	1	1	0	2	21	11	0	0	0
	Project	0	0	0	1	1	0	2	21	10	0	0	0
	Future Baseline	0	0	0	1	1	0	2	21	11	0	0	0
	Future Project	0	0	0	1	1	0	2	21	10	0	0	0
Below Normal	Baseline	0	2	1	0	1	2	4	13	2	0	0	0
	Project	0	2	1	0	1	2	4	13	2	0	0	0
	Future Baseline	0	2	1	0	1	2	4	13	2	0	0	0
	Future Project	0	2	1	0	1	2	4	13	2	0	0	0
Dry	Baseline	0	0	1	1	0	0	3	7	1	0	0	0
	Project	0	0	1	1	0	0	2	7	1	0	0	0
	Future Baseline	0	0	1	1	0	0	3	7	1	0	0	0
	Future Project	0	0	1	1	0	0	2	7	1	0	0	0
Critically Dry	Baseline	0	0	0	0	0	0	0	0	0	0	0	0
	Project	0	0	0	0	0	0	0	0	0	0	0	0
	Future Baseline	0	0	0	0	0	0	0	0	0	0	0	0
	Future Project	0	0	0	0	0	0	0	0	0	0	0	0

Table 49. Changes in Monthly Average Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 600 to 1,200 cfs – Baseline versus Project and Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-1	+1	0	0	0	0	+1	-1	0	0
Above Normal	0	0	0	0	0	0	-1	0	+1	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 50. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 600 to 1,200 cfs – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-1	+1	-1	+1/-2	+2/-1	+2	+1/-1	-2	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	-1	-1	0	+1/-1	+1/-1	0	0	0	0	0
Dry	0	0	0	-1	0	-1	0	-1	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 51. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 600 to 1,200 cfs – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-1	+1	-1	+1/-2	+2/-1	+2	+1/-1	-2	0	0
Above Normal	0	0	0	0	0	0	-1	+1/-1	-2	0	0	0
Below Normal	0	0	-1	-1	0	+1/-1	+1/-1	0	0	0	0	0
Dry	0	0	0	-1	0	-1	0	-1	0	0	0	0
Critically Dry	0	0	0	0	0	0	-1	-2	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 52. Changes in Monthly Average Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 1,200 to 3,000 cfs – Baseline versus Project and Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	-1	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	-1	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 53. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Kyburz to Riverton Run at 1,200 to 3,000 cfs – Baseline versus Project Conditions and Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	-3	+1/-2	+1/-3	-1	0	0
Above Normal	0	0	0	0	0	0	-1	0	-2	0	0	0
Below Normal	0	0	0	0	-1	-1	-1	-1	-1	0	0	0
Dry	0	0	0	0	0	0	-1	-1	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

RIVERTON TO PEAVINE RUN

Existing Infrastructure Operations

Table 54. Monthly Average Number of Boatable Days by Water Year Type for Riverton to Peavine Run under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	2	3	4	7	16	23	30	28	13	0	0
	Project	1	2	3	4	7	16	23	30	28	13	0	0
	Future Baseline	1	2	3	4	7	16	23	30	28	13	0	0
	Future Project	1	2	3	4	7	16	23	30	28	13	0	0
Above Normal	Baseline	0	0	0	6	4	3	17	31	22	3	0	0
	Project	0	0	0	6	4	3	17	31	22	3	0	0
	Future Baseline	0	0	0	6	4	3	17	31	22	3	0	0
	Future Project	0	0	0	6	4	3	17	31	22	3	0	0
Below Normal	Baseline	0	4	3	4	2	13	25	30	14	0	0	0
	Project	0	4	3	4	2	13	25	30	14	0	0	0
	Future Baseline	0	4	3	4	2	13	25	30	14	0	0	0
	Future Project	0	4	3	4	2	13	25	30	14	0	0	0
Dry	Baseline	0	1	3	5	2	6	15	28	8	0	0	0
	Project	0	1	3	5	2	6	15	28	8	0	0	0
	Future Baseline	0	1	3	5	2	6	15	28	8	0	0	0
	Future Project	0	1	3	5	2	6	15	28	8	0	0	0
Critically Dry	Baseline	0	0	1	0	1	1	6	9	1	0	0	0
	Project	0	0	1	0	1	1	6	9	1	0	0	0
	Future Baseline	0	0	1	0	1	1	6	9	1	0	0	0
	Future Project	0	0	1	0	1	1	6	9	1	0	0	0

Table 55. Changes in Monthly Average Number of Boatable Days by Water Year Type for Riverton to Peavine Run – Baseline versus Project and Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Post-Construction Operations

Table 56. Monthly Average Number of Boatable Days by Water Year Type for Riverton to Peavine Run under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	2	3	4	7	16	23	30	28	13	0	0
	Project	1	2	3	4	7	16	23	30	28	13	0	0
	Future Baseline	1	2	3	4	7	16	23	30	28	13	0	0
	Future Project	1	2	3	4	7	16	23	30	28	13	0	0
Above Normal	Baseline	0	0	0	6	4	3	17	31	22	3	0	0
	Project	0	0	0	6	4	3	16	31	22	3	0	0
	Future Baseline	0	0	0	6	4	3	17	31	22	3	0	0
	Future Project	0	0	0	6	4	3	16	31	22	3	0	0
Below Normal	Baseline	0	4	3	4	2	13	25	30	14	0	0	0
	Project	0	4	3	3	2	13	25	30	13	0	0	0
	Future Baseline	0	4	3	4	2	13	25	30	14	0	0	0
	Future Project	0	4	3	3	2	13	25	30	13	0	0	0
Dry	Baseline	0	1	3	5	2	6	15	28	8	0	0	0
	Project	0	1	2	5	2	6	15	28	7	0	0	0
	Future Baseline	0	1	3	5	2	6	15	28	8	0	0	0
	Future Project	0	1	2	5	2	6	15	28	7	0	0	0
Critically Dry	Baseline	0	0	1	0	1	1	6	9	1	0	0	0
	Project	0	0	1	0	1	1	5	9	1	0	0	0
	Future Baseline	0	0	1	0	1	1	6	9	1	0	0	0
	Future Project	0	0	1	0	1	1	5	9	1	0	0	0

Table 57. Changes in Monthly Average Number of Boatable Days by Water Year Type for Riverton to Peavine Run – Baseline versus Project and Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	-1	0	0	0	0	0
Below Normal	0	0	0	-1	0	0	0	0	-1	0	0	0
Dry	0	0	-1	0	0	0	0	0	-1	0	0	0
Critically Dry	0	0	0	0	0	0	-1	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 58. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Riverton to Peavine Run – Baseline versus Project Conditions and Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	-1	-1	-1	0	0	-1	-1	0
Above Normal	0	0	0	0	0	0	-1	0	-1	0	0	0
Below Normal	0	0	-1	-1	0	-1	-2	0	-1	0	0	0
Dry	0	0	-1	0	0	0	-1	-1	-2	0	0	0
Critically Dry	0	0	0	0	0	0	-2	-2	-1	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

GOLDEN GATE RUN

Existing Infrastructure Operations

Table 59. Monthly Average Number of Boatable Days by Water Year Type for Golden Gate Run under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	2	3	4	7	16	20	9	11	12	0	0
	Project	1	2	3	4	7	16	20	9	11	12	0	0
	Future Baseline	1	2	3	4	7	16	20	9	11	12	0	0
	Future Project	1	2	3	4	7	16	20	9	11	12	0	0
Above Normal	Baseline	0	0	0	7	4	5	22	14	21	4	0	0
	Project	0	0	0	7	4	5	22	14	21	4	0	0
	Future Baseline	0	0	0	7	4	5	22	14	21	4	0	0
	Future Project	0	0	0	7	4	5	22	14	21	4	0	0
Below Normal	Baseline	0	3	3	4	2	14	26	24	15	0	0	0
	Project	0	3	3	4	2	14	26	24	15	0	0	0
	Future Baseline	0	3	3	4	2	14	26	24	15	0	0	0
	Future Project	0	3	3	4	2	14	26	24	15	0	0	0
Dry	Baseline	0	1	2	4	3	7	18	27	10	0	0	0
	Project	0	1	2	4	3	7	18	27	10	0	0	0
	Future Baseline	0	1	2	4	3	7	18	27	10	0	0	0
	Future Project	0	1	2	4	3	7	18	27	10	0	0	0
Critically Dry	Baseline	0	0	1	0	1	1	10	14	1	0	0	0
	Project	0	0	1	0	1	1	10	14	1	0	0	0
	Future Baseline	0	0	1	0	1	1	10	14	1	0	0	0
	Future Project	0	0	1	0	1	1	10	14	1	0	0	0

Table 60. Changes in Monthly Average Number of Boatable Days by Water Year Type for Golden Gate Run – Baseline versus Project and Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Post-Construction Operations

Table 61. Monthly Average Number of Boatable Days by Water Year Type for Golden Gate Run under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	2	3	4	7	16	20	9	11	12	0	0
	Project	1	2	3	4	6	16	20	9	11	12	0	0
	Future Baseline	1	2	3	4	7	16	20	9	11	12	0	0
	Future Project	1	2	3	4	6	16	20	9	11	12	0	0
Above Normal	Baseline	0	0	0	7	4	5	22	14	21	4	0	0
	Project	0	0	0	7	3	5	20	15	21	4	0	0
	Future Baseline	0	0	0	7	4	5	22	14	21	4	0	0
	Future Project	0	0	0	7	3	5	20	15	21	4	0	0
Below Normal	Baseline	0	3	3	4	2	14	26	24	15	0	0	0
	Project	0	3	3	4	2	14	26	24	14	0	0	0
	Future Baseline	0	3	3	4	2	14	26	24	15	0	0	0
	Future Project	0	3	3	4	2	14	26	24	14	0	0	0
Dry	Baseline	0	1	2	4	3	7	18	27	10	0	0	0
	Project	0	1	2	4	3	6	17	26	10	0	0	0
	Future Baseline	0	1	2	4	3	7	18	27	10	0	0	0
	Future Project	0	1	2	4	3	6	17	26	10	0	0	0
Critically Dry	Baseline	0	0	1	0	1	1	10	14	1	0	0	0
	Project	0	0	1	0	1	1	10	13	1	0	0	0
	Future Baseline	0	0	1	0	1	1	10	14	1	0	0	0
	Future Project	0	0	1	0	1	1	10	13	1	0	0	0

Table 62. Changes in Monthly Average Number of Boatable Days by Water Year Type for Golden Gate Run – Baseline versus Project and Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	-1	0	0	0	0	0	0	0
Above Normal	0	0	0	0	-1	0	-2	+1	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	-1	0	0	0
Dry	0	0	0	0	0	-1	-1	-1	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	-1	0	0	0	0

Greyed out cells have a change in boatable days.

Table 63. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Golden Gate Run – Baseline versus Project Conditions and Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	-1	-1	-1	-2	+1/-2	+1	+1	-1	-1	0
Above Normal	0	0	0	0	-1	0	-3	+1	+1/-1	0	0	0
Below Normal	0	0	0	-1	-1	-1	+1/-1	+1	-1	0	0	0
Dry	0	0	0	0	-1	-1	-1	-1	-1	0	0	0
Critically Dry	0	0	0	0	0	-1	-1	-2	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

SLAB CREEK RUN

Existing Infrastructure Operations

Table 64. Monthly Average Number of Boatable Days by Water Year Type for Slab Creek Run under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	1	2	5	7	13	19	17	14	4	0	0
	Project	1	1	2	5	7	13	19	17	14	4	0	0
	Future Baseline	1	1	2	5	7	13	19	17	15	4	0	0
	Future Project	1	1	2	5	7	13	19	17	15	4	0	0
Above Normal	Baseline	0	0	1	4	2	5	5	21	7	1	0	0
	Project	0	0	1	4	2	5	5	21	7	1	0	0
	Future Baseline	0	0	1	4	2	5	5	21	7	1	0	0
	Future Project	0	0	1	4	2	5	5	21	7	1	0	0
Below Normal	Baseline	0	1	2	2	2	7	10	18	2	0	0	0
	Project	0	1	2	2	2	7	10	18	2	0	0	0
	Future Baseline	0	1	2	2	2	7	10	18	2	0	0	0
	Future Project	0	1	2	2	2	6	10	18	2	0	0	0
Dry	Baseline	0	0	3	2	4	3	4	7	1	0	0	0
	Project	0	0	3	2	4	3	4	7	1	0	0	0
	Future Baseline	0	0	3	2	4	3	4	7	1	0	0	0
	Future Project	0	0	3	2	4	3	4	7	1	0	0	0
Critically Dry	Baseline	0	0	1	0	1	0	0	0	0	0	0	0
	Project	0	0	1	0	1	0	0	0	0	0	0	0
	Future Baseline	0	0	1	0	1	0	0	0	0	0	0	0
	Future Project	0	0	1	0	1	0	0	0	0	0	0	0

Table 65. Changes in Monthly Average Number of Boatable Days by Water Year Type for Slab Creek Run – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Table 66. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Slab Creek Run – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	-1	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	-1	0	+1	0	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 67. Changes in Monthly Average Number of Boatable Days by Water Year Type for Slab Creek Run – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	-1	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 68. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Slab Creek Run – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	+1/-1	0	0	0	+1	0	0	0	0
Above Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	-1	-2	0	+1	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	-1	0	+1	0	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Post-Construction Operations

Table 69. Monthly Average Number of Boatable Days by Water Year Type for Slab Creek Run under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	1	2	5	7	13	19	17	14	4	0	0
	Project	1	1	2	5	7	13	19	17	14	4	0	0
	Future Baseline	1	1	2	5	7	13	19	17	15	4	0	0
	Future Project	1	1	2	5	7	13	19	17	15	4	0	0
Above Normal	Baseline	0	0	1	4	2	5	5	21	7	1	0	0
	Project	0	0	1	4	2	5	5	21	7	1	0	0
	Future Baseline	0	0	1	4	2	5	5	21	7	1	0	0
	Future Project	0	0	1	4	2	5	5	21	7	1	0	0
Below Normal	Baseline	0	1	2	2	2	7	10	18	2	0	0	0
	Project	0	1	2	2	2	6	10	18	2	0	0	0
	Future Baseline	0	1	2	2	2	7	10	18	2	0	0	0
	Future Project	0	1	2	2	2	6	10	18	2	0	0	0
Dry	Baseline	0	0	3	2	4	3	4	7	1	0	0	0
	Project	0	0	3	2	4	3	4	7	1	0	0	0
	Future Baseline	0	0	3	2	4	3	4	7	1	0	0	0
	Future Project	0	0	3	2	4	3	4	7	1	0	0	0
Critically Dry	Baseline	0	0	1	0	1	0	0	0	0	0	0	0
	Project	0	0	1	0	1	0	0	0	0	0	0	0
	Future Baseline	0	0	1	0	1	0	0	0	0	0	0	0
	Future Project	0	0	1	0	1	0	0	0	0	0	0	0

Table 70. Changes in Monthly Average Number of Boatable Days by Water Year Type for Slab Creek Run – Baseline versus Project and Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	-1	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 71. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Slab Creek Run – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	-1	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	-1	0	0	-1	0	0	0	0	0	0
Dry	0	0	0	0	-1	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	-1	0	+1	0	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 72. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Slab Creek Run – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	-1	0	+1	+1	0	0	0
Above Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Below Normal	0	0	-1	-1	0	-1	0	+1	0	0	0	0
Dry	0	0	0	0	-1	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	-1	0	+1	0	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

CHILI BAR RUN

Existing Infrastructure Operations

Table 73. Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	19	11	12	11	10	6	3	0	1	18	29	26
	Project	19	11	12	11	10	6	3	0	1	18	29	26
	Future Baseline	19	11	12	11	10	6	3	0	1	18	29	26
	Future Project	19	11	12	10	10	6	3	0	1	18	29	26
Above Normal	Baseline	23	12	12	14	12	13	12	0	9	27	29	25
	Project	23	12	12	14	12	13	12	0	9	27	29	25
	Future Baseline	23	12	12	14	12	12	12	1	9	27	29	25
	Future Project	23	12	12	14	12	13	12	0	9	27	29	25
Below Normal	Baseline	15	10	13	8	10	9	8	4	19	30	30	26
	Project	15	10	13	8	11	9	8	4	19	30	30	26
	Future Baseline	15	10	13	8	10	9	8	4	19	30	30	26
	Future Project	15	10	13	8	10	9	8	4	19	30	30	26
Dry	Baseline	17	14	15	13	13	18	15	11	26	28	30	27
	Project	17	14	15	13	13	18	14	11	26	29	31	27
	Future Baseline	17	14	15	13	13	18	15	12	26	29	30	26
	Future Project	17	14	15	12	12	18	14	12	26	29	30	26
Critically Dry	Baseline	17	10	10	12	10	22	24	25	24	25	25	19
	Project	17	10	10	11	9	21	23	25	24	25	25	20
	Future Baseline	17	10	10	12	10	22	24	25	24	25	25	19
	Future Project	17	10	10	11	9	21	24	25	24	25	25	19

Table 74. Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	2	2	9	18	18	25	27	30	28	13	2	2
	Project	2	2	9	18	18	25	27	30	28	13	2	2
	Future Baseline	2	2	9	18	18	25	27	30	28	13	2	2
	Future Project	2	2	9	18	18	25	27	30	28	13	2	2
Above Normal	Baseline	0	2	6	13	12	19	19	31	21	4	0	0
	Project	0	2	6	13	12	19	19	31	21	4	0	0
	Future Baseline	0	2	6	13	12	19	19	31	21	4	0	0
	Future Project	0	2	6	12	12	19	19	31	21	4	0	0
Below Normal	Baseline	2	4	4	10	9	21	23	28	11	0	0	0
	Project	2	4	4	10	9	21	23	28	11	0	0	0
	Future Baseline	2	4	4	10	9	21	22	28	10	0	0	0
	Future Project	2	4	4	10	9	21	23	28	11	0	0	0
Dry	Baseline	2	2	6	4	6	10	16	21	3	0	0	0
	Project	2	2	6	4	6	10	16	21	3	0	0	0
	Future Baseline	2	2	6	4	6	10	16	20	3	0	0	0
	Future Project	2	2	6	4	6	10	16	21	3	0	0	0
Critically Dry	Baseline	2	0	2	0	2	2	3	2	0	0	0	0
	Project	2	0	2	0	2	2	3	2	0	0	0	0
	Future Baseline	2	0	2	0	2	2	3	2	0	0	0	0
	Future Project	2	0	2	0	2	2	3	2	0	0	0	0

Table 75. Changes in Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	+1	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	-1	0	0	+1	+1	0
Critically Dry	0	0	0	-1	-1	-1	-1	0	0	0	0	+1

Greyed out cells have a change in boatable days.

Table 76. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	+2/-2	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	+1	0	0	0	+1	+1	0	-1	-1	+1	0	0
Dry	0	0	0	0	+1/-2	-1	-1	+1	-1	+2	+1	0
Critically Dry	0	0	0	-3	-2	+1/-5	-2	+1/-1	-1	0	0	+2

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 77. Changes in Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	+1	0	-1	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	-1	-1	0	-1	0	0	0	0	0
Critically Dry	0	0	0	-1	-1	-1	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 78. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-1	0	0	+3/-2	0	0	0	0	0	0	0	0
Above Normal	0	0	+1	+1	-1	+1	+2	-1	0	0	0	0
Below Normal	-1	0	0	-2	+1/-1	+1	+1/-1	0	+1/-1	+1	0	0
Dry	0	0	0	-3	+2/-4	-1	-2	+3/-3	0	0	0	0
Critically Dry	0	0	-1	-3	-2	+1/-5	+1/-1	-2	+1/-1	0	0	+1/-1

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 79. Changes in Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 80. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	-1	0	0	+1	+1	+1	0	0	0
Dry	0	0	0	0	-1	0	-1	0	+3	0	0	0
Critically Dry	0	0	0	0	-1	+1	0	+2	+1	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 81. Changes in Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	+1	0	+1	0	0	0
Dry	0	0	0	0	0	0	0	+1	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 82. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Below Normal	0	0	0	-1	0	-2	+2	0	+1	0	0	0
Dry	0	0	0	0	-2	0	-1	+2	0	0	0	0
Critically Dry	0	0	0	0	-1	-3	+1	+1	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Post-Construction Operations

Table 83. Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	19	11	12	11	10	6	3	0	1	18	29	26
	Project	19	11	12	11	10	6	3	0	1	18	29	26
	Future Baseline	19	11	12	11	10	6	3	0	1	18	29	26
	Future Project	19	11	12	10	10	6	3	0	1	18	29	26
Above Normal	Baseline	23	12	12	14	12	13	12	0	9	27	29	25
	Project	23	12	12	14	12	13	12	0	9	27	29	25
	Future Baseline	23	12	12	14	12	12	12	1	9	27	29	25
	Future Project	23	12	12	14	12	13	12	0	9	27	29	25
Below Normal	Baseline	15	10	13	8	10	9	8	4	19	30	30	26
	Project	15	10	13	8	11	9	8	4	19	30	30	26
	Future Baseline	15	10	13	8	10	9	8	4	19	30	30	26
	Future Project	15	10	13	8	10	9	8	4	19	30	30	26
Dry	Baseline	17	14	15	13	13	18	15	11	26	28	30	27
	Project	17	14	15	13	12	17	14	11	26	29	31	27
	Future Baseline	17	14	15	13	13	18	15	12	26	29	30	26
	Future Project	17	14	15	12	12	17	14	11	26	29	30	26
Critically Dry	Baseline	17	10	10	12	10	22	24	25	24	25	25	19
	Project	17	10	10	11	9	21	23	25	24	25	25	20
	Future Baseline	17	10	10	12	10	22	24	25	24	25	25	19
	Future Project	17	10	10	11	9	21	23	25	24	25	25	19

Table 84. Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	2	2	9	18	18	25	27	30	28	13	2	2
	Project	2	2	9	18	18	25	27	30	28	13	2	2
	Future Baseline	2	2	9	18	18	25	27	30	28	13	2	2
	Future Project	2	2	9	18	18	25	27	30	28	13	2	2
Above Normal	Baseline	0	2	6	13	12	19	19	31	21	4	0	0
	Project	0	2	6	13	12	19	19	31	21	4	0	0
	Future Baseline	0	2	6	13	12	19	19	31	21	4	0	0
	Future Project	0	2	6	12	12	19	19	31	21	4	0	0
Below Normal	Baseline	2	4	4	10	9	21	23	28	11	0	0	0
	Project	2	4	4	10	9	21	23	28	11	0	0	0
	Future Baseline	2	4	4	10	9	21	22	28	10	0	0	0
	Future Project	2	4	4	10	9	21	23	28	11	0	0	0
Dry	Baseline	2	2	6	4	6	10	16	21	3	0	0	0
	Project	2	2	6	4	6	10	16	21	3	0	0	0
	Future Baseline	2	2	6	4	6	10	16	20	3	0	0	0
	Future Project	2	2	6	4	6	10	16	21	3	0	0	0
Critically Dry	Baseline	2	0	2	0	2	2	3	2	0	0	0	0
	Project	2	0	2	0	2	2	3	2	0	0	0	0
	Future Baseline	2	0	2	0	2	2	3	2	0	0	0	0
	Future Project	2	0	2	0	2	2	3	2	0	0	0	0

Table 85. Changes in Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	+1	0	0	0	0	0	0	0
Dry	0	0	0	0	-1	-1	-1	0	0	+1	+1	0
Critically Dry	0	0	0	-1	-1	-1	-1	0	0	0	0	+1

Greyed out cells have a change in boatable days.

Table 86. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	+2/-2	0	0	0	0	0	+1	+1	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	+1	0	0	-1	+1	+1	+1	-1	0	+1	0	0
Dry	0	0	0	+2	-2	-2	-1	0	0	+2	+1	0
Critically Dry	0	0	-1	-3	-3	+2/-11	+1/-2	+1/-1	0	0	0	+2

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 87. Changes in Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	+1	0	-1	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	-1	-1	-1	-1	-1	0	0	0	0
Critically Dry	0	0	0	-1	-1	-1	-1	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 88. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Chili Bar Run at 700 to 1,750 cfs – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-1	0	0	+2/-2	0	0	0	0	0	0	0	0
Above Normal	0	0	+1	+1	-1	+1	+2	-1	0	0	0	0
Below Normal	-1	0	0	-3	+1/-1	+2	+1/-1	-1	+1/-1	+1	0	0
Dry	0	0	0	-2	+2/-5	-2	-2	-3	+1	0	0	0
Critically Dry	0	0	-1	-3	-3	+2/-12	-2	-2	+1	0	0	+1

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 89. Changes in Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 90. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	+1	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	-1	0	0	+1	+1	+1	0	0	0
Dry	0	0	0	0	0	0	-1	0	+3	0	0	0
Critically Dry	0	0	0	0	-1	+1/-2	+1	+2	+1	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 91. Changes in Monthly Average Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	+1	0	+1	0	0	0
Dry	0	0	0	0	0	0	0	+1	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 92. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Chili Bar Run at 1,750 to 10,000 cfs – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	+1	0	0	0	0	0	0
Above Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Below Normal	0	0	0	-1	0	-2	+2/-1	+1/-1	+1	0	0	0
Dry	0	0	0	0	-2	0	-1	+2	+2	0	0	0
Critically Dry	0	0	0	0	-1	+1/-2	+1	+2	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

COLOMA TO GREENWOOD RUN

Existing Infrastructure Operations

Table 93. Monthly Average Number of Boatable Days by Water Year Type for Coloma to Greenwood Run under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	22	15	23	29	28	31	30	31	30	31	31	29
	Project	22	15	23	29	28	31	30	31	30	31	31	29
	Future Baseline	22	15	23	29	28	31	30	31	30	31	31	29
	Future Project	22	15	23	29	28	31	30	31	30	31	31	29
Above Normal	Baseline	24	17	23	26	25	31	30	31	30	31	30	26
	Project	24	17	23	26	25	31	30	31	30	31	30	26
	Future Baseline	24	17	23	26	25	31	30	31	30	31	30	26
	Future Project	24	17	23	26	25	31	30	31	30	31	30	26
Below Normal	Baseline	17	16	19	21	20	30	30	31	29	31	30	27
	Project	17	16	19	21	20	30	30	31	29	31	30	27
	Future Baseline	17	16	19	21	20	30	30	31	29	31	30	27
	Future Project	17	16	19	21	20	30	30	31	29	31	30	27
Dry	Baseline	20	19	23	22	20	29	30	31	29	29	31	29
	Project	20	19	23	21	20	28	30	31	29	29	31	29
	Future Baseline	20	19	23	22	20	29	30	31	29	29	31	29
	Future Project	20	19	23	21	19	28	30	31	29	29	31	29
Critically Dry	Baseline	20	11	15	15	15	25	28	28	25	25	25	20
	Project	20	11	15	14	13	24	27	28	25	26	25	20
	Future Baseline	20	11	15	15	15	25	28	28	25	25	25	20
	Future Project	20	11	15	14	13	24	27	28	25	25	25	20

Table 94. Changes in Monthly Average Number of Boatable Days by Water Year Type for Coloma to Greenwood Run – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	-1	0	-1	0	0	0	0	0	0
Critically Dry	0	0	0	-1	-2	-1	-1	0	0	+1	0	0

Greyed out cells have a change in boatable days.

Table 95. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Coloma to Greenwood Run – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-2	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	+1	0	0	-3	+1	-1	0	0	0	+1	0	0
Dry	0	0	0	-3	-1	-3	0	0	0	+1	0	0
Critically Dry	0	0	0	-6	-5	-4	-4	+1/-2	0	+3	+3	+2

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 96. Changes in Monthly Average Number of Boatable Days by Water Year Type for Coloma to Greenwood Run – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	-1	-1	-1	0	0	0	0	0	0
Critically Dry	0	0	0	-1	-2	-1	-1	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 97. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Coloma to Greenwood Run – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-1	0	-2	-2	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Below Normal	-1	0	0	-3	-1	-1	0	0	0	+1	0	0
Dry	0	0	0	-5	-3	-3	0	0	0	0	0	0
Critically Dry	0	0	-1	-6	-5	-4	-4	-2	+1	-1	-1	+1/-1

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Post-Construction Operations

Table 98. Monthly Average Number of Boatable Days by Water Year Type for Coloma to Greenwood Run under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	22	15	23	29	28	31	30	31	30	31	31	29
	Project	22	15	23	29	28	31	30	31	30	31	31	29
	Future Baseline	22	15	23	29	28	31	30	31	30	31	31	29
	Future Project	22	15	23	29	28	31	30	31	30	31	31	29
Above Normal	Baseline	24	17	23	26	25	31	30	31	30	31	30	26
	Project	24	17	23	26	25	31	30	31	30	31	30	26
	Future Baseline	24	17	23	26	25	31	30	31	30	31	30	26
	Future Project	24	17	23	26	25	31	30	31	30	31	30	26
Below Normal	Baseline	17	16	19	21	20	30	30	31	29	31	30	27
	Project	17	16	19	21	20	30	30	31	29	31	30	27
	Future Baseline	17	16	19	21	20	30	30	31	29	31	30	27
	Future Project	17	16	19	20	20	30	30	31	29	31	30	27
Dry	Baseline	20	19	23	22	20	29	30	31	29	29	31	29
	Project	20	19	23	21	20	28	30	31	29	29	31	29
	Future Baseline	20	19	23	22	20	29	30	31	29	29	31	29
	Future Project	20	19	23	21	19	28	30	31	29	29	31	29
Critically Dry	Baseline	20	11	15	15	15	25	28	28	25	25	25	20
	Project	20	11	15	14	13	24	28	28	25	26	25	20
	Future Baseline	20	11	15	15	15	25	28	28	25	25	25	20
	Future Project	20	11	15	14	13	24	27	28	25	25	25	20

Table 99. Changes in Monthly Average Number of Boatable Days by Water Year Type for Coloma to Greenwood Run – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	-1	0	-1	0	0	0	0	0	0
Critically Dry	0	0	0	-1	-2	-1	0	0	0	+1	0	0

Greyed out cells have a change in boatable days.

Table 100. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Coloma to Greenwood Run – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-2	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	+1	0	0	-5	+1	0	0	0	0	+1	0	0
Dry	0	0	0	-3	-1	-4	0	0	0	+1	0	0
Critically Dry	0	0	0	-6	-5	-4	-7	+1/-1	0	+3	+3	+2

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 101. Changes in Monthly Average Number of Boatable Days by Water Year Type for Coloma to Greenwood Run – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Dry	0	0	0	-1	-1	-1	0	0	0	0	0	0
Critically Dry	0	0	0	-1	-2	-1	-1	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 102. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for Coloma to Greenwood Run – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-1	0	-2	-2	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Below Normal	-1	0	0	-5	-1	-1	0	0	0	+1	0	0
Dry	0	0	0	-5	-6	-4	0	0	0	0	0	0
Critically Dry	0	0	-1	-6	-6	-6	-6	-2	+1	0	-1	+1

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

THE GORGE RUN

Existing Infrastructure Operations

Table 103. Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	20	10	12	10	10	6	3	0	1	19	29	28
	Project	20	10	12	10	10	6	3	0	1	19	29	28
	Future Baseline	20	10	12	10	10	6	3	0	1	19	29	27
	Future Project	20	10	12	10	10	6	3	0	1	19	29	27
Above Normal	Baseline	23	12	12	15	12	13	16	1	9	28	29	25
	Project	23	12	12	15	12	13	16	1	9	28	29	25
	Future Baseline	23	12	12	15	12	13	17	1	9	28	29	25
	Future Project	23	12	12	15	12	13	16	1	9	28	29	25
Below Normal	Baseline	16	9	12	9	10	11	10	8	20	30	30	25
	Project	16	9	12	8	10	11	10	8	20	30	30	25
	Future Baseline	16	9	12	9	10	11	10	8	21	30	30	25
	Future Project	16	9	12	8	10	11	10	8	20	30	30	25
Dry	Baseline	18	13	15	12	12	18	16	18	26	28	30	25
	Project	18	13	15	12	12	18	16	18	26	28	30	25
	Future Baseline	18	13	15	12	12	18	16	19	26	28	30	25
	Future Project	18	13	15	11	12	18	15	18	26	28	30	25
Critically Dry	Baseline	17	9	10	11	10	22	24	25	24	25	25	18
	Project	17	9	10	11	10	21	23	25	24	25	25	18
	Future Baseline	17	9	10	11	10	22	24	25	24	25	25	18
	Future Project	17	9	10	11	10	21	23	25	24	25	25	18

Table 104. Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Existing Infrastructure.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	2	8	18	17	25	27	30	28	12	2	0
	Project	1	2	8	17	17	25	27	30	28	12	2	0
	Future Baseline	1	2	8	18	17	25	27	30	28	12	2	0
	Future Project	1	2	8	17	17	25	27	30	28	12	2	0
Above Normal	Baseline	0	1	5	12	11	18	15	30	21	3	0	0
	Project	0	1	5	12	11	18	15	30	21	3	0	0
	Future Baseline	0	1	5	12	11	18	14	30	21	3	0	0
	Future Project	0	1	5	11	11	18	15	30	21	3	0	0
Below Normal	Baseline	1	3	4	10	8	20	20	24	9	0	0	0
	Project	1	3	4	10	8	20	20	24	9	0	0	0
	Future Baseline	1	3	4	10	8	19	20	24	9	0	0	0
	Future Project	1	3	4	10	8	20	20	24	9	0	0	0
Dry	Baseline	0	1	5	4	6	9	14	13	3	0	0	0
	Project	0	1	5	4	6	9	14	13	3	0	0	0
	Future Baseline	0	1	5	4	6	9	13	13	3	0	0	0
	Future Project	0	1	5	4	6	9	14	13	3	0	0	0
Critically Dry	Baseline	0	0	1	0	2	1	2	1	0	0	0	0
	Project	0	0	1	0	2	1	2	1	0	0	0	0
	Future Baseline	0	0	1	0	2	1	2	1	0	0	0	0
	Future Project	0	0	1	0	2	1	2	1	0	0	0	0

Table 105. Changes in Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	-1	-1	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 106. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	+1/-2	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	+1	0	0	-2	+1	0	-1	-1	-1	+1	0	0
Dry	0	0	0	0	+1/-1	+2/-1	+1	0	0	+1	+1	0
Critically Dry	0	0	0	+1/-3	-1	+2/-7	-3	+1/-1	0	0	0	+2

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 107. Changes in Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	-1	0	0	0	0	0
Below Normal	0	0	0	-1	0	0	0	0	-1	0	0	0
Dry	0	0	0	-1	0	0	-1	-1	0	0	0	0
Critically Dry	0	0	0	0	0	-1	-1	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 108. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-1	0	-1	+2/-4	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	-1	0	0	0	0	0
Below Normal	-1	0	0	-4	+1	-1	-1	-1	-2	+1	0	0
Dry	0	0	0	-5	+2/-1	0	-2	-1	0	+1	0	0
Critically Dry	0	0	0	+1/-3	-1	+2/-4	-2	+1/-1	+1	+1	0	+1/-1

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 109. Changes in Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 110. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs – Baseline versus Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	-1	+1	+1	0	+2	0	0	0	0
Dry	0	0	0	-2	-1	0	-1	+1	0	0	0	0
Critically Dry	0	0	0	-1	-1	+1/-3	+1	+1	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 111. Changes in Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-1	0	0	+1	0	0	0	0	0
Below Normal	0	0	0	0	0	+1	0	0	0	0	0	0
Dry	0	0	0	0	0	0	+1	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 112. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs – Future Baseline versus Future Project Conditions, Existing Infrastructure.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	-1	0	0	+1	0	0	0	0	0
Below Normal	0	0	0	-1	0	+1	0	+1	+1	0	0	0
Dry	0	0	0	-2	-2	0	+2/-1	+1	0	0	0	0
Critically Dry	0	0	0	-1	-1	-1	+1/-1	+1/-1	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Post-Construction Operations

Table 113. Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	20	10	12	10	10	6	3	0	1	19	29	28
	Project	20	10	12	10	10	6	3	0	1	19	29	28
	Future Baseline	20	10	12	10	10	6	3	0	1	19	29	27
	Future Project	20	10	12	10	10	6	3	0	1	19	29	28
Above Normal	Baseline	23	12	12	15	12	13	16	1	9	28	29	25
	Project	23	12	12	15	12	13	16	1	9	28	29	25
	Future Baseline	23	12	12	15	12	13	17	1	9	28	29	25
	Future Project	23	12	12	15	12	13	16	1	9	28	29	25
Below Normal	Baseline	16	9	12	9	10	11	10	8	20	30	30	25
	Project	16	9	12	8	10	11	10	8	20	30	30	25
	Future Baseline	16	9	12	9	10	11	10	8	21	30	30	25
	Future Project	16	9	12	8	10	11	10	8	20	30	30	25
Dry	Baseline	18	13	15	12	12	18	16	18	26	28	30	25
	Project	18	13	15	12	12	18	16	18	26	28	30	25
	Future Baseline	18	13	15	12	12	18	16	19	26	28	30	25
	Future Project	18	13	15	11	12	18	15	18	26	28	30	25
Critically Dry	Baseline	17	9	10	11	10	22	24	25	24	25	25	18
	Project	17	9	10	11	9	20	24	25	24	25	25	18
	Future Baseline	17	9	10	11	10	22	24	25	24	25	25	18
	Future Project	17	9	10	11	9	20	24	25	24	25	25	18

Table 114. Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs under Baseline, Project, Future Baseline, and Future Project Conditions, Post-Construction Operations.

Water Year Type		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	Baseline	1	2	8	18	17	25	27	30	28	12	2	0
	Project	1	2	8	17	17	25	27	30	28	12	2	0
	Future Baseline	1	2	8	18	17	25	27	30	28	12	2	0
	Future Project	1	2	8	17	17	25	27	30	28	12	2	0
Above Normal	Baseline	0	1	5	12	11	18	15	30	21	3	0	0
	Project	0	1	5	12	11	18	15	30	21	3	0	0
	Future Baseline	0	1	5	12	11	18	14	30	21	3	0	0
	Future Project	0	1	5	12	11	18	15	30	21	3	0	0
Below Normal	Baseline	1	3	4	10	8	20	20	24	9	0	0	0
	Project	1	3	4	10	8	20	20	24	9	0	0	0
	Future Baseline	1	3	4	10	8	19	20	24	9	0	0	0
	Future Project	1	3	4	10	8	19	20	24	9	0	0	0
Dry	Baseline	0	1	5	4	6	9	14	13	3	0	0	0
	Project	0	1	5	4	6	9	14	13	3	0	0	0
	Future Baseline	0	1	5	4	6	9	13	13	3	0	0	0
	Future Project	0	1	5	4	6	9	14	13	3	0	0	0
Critically Dry	Baseline	0	0	1	0	2	1	2	1	0	0	0	0
	Project	0	0	1	0	2	1	2	1	0	0	0	0
	Future Baseline	0	0	1	0	2	1	2	1	0	0	0	0
	Future Project	0	0	1	0	2	1	2	1	0	0	0	0

Table 115. Changes in Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	-1	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	-1	-2	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 116. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	+2/-2	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	+1	0	0	0	+1	+1	0	-1	-1	+1	0	0
Dry	0	0	0	0	+1/-2	-1	-1	+1	-1	+2	+1	0
Critically Dry	0	0	0	-3	-2	+1/-5	-2	+1/-1	-1	0	0	+2

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 117. Changes in Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	0	0	0	0	0	0	0	0	+1
Above Normal	0	0	0	0	0	0	-1	0	0	0	0	0
Below Normal	0	0	0	-1	0	0	0	0	-1	0	0	0
Dry	0	0	0	-1	0	0	-1	-1	0	0	0	0
Critically Dry	0	0	0	0	-1	-2	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 118. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for the Gorge Run at 800 to 2,000 cfs – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	-1	0	0	+3/-2	0	0	0	0	0	0	0	0
Above Normal	0	0	+1	+1	-1	+1	+2	-1	0	0	0	0
Below Normal	-1	0	0	-2	+1/-1	+1	+1/-1	0	+1/-1	+1	0	0
Dry	0	0	0	-3	+2/-4	-1	-2	+3/-3	0	0	0	0
Critically Dry	0	0	-1	-3	-2	+1/-5	+1/-1	-2	+1/-1	0	0	+1/-1

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 119. Changes in Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	0	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 120. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs – Baseline versus Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	0	0	-1	0	0	0
Below Normal	0	0	0	-1	+1	+1	0	+2	0	0	0	0
Dry	0	0	0	-2	-1	0	-1	+1	0	0	0	0
Critically Dry	0	0	0	-1	-1	+1/-4	+1	+1	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

Table 121. Changes in Monthly Average Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	0	-1	0	0	0	0	0	0	0	0
Above Normal	0	0	0	0	0	0	+1	0	0	0	0	0
Below Normal	0	0	0	0	0	0	0	0	0	0	0	0
Dry	0	0	0	0	0	0	+1	0	0	0	0	0
Critically Dry	0	0	0	0	0	0	0	0	0	0	0	0

Greyed out cells have a change in boatable days.

Table 122. Maximum Change in the Monthly Number of Boatable Days by Water Year Type for the Gorge Run at 2,000 to 10,000 cfs – Future Baseline versus Future Project Conditions, Post-Construction Operations.

Water Year Type	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept
Wet	0	0	+1	-1	0	0	0	0	0	-1	0	0
Above Normal	0	0	0	0	0	+1	+1	0	0	0	0	0
Below Normal	0	0	0	-1	0	+1/-2	-1	+2	+1	0	0	0
Dry	0	0	0	-2	-2	0	+2/-1	+1	0	0	0	0
Critically Dry	0	0	0	-1	-1	+1/-2	+1	+1	0	0	0	0

Greyed out cells have a change in boatable days.

The maximum change in the number of boatable days in each month would not necessarily occur within the same year.

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