Weekly Assessment of CVP and SWP Delta Operations

November 3, 2025

Delta Cross Channel is the current controlling condition; length-at-date (LAD) winter-run are continuing to be captured at delta monitoring locations at increased rates, water quality is met per D-1641 and DCC gates were closed on October 30, 2025.

Executive Summary

Consistent with Table 3-6 of the Proposed Action, the Knights Landing Catch Index exceeded daily between October 30 and November 3 and the Sacramento River Catch Index exceeded on October 31 and November 3. Winter-run Chinook salmon juvenile production has been high with over 100 captures of LAD winter-run in delta entry monitoring locations since October 29. DCC gate closure protect winter-run Chinook salmon from lower interior Delta survival and could reduce facility entrainment risk and salvage later this water year.

Observed Rock Slough salinity conditions suggest continued improvement of water quality conditions meeting D-1641 and projected modeling results indicate salinity below the levels of concern. Based on updated Chloride measurements, improved water quality elsewhere in the delta, and large numbers of winter-run outmigrants, Reclamation will continue a DCC gate closure.

Operational and Regulatory Conditions

For more information see Weekly Fish and Water Operation Outlook document for November 4 - November 10.

Biology, Distribution and Evaluation of Winter run Chinook salmon

Delta Life Stages

Juvenile

Historic Distribution

Table 1. Average percent presence by October 19 with 95% confidence intervals of annual emigrating population of juvenile Winter-run Chinook salmon. From: WY2026 Current Conditions for the Salmon Monitoring Team SaMT: SacPAS Sacramento Prediction and Assessment of Salmon and other fishes. Last updated 11/03/2025

Species	Red Bluff Diversion Dam	Tisdale RST	Knights Landing RST	Sac Trawl (Sherwood) Catch Index	Chipps Island Trawl Catch Index	Salvage
Chinook, LAD Winter-run, Unclipped	78% (72%,84%) BY: 2014 - 2024	16% (4%,28%) BY: 2014 - 2024	16% (3%,28%) BY: 2014 - 2024	7% (-8%,21%) BY: 2014 - 2024	1% (-1%,3%) BY: 2014 - 2024	0% (0%,0%) WY: 2016 - 2025

Current Distribution

Flow and temperature environmental surrogates for winter-run Chinook salmon migration including Mill and Deer creeks flows and Knights Landing temperatures suggest suitable conditions for migration. Flows exceeded 95 cfs for both Mill and Deer creeks, but have been stable with no daily change in the past few days. Flow at Wilkins Slough, has been stable with no rapid increases (< 50%) and has not exceeded 7,500 cfs. Since the beginning of October, the minimum daily estimated number of winter-run Chinook salmon passing Red Bluff Diversion Dam is 16,076, with multiple days of estimates greater than 100,000 (Figure 1) equaling a cumulative passage of approximately 2.1 million fry.

Subsequently LAD winter-run began arriving at delta entry RSTs as early as September 10 at Tisdale and September 18 at Knights Landing, with increasing numbers associated with recent rain events in October. CDFW reported a total count of 113 LAD winter-run Chinook salmon captured at Knights Landing rotary screw trap from October 29-November 3. This resulted in a Knights Landing Catch Index (KLCI) exceedances from October 30-November 3 (Table 2; Figure 2).

Table 2. Knight's Landing (KLCI) and Sacramento Seine and Trawl (SCI). Catch indices for juvenile salmonid migration were triggered on 10/30, 10/31 and 11/01. N/A indicates that Sacramento Trawls and Seines for SCI were not conducted. *indicates dates that KLCI and/or SCI were exceeded.

Date	Knights Landing RST: Winter Chinook: Catch Index	Knights Landing RST: Older Chinook: Catch Index	Sacramento Trawls: Older Chinook: Catch Index	Sacramento Beach Seines: Older Chinook: Catch Index
2025-10-29	2.4	2.4	0	0
2025-10-30*	5.6	5.6	N/A	N/A
2025-10-31*	7.2	7.2	0	12.0
2025-11-01*	19.2	19.2	N/A	N/A
2025-11-02*	14.1	14.1	N/A	N/A
2025-11-03*	21.2	21.2	0	13.0

No LAD winter run Chinook salmon have been observed at the Sacramento trawls but USFWS reported Sacramento River Index (SCI) exceedances from Sacramento Seines for October 31 and November 3 (Table 2; Figure 2). Survival, Travel Time, and Routing Simulation (STARS) predicts low overall survival (~0.2), interior routing (~0.13), and travel time ~6 d (Figure 3).

See WY 2026 current conditions for the Salmon Monitoring Team: WY2026 Current Conditions for the Salmon Monitoring Team SaMT: SacPAS Sacramento Prediction and Assessment of Salmon and other fishes for data.

No loss of natural-origin winter-run Chinook Salmon (by LAD) has occurred in the past week at the State or Federal fish salvage facilities. Loss of natural-origin winter-run Chinook Salmon at the Central Valley Project (CVP) and State Water Project (SWP) fish collection facilities is unlikely to occur over the next week. However, DCC gates may allow for increased routing of winter-run into the interior delta making fish more vulnerable to loss at the facilities.

Delta Cross Channel Gates

The DCC gates are closed.

Monitoring Teams Summary

The assessment was shared with SaMT and discussed during the meeting. There were no issues raised to WOMT by SaMT.

Water Quality

The Chloride (Cl-) at Contra Costa Canal at Pumping Plan #1 (CDEC ID: INB) has exceeded 250 mg/l since Oct. 20 (CCWD ROCK SLOUGH PP NEAR BRENTWOOD (INB)), but due to salinity sampling instrumentation challenges at Rock Slough, dissolved chloride in Figure 5 have been reported based on EC regression relationships. However, Dissolved Chloride measured from grab samples in the laboratory on 10/26 shows Rock Slough chlorides have improved to 250 mg/l (CCWD communication 10/28). Overall, observed salinity conditions have improved, recent measured chlorides suggest improvement of delta conditions equal to regulatory requirements, and projected modeling results indicate salinity below the levels of concern.

Water quality criteria are currently being met at locations listed in Table 3-7 in Appendix 2 of the Biological Opinion (see Figures 4 & 6-9). Water qualities levels of concern and winter-run chinook salmon outmigration continue to be monitored.

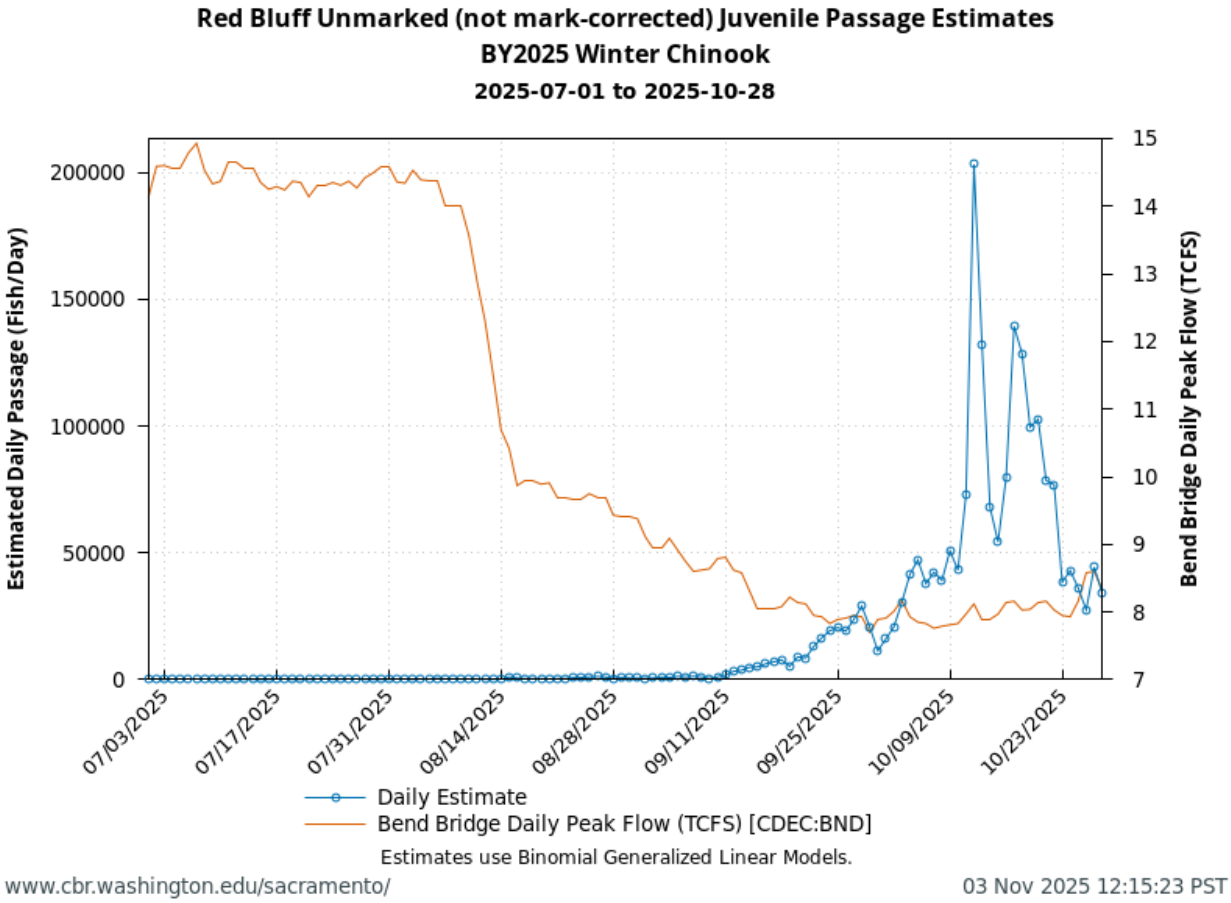

Figure 1. Unmarked juvenile winter-run Chinook salmon passage estimates at Red Bluff Diversion Dam for brood year 2025. Daily estimated juvenile passage (Fish/Day, left Y-axis, blue line) is shown from July 3 to October 28, 2025. The

estimates are plotted against the Bend Bridge Daily Peak Flow (TCFS, right Y-axis, orange line). The passage estimates represent unmarked juveniles and are not mark-corrected. The outmigration is modeled using Binomial Generalized Linear Models (Source: SacPAS Central Valley Prediction and Assessment of Salmon).

Figure 1 is a line graph showing daily unmarked juvenile winter-run Chinook passage estimates at Red Bluff Diversion Dam from July 1 to October 28, 2025. The left y-axis shows estimated daily passage, which begins around 200,000 fish per day in early July and declines steadily through late summer, reaching below 50,000 by early September and tapering near zero by late October. The right y-axis shows Bend Bridge Daily Peak Flow (TCFS), which remains between 7-9 TCFS through most of the period, then increases sharply in mid-October to peaks above 14 TCFS.

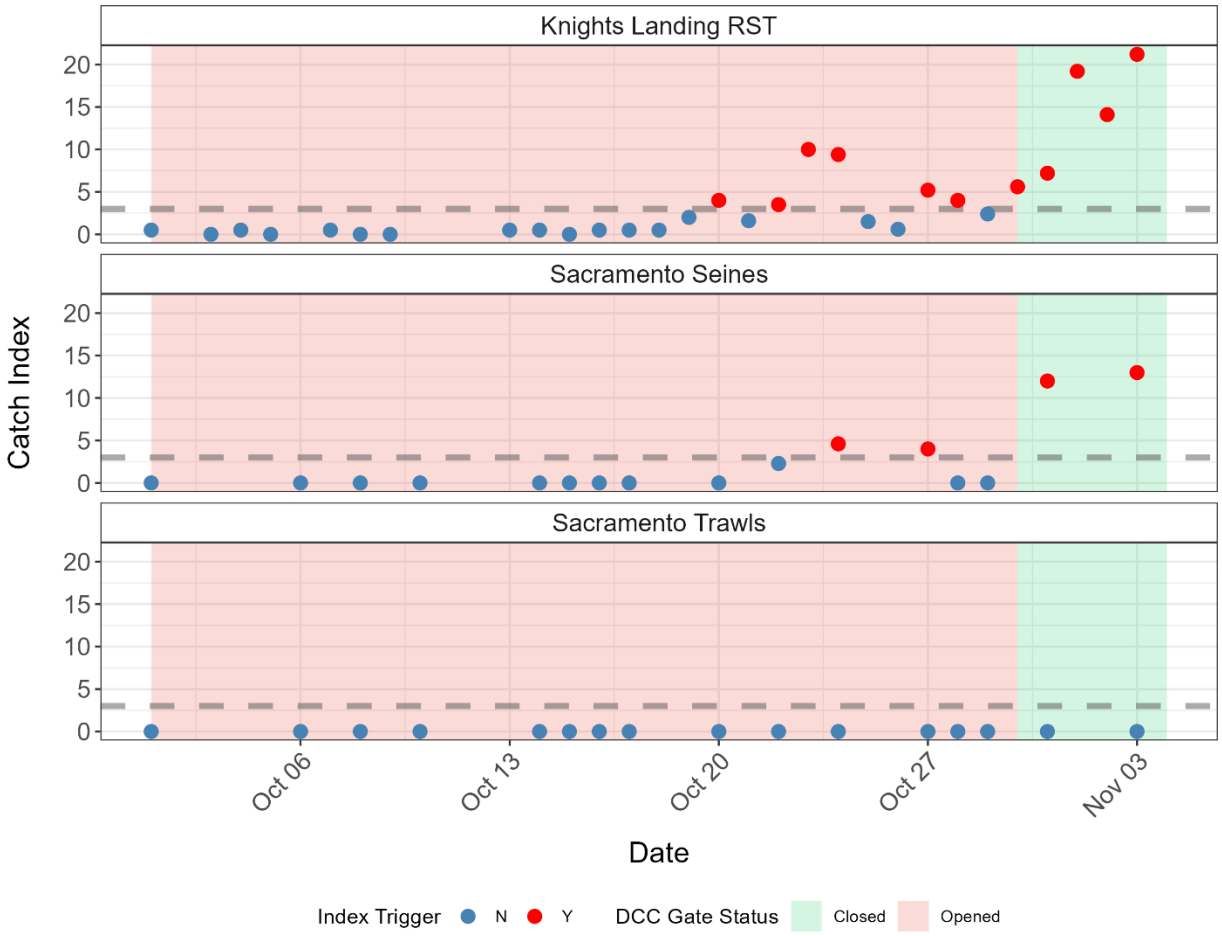

Figure 2. Summary of KLCI and SCI catch indices and DCC gate operations. Red shaded area indicates DCC gates are open, green shaded indicates closed DCC gates, the horizontal dashed line represents catch index threshold to inform DCC gate operation, blue circles represent daily catch indices below that threshold, and red circles indicate daily catch indices that exceed that threshold.

Figure 2 shows three panels summarizing daily catch indices from Knights Landing RST, Sacramento Seines, and Sacramento Trawls from October 6 to November 3, shown with Delta Cross Channel (DCC) gate status. Red shading indicates periods when DCC gates are open, and green shading indicates periods when gates are closed. The dashed line in each panel shows the catch index threshold used to inform operations. In the Knights Landing panel, catch indices remain near zero in early October, then rise beginning around October 20, with several days exceeding the threshold in late October and early November. Sacramento Seine indices remain near zero until late October, when a few values exceed the threshold. Sacramento Trawl indices stay near zero for the entire period with no days above the threshold. The increase in catch activity at Knights Landing occurs shortly after the transition from open to closed gate status.

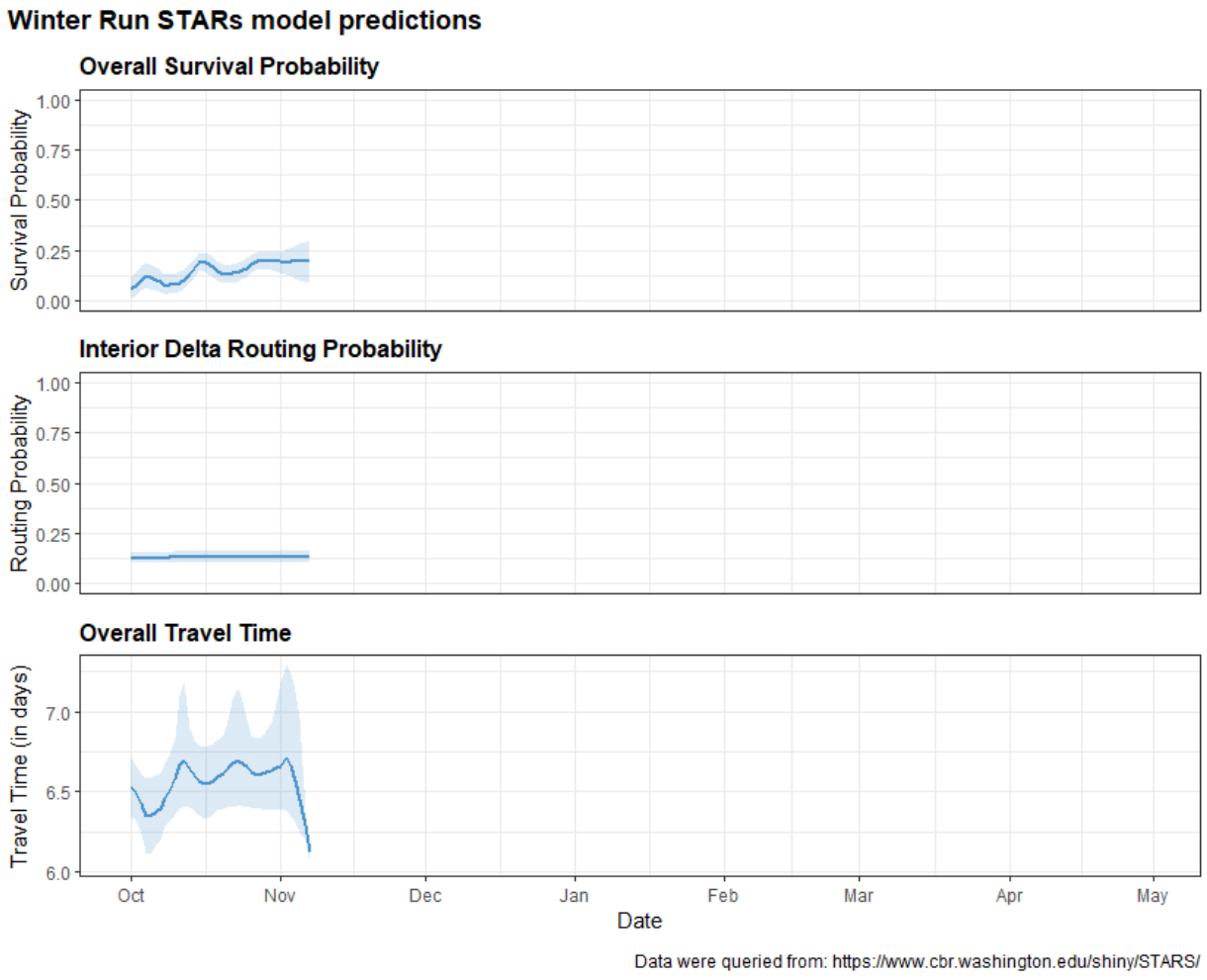

Figure 3. Survival, timing, and routing simulation (STARS) model predictions for the Sacramento River through 11/7.

Figure 3 is a three-panel line chart titled “Winter Run STARs model predictions.” The first panel shows Overall Survival Probability from early October to early November, with a blue line fluctuating between roughly 0.1 and 0.3 and a light-blue confidence band around it. The second panel shows Interior Delta Routing Probability, which remains nearly constant at approximately 0.15 over the

same time period. The third panel shows Overall Travel Time (in days), with values between about 6 and 7.5 days and wider uncertainty bands. The x-axis for all panels spans October through May, though data are only present in October and early November.

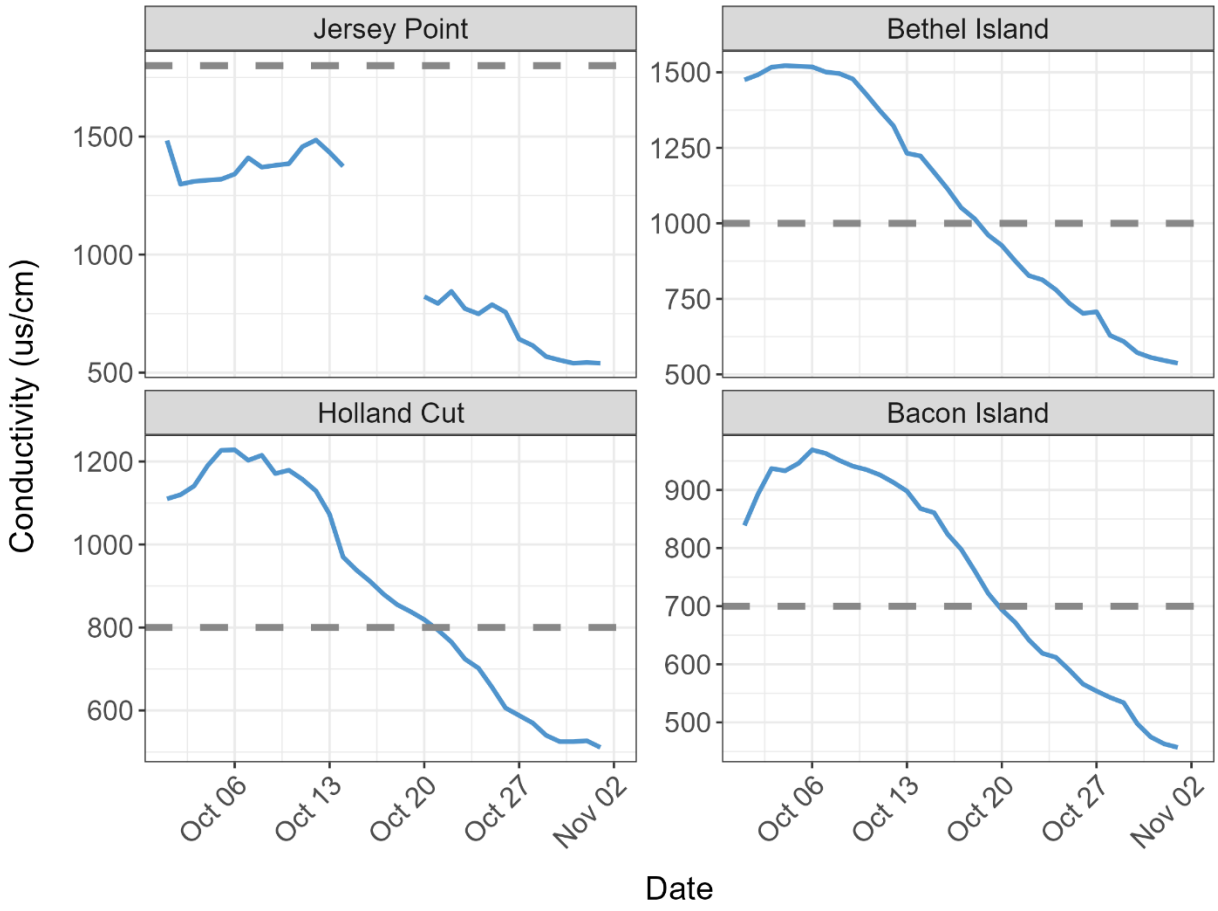

Figure 4. Conductivity (umhos/cm) at Jersey Point, Bethel Island, Holland Cut, and Bacon Island with associated standards thresholds (horizontal dashed line).

Figure 4 is a four-panel figure showing line charts of conductivity over time for four Delta locations: Jersey Point, Bethel Island, Holland Cut, and Bacon Island. Each p0anel shows a declining conductivity trend through October into early November. At Jersey Point, values fluctuate around 1,300-1,500 umhos/cm in early October, then decline steadily to below 600 umhos/cm by November 2; the threshold line is at 1,800 umhos/cm. At Bethel Island, conductivity begins near 1,500 umhos/cm and decreases consistently throughout the month, crossing below the 1,000 umhos/cm threshold mid-October and reaching about 550 umhos/cm by November. Holland Cut values start near 1,150 umhos/cm, peak around 1,220 umhos/cm, then steadily decline to around 600 umhos/cm by early November, with a threshold of 800 umhos/cm. Bacon Island shows a similar downward pattern, starting near 850 umhos/cm, dropping below the 700 umhos/cm threshold in mid-October, and ending below 500 umhos/cm.

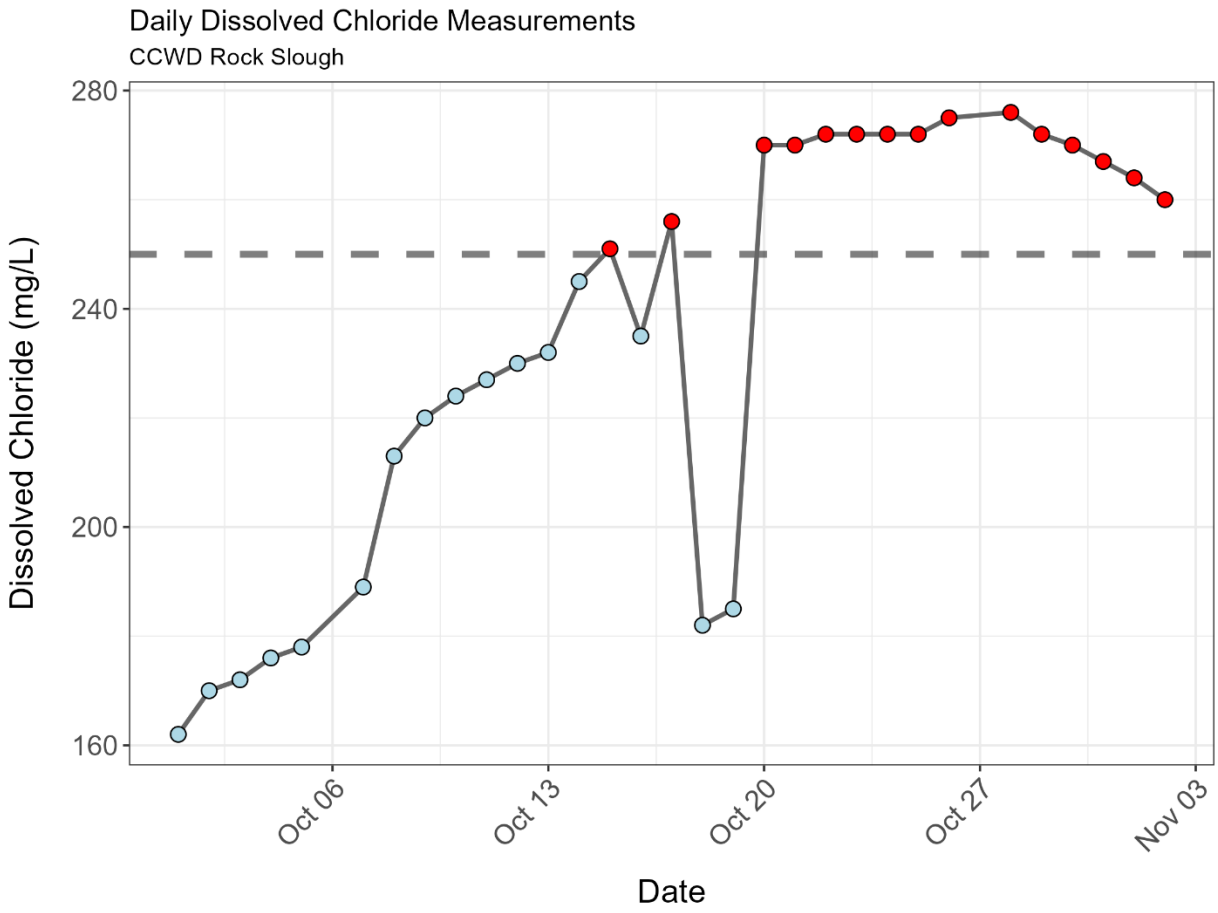

Figure 5. Dissolved Chloride (mg/L) measured at Rock Slough Pumping Plant intake. Red circles indicate exceedance of d-1641 Dissolved Chloride standard of 250 mg/L.

Figure 5 is a line chart titled “Daily Dissolved Chloride Measurements – CCWD Rock Slough.” The y-axis shows dissolved chloride in mg/L, and the x-axis shows dates from early October to early November. Chloride concentrations rise from about 165 mg/L in early October to just under 250 mg/L by mid-October. After a brief drop to around 185 mg/L, values increase sharply and then remain elevated between roughly 270 and 278 mg/L through late October and early November. A horizontal dashed line marks the 250 mg/L d-1641 standard. Red points show days when chloride concentrations exceed this 250 mg/L threshold; these exceedances begin after October 20 and continue for the remainder of the period.

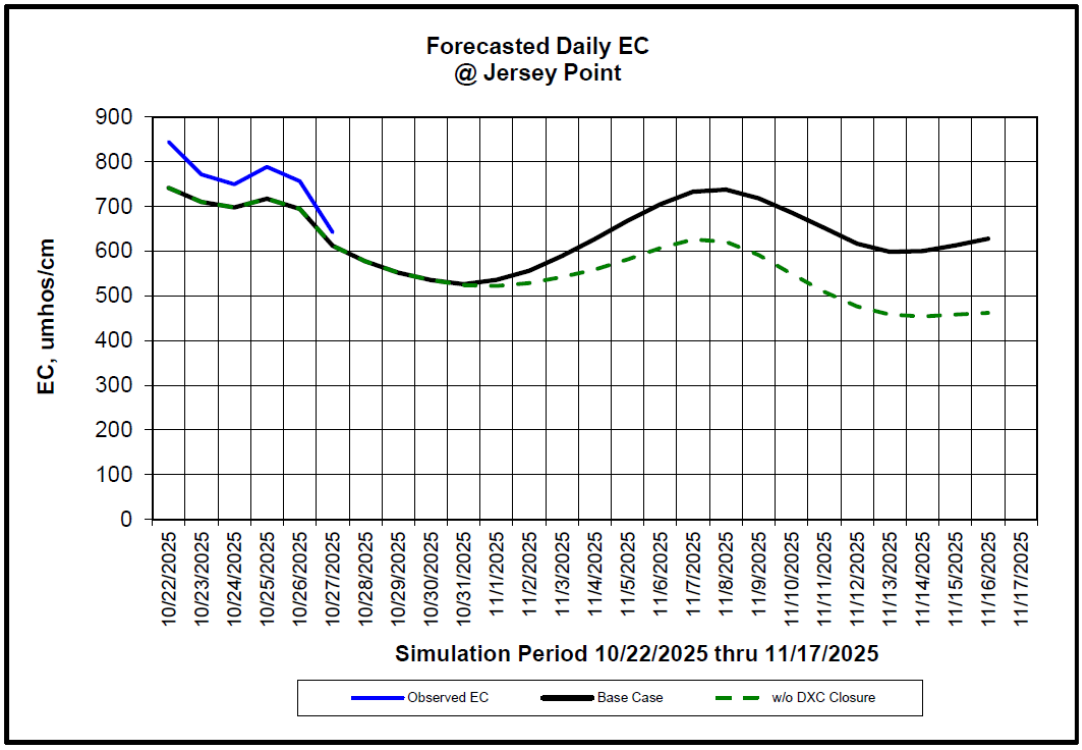

Figure 6. DSM2 EC modeling at Jersey Pt. Water quality concern level is 1800 umhos/cm. Updated 10/28/25.

Figure 6 is a line graph showing observed and modeled electrical conductivity at Jersey Point from October 22 to November 17, 2025. Observed EC declines from about 850 to 650 umhos/cm. The modeled base case and “without DXC closure” scenarios show similar seasonal patterns, with the base case consistently higher.

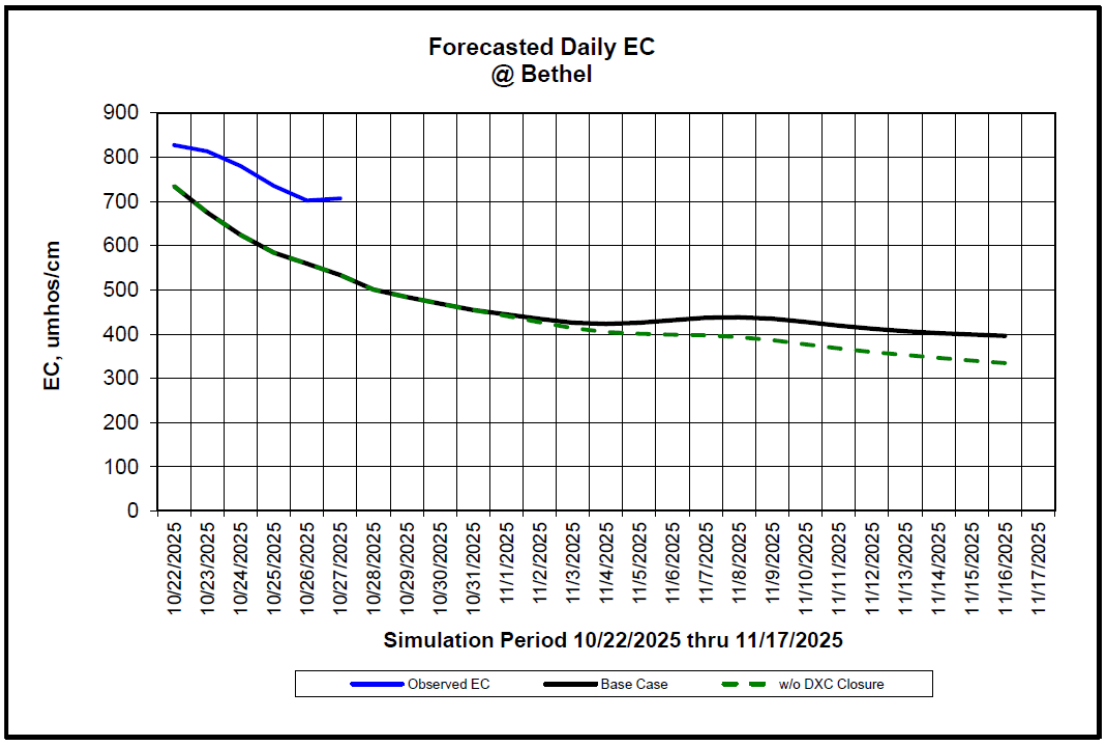

Figure 7. DSM2 EC modeling at Bethel. Water quality concern level is 1000 umhos/cm. Updated 10/28/25.

Figure 7 is a line graph showing observed and modeled electrical conductivity at Bethel from October 22 to November 17, 2025. Observed EC declines from about 800 to 700 umhos/cm. The modeled base case and “without DXC closure” scenarios both decrease through the period, with the base case slightly higher.

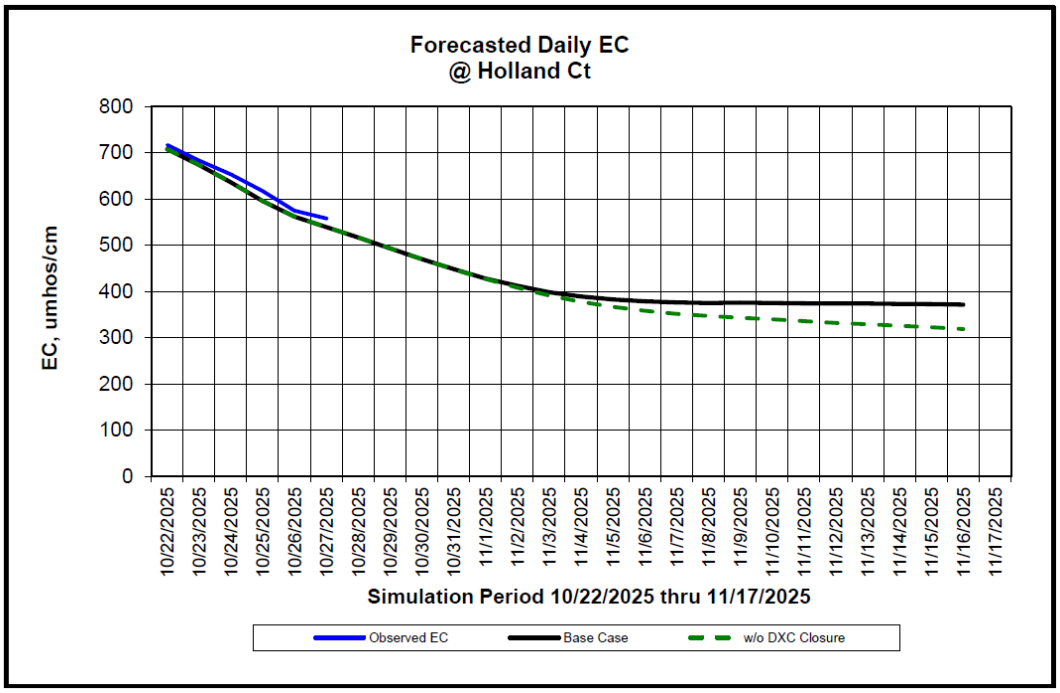

Figure 8. DSM2 EC modeling at Holland Cut. Water quality concern level is 800 umhos/cm. Updated 10/28/25.

Figure 8 is a line graph showing observed and modeled electrical conductivity at Holland Cut from October 22 to November 17, 2025. Observed EC declines from about 720 to 550 umhos/cm. The modeled base case and “without DXC closure” scenarios steadily decrease through the period, with the base case slightly higher.

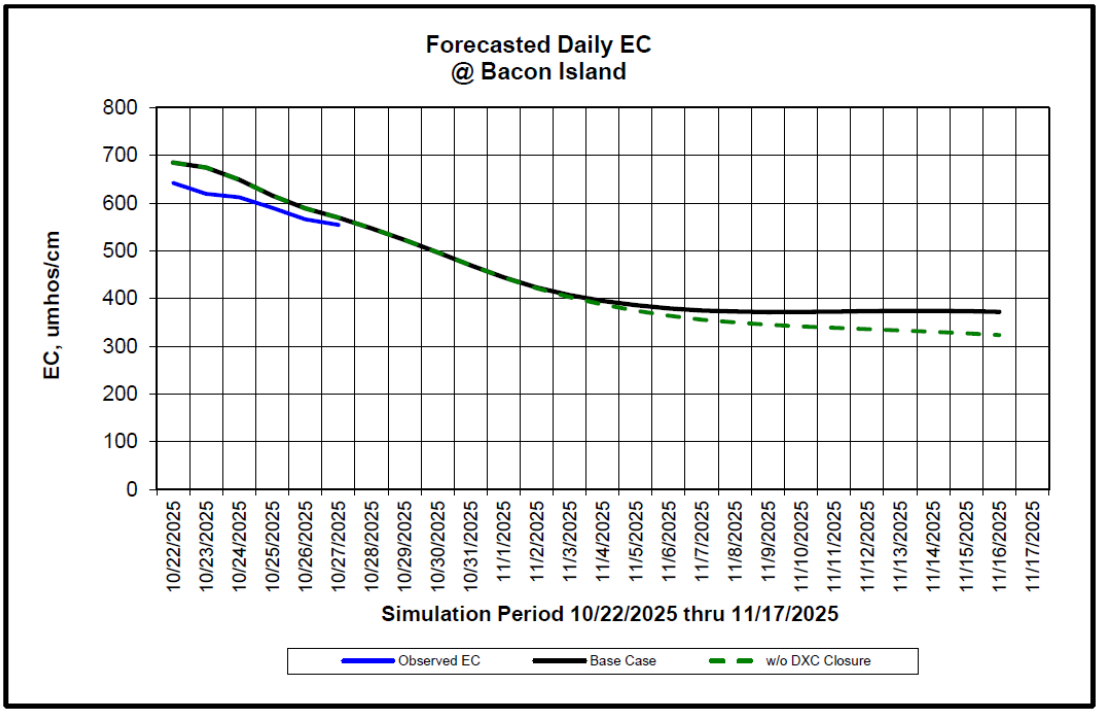

Figure 9. DSM2 EC modeling at Bacon Island. Water quality concern level is 700 umhos/cm. Updated 10/28/25.

Figure 9 is a line graph showing observed and modeled electrical conductivity at Bacon Island from October 22 to November 17, 2025. Observed EC declines from about 650 to 575 umhos/cm. The modeled base case and “without DXC closure” scenarios both decrease through the period, with the base case slightly higher.