

State Water Project Incidental Take Permit Risk Assessment for Delta Smelt and Longfin Smelt

Section 1: Overview

Date: 01 June 2021

Life Stages Present:

Delta Smelt: Adult, Juvenile, Larvae

Longfin Smelt: Adult, Juvenile, Larvae

Advice to Water Operations Management Team (WOMT):

The Smelt Monitoring Team (SMT) does not recommend any OMR Index (OMRI) limits for the protection of Longfin Smelt (LFS) or Delta Smelt (DS). The SMT determined that a recommendation would not change the salvage trajectory of LFS in the south Delta. No diversion restrictions are in place for Barker Slough Pumping Plant (BSPP) operations under Condition of Approval 8.12. The SMT also agreed that larval sampling could be discontinued at both facilities.

Risk Assessment:

Delta Smelt: Based on distribution patterns over the past decade and rare detections in this water year, DS are unlikely to be prevalent in the South Delta. Limited detection data supports DS being present in the lower Sacramento River and in the Sacramento Deep Water Ship Channel (SDWSC). The likelihood of DS adult entrainment is low due to seasonal timing. The likelihood of larval entrainment is decreasing compared to the previous seven days due to warming water temperature and seasonal timing. The most recent detections of Delta Smelt were in the SDWSC (8) and the Lower Sacramento River (1). The less negative OMR Index (OMRI) values decrease the potential for entrainment of Delta Smelt into the South Delta.

Condition of Approval 8.12 is not controlling BSPP operations. No DS have been detected at station 716 during recent sampling. The period in which DS protection could control BSPP operations extends through June 30th. The period in which LFS detections could control BSPP operations ended on 3/31/2021.

Longfin Smelt: Persistent dry conditions continue, and exports are projected to remain at or near minimum levels. 20mm Survey 5 was in the field from 5/17/2021 through 5/20/2021 and sampled 9 of the 12 stations listed in Condition of Approval 8.4.2. Stations 910, 912 and 919 were not sampled due to an equipment malfunction. One LFS (FL = 20 mm) was collected at station 809 near Jersey Point in the lower San Joaquin River. No LFS were reported at the remaining south and central Delta stations. EDSM reported that sample processing is ongoing for samples collected from 5/24/2021 through 5/28/2021. Preliminary results indicate that

juvenile LFS were collected in Suisun Marsh. Updated data will be reported during the next SMT call. Chipps Island Trawl Survey collected 1 juvenile LFS (FL 31 mm) on 5/26/2021 and one adult LFS (FL = 93 mm) on 5/28/2021.

Risk of entrainment into the export facilities is low for LFS outside of Old and Middle River. LFS that are still present outside of or within Clifton Court Forebay (CCF), or within the immediate vicinity of the federal export facility, are likely to be entrained, however a recommendation to restrict OMRI to levels more positive than projected operations is not likely to prevent further salvage. The SMT expects LFS salvage to end in the near future due to increased water temperature. Juvenile LFS detections are rare above 22° C (72° F) ([Jeffries 2016](#)). However, salvage may increase temporarily before ending for the season as juveniles seek cooler water temperatures. Salvage did increase over 3 days (May 27th– May 29th). This may be due to increasing water temperature in CCF.

Salvage operations will not occur while Banks pumping plant is offline May 31st through June 4th. Sixty-two juvenile LFS (FL = 33-53 mm) were salvaged at the state Skinner Delta Fish Protective Facility from 5/24/2021 through 5/31/2021. None were salvaged at the federal Tracy Fish Collection Facility during the same period. To date, 677 juvenile LFS have been salvaged at the state facility and 188 juvenile LFS have been salvaged at the federal facility. Salvage estimates are expanded based on sampling effort.

Section 1-A: Sacramento River and Confluence

Risk of entrainment into the central Delta and export facilities for DS and LFS in Sacramento River (8.1.5.2 C ii, iii, iv)

- Exposure Risk (Hydrology):
 - Delta Smelt: Low
 - Longfin Smelt: Low
 - Young of year are present in the Sacramento River, but are at low risk of entrainment into the central Delta.
- Routing Risk (Behavior and life history):
 - Delta Smelt: Low
 - Longfin Smelt: Low risk of LFS adults moving from the confluence into the Central Delta of their own volition. Water temperature has exceeded that typically associated with LFS spawning.
- Overall Entrainment Risk
 - Delta Smelt: Low
 - Longfin Smelt: Low

Section 1-B: Central Delta

Risk of entrainment into the export facilities for DS and LFS in the central Delta

- Exposure Risk:
 - Delta Smelt: Low

- Longfin Smelt: Low risk for LFS in Franks Tract and farther downstream, moderate risk for LFS in the OMR corridor.
- Change in exposure from previous week:
 - Delta Smelt: Slightly elevated due to seasonal timing
 - Longfin Smelt: Risk has decreased for LFS outside of the OMR corridor.
- Reporting OMRI (*Number and range of OMRI bins will vary based on anticipated hydrology and operations*)
 - OMRI is projected to range from -1,300 cfs to -1,800 cfs.
 - A recommendation to limit OMRI to -1,250 cfs is not expected to change the salvage trend when compared to the most negative OMRI based on projected operations.

Section 2: Basis for Advice

The 2020 [Incidental Take Permit for Long-Term Operation of the State Water Project in the Sacramento-San Joaquin Delta 2081-2019-066-00](#) (ITP) states that advice to WOMT shall be based the following Conditions of Approval:

List relevant Condition of Approval number and title based on species/life stage, time of year, etc.

8.1.5.2 Smelt Monitoring Team Risk Assessment

8.4.2 Larval and Juvenile Longfin Smelt Entrainment Protection.

From January 1 through June 30, when a single Smelt Larval Survey (SLS) or 20 mm Survey (20 mm) sampling period exceeds one of the following thresholds:

- LFS larvae or juveniles found in four or more of the 12 SLS or 20 mm stations in the central Delta and south Delta (Stations 809, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918, 919), or
- LFS catch per tow exceeds five LFS larvae or juveniles in two or more of the 12 stations in the central Delta and south Delta (Stations 809, 812, 815, 901, 902, 906, 910, 912, 914, 915, 918, 919).

Permittee shall restrict south Delta exports for seven consecutive days to maintain a seven-day average OMRI no more negative than -5,000 cfs. Permittee shall also immediately convene the SMT to conduct a risk assessment (see Condition of Approval 8.5.1.2) to assess the risk of larval and juvenile LFS entrainment into the South Delta Export Facilities, determine if an OMRI flow restriction is warranted, and recommend an OMRI flow limit between -1,250 cfs and -5,000 cfs. The SMT risk assessment and operational advice shall be reviewed by the WOMT (Condition of Approval 8.1.3) via the Collaborative Real-time Decision-making process (Condition of Approval 8.1.4). Permittee shall operate to the export restriction and OMRI flow target approved through Conditions of Approval 8.1.3 and 8.1.4. Each week the SMT shall convene to conduct a new risk assessment and determine whether to maintain, or off ramp from, export restrictions based on

the risk to LFS, or until the DS and LFS off-ramp has been met as described in Condition of Approval 8.8 (End of OMR Management).

From January 1 through June 30, DWR and CDFW SMT staff shall conduct weekly, or more often as needed, risk assessments (see Condition of Approval 8.5.1.2) to assess the risk of larval and juvenile LFS entrainment into the South Delta Export Facilities. As a part of the risk assessment, the SMT shall provide advice on the appropriate OMRI flow targets to minimize LFS entrainment or entrainment risk, or both. The SMT shall provide its advice to WOMT (Condition of Approval 8.1.3) and use the Collaborative Approach to Real-time Risk Assessment process described in Condition of Approval 8.1.4 to determine if an OMRI flow restriction is warranted and determine an OMRI flow limit between -1,250 cfs and -5,000 cfs. The OMRI flow limit shall be in place until the next risk assessment conducted by the SMT determines that it is no longer necessary to minimize take or related impacts to LFS, or until the DS and LFS off-ramp has been met as described in Condition of Approval 8.8 (End of OMR Management).

8.5.2 Larval and Juvenile Delta Smelt Protection.

If the five-day cumulative salvage of juvenile DS at the CVP and SWP facilities is greater than or equal to one plus the average prior three years' FMWT index (rounded down), Permittee shall restrict south Delta exports for seven consecutive days to maintain a seven-day average OMRI no more negative than -5,000 cfs. Additionally, if the five-day cumulative salvage threshold is met or exceeded, Permittee shall immediately convene the SMT to conduct a risk assessment (Condition of Approval 8.1.5.2) and determine the future risk of entrainment and take of larval and juvenile DS. The SMT may provide advice to further restrict south Delta exports to maintain a more positive OMRI than -5,000 cfs. The SMT may provide advice for further restrictions within three risk categories:

- Low risk: Limit OMRI between -4,000 cfs to -5,000 cfs
- Medium risk: Limit OMRI between -2,500 cfs to -4,000 cfs
- High risk: Limit OMRI between -1,250 cfs to -2,500 cfs

The duration and magnitude of operational advice shall be provided to the WOMT (Condition of Approval 8.1.3) and decisions shall be made following the process described in Condition of Approval 8.1.4 (Collaborative Real Time Risk Assessment). When conducting risk assessments to evaluate the risk of entrainment and take of juvenile DS, the SMT shall evaluate the following information sources, in addition to any other models or surveys they deem appropriate and those listed in Condition of Approval 8.1.5.2:

- Results from a CDFW approved DS life cycle model.
- DS recruitment levels identified by the SMT using the CDFW- approved life cycle model that links environmental conditions to recruitment, including factors related to loss as a result of entrainment such as OMRI flows. In this context, recruitment is defined as the estimated number of post-larval DS in June per number of spawning adults in the prior February-March period.

- Hydrodynamic models and forecasts of entrainment informed by the EDSM or other relevant survey data to estimate the percentage of larval and juvenile DS that could be entrained.

If expanded salvage at the CVP and SWP facilities of juvenile DS exceeds 11 within a three-day period under this condition, Permittee shall restrict south Delta exports for seven consecutive days to maintain a seven-day average OMRI no more negative than -3,500 cfs. If juvenile DS continue to be salvaged at the CVP and SWP facilities during the seven days of OMRI restrictions, then Permittee shall continue restrictions and request a risk assessment by the SMT to determine if additional advice and subsequent restrictions are warranted and provide advice to WOMT (see Condition of Approval 8.1.3) and follow the decision-making process described in Condition of Approval 8.1.4.

8.8 End of OMR Management.

Permittee shall operate the Project to meet the requirements included in Conditions of Approval 8.3.1, 8.3.3, 8.4.1, 8.4.2, 8.5.1, 8.5.2, 8.6.1, 8.6.2, 8.6.3, and 8.6.4 to ensure that entrainment and take of Covered Species is minimized during the OMR Management season through June 30, or until the following species-specific off-ramps occur:

- LFS and DS: Daily mean water temperature at CCF is greater than 25°C (77° F) for three consecutive days.
- CHNWR and CHNSR:
 - More than 95% of CHNWR and CHNSR have migrated past Chipps Island as determined by the Salmon Monitoring Team, AND
 - Daily average water temperature at Mossdale exceeds 22.2°C (72° F) for 7 non-consecutive days in June, AND
 - Daily average water temperature at Prisoner's Point exceeds 22.2°C (72° F) for 7 non-consecutive days in June.

8.12 Barker Slough Pumping Plant Longfin and Delta Smelt Protection.

Permittee shall operate the BSPP to protect larval LFS from January 15 through March 31 of dry and critical water years. Permittee shall operate to protect larval DS from March 1 through June 30 of dry and critical years. If the water year type changes after January 1 to below normal, above normal or wet, this action will be suspended. If the water year type changes after January to dry or critical, Permittee shall operate according to this Condition of Approval.

From January 15 through March 31 of dry and critical water years, Permittee shall reduce the maximum seven-day average diversion rate at BSPP to less than 60 cfs when larval LFS are detected at station 716. In addition, in its weekly meetings from January 15 through March 31, the Smelt Monitoring Team shall review LFS abundance and distribution survey data and other pertinent abiotic and biotic factors that influence the entrainment risk of larval LFS at the BSPP. When recommended by the SMT, and as approved through the decision-making processes described in Conditions of Approval 8.1.3 and 8.1.4, Permittee shall reduce the maximum seven-day average diversion rate at BSPP according to the advice provided by the SMT.

From March 1 through June 30 of dry and critical water years, Permittee shall reduce the maximum seven-day average diversion rate at BSPP to less than 60 cfs when larval DS are detected at station 716. In addition, in its weekly meetings from March 1 through June 30, the SMT shall review DS abundance and distribution survey data and other pertinent abiotic and biotic factors that influence the entrainment risk of larval DS at the BSPP (including temperature and turbidity). When recommended by the SMT, and as approved through the decision-making processes described in Conditions of Approval 8.1.3 and 8.1.4, Permittee shall reduce the maximum seven-day average diversion rate at BSPP to less than 60 cfs. The DS requirements described in this condition may be adjusted to align with USFWS requirements to minimize take of DS through an amendment to this ITP.

8.13 Water Year Type Definition.

All references to water year type in this ITP shall be defined based on the Sacramento Valley Index unless otherwise noted.

Discussion of Conditions of Approval

Provide sentence or two addressing criteria for each Condition of Approval listed in “Basis for Advice” section. Refer to data below where appropriate.

SMT will conduct weekly risk assessments as described in Condition of Approval 8.1.5.2.

8.3.1 Environmental conditions did not exceed the thresholds identified in this condition during Water Year 2021. This Condition of Approval ended on 1/31/2021.

8.3.3 This Condition of Approval ended on 2/28/2021.

8.4.1 This Condition of Approval ended on 12/28/2021 when SLS detected a larval LFS in the lower San Joaquin River.

8.4.2 This Condition of Approval was not triggered by the most recently available data and the SMT determined that a recommendation was not warranted. 20 mm survey 5 detected one LFS at station 809. Water temperature is approaching the upper limit at which LFS have historically been detected by 20 mm Survey. LFS within or immediately outside of Clifton Court Forebay, or within the vicinity of the Tracy pumping plant are likely to be entrained as they seek areas with lower water temperatures. The SMT expects LFS salvage to end in the near future due to increased water temperature. Juvenile LFS detections are rare above 22°C (71.6° F) ([Jeffries 2016](#)). However, salvage may increase temporarily before ending for the season as juveniles seek cooler water. Salvage did increase over 3 days (May 27th – May 29th). This may be due to increasing water temperature in CCF. OMR (Daily Average USGS tidally filtered values) became more negative around the same time and became most negative on May 28th. On May 22nd, OMR reached -1,000 cfs and became more negative through May 27th (-2,750 cfs) before becoming less negative (-1,750 cfs) on June 1st.

8.5.1 This Condition of Approval ended on 4/1/2021.

8.5.2 This Condition of Approval has not been triggered. The three-year average FMWT Index for DS is zero, resulting in a salvage threshold of one for juvenile DS. No DS have been salvaged this water year.

8.12 This Condition of Approval has not been triggered. No DS were detected at station 716 during 20mm Survey 5.

Section 3: Hydrology and Operations

Assessment of hydrologic, operational, and meteorological information. 8.1.5.2 A.

Section 3-A: Water operations conditions. 8.1.5.2.A. i

- Antecedent Actions: (*e.g. DCC gate closure and actions such as integrated early winter pulse protection, etc.*)
 - ITP Conditions of Approval 8.3.2 Salmonid Presence limits exports to maintain a 14-day running OMRI average no more negative than -5,000 cfs. as of 1/1/2021.
 - DCC gates are currently closed. The gates will remain closed for water quality purposes related to ongoing drought conditions until further notice.
 - Construction of the South Delta agricultural barriers is complete as of May 27th. Barrier culverts will be tidally operated as of June 1st. The OMRI equation was adjusted accordingly.
 - A TUCP was submitted to the Water Board requesting that the NDOI outflow requirement be changed from 4,000 cfs to 3,000 cfs for June and July, and that the compliance point location for western Delta agricultural salinity be changed from Emmaton to Three Mile Slough from June 1st through August 15th.
- Controlling Factors: Delta Outflow and X2 location.
- Water Temperature:
 - CCF Daily Average Water Temperature = 21.97°C
 - 3 Station Average = 21.9°C
- Tidal Cycle: Spring tide peaked over previous week.
- Turbidity:
 - 8.3.1 Freeport 3-day average = Not reported. 8.3.1 terminated without being triggered.
 - 8.5.1 OBI Turbidity = 4.48 FNU
- Salinity: X2 > 81 km. Estimated to be 89.3 km on the Sacramento River.
- Hydrologic Footprint: The SMT did not request any new PTM runs.

Section 3-B: Water operations outlook. 8.1.5.2.A. ii

- Outages
 - SWP: Banks pumping plant will be offline for maintenance from May 31st through June 4th. No fish counts will be conducted while Banks is offline.

- CVP: None reported.
- Exports
 - CCF: 300 cfs
 - Jones: 800 cfs
- Meteorological Forecast: No precipitation is in the forecast for the floor of the Central Valley.
- Storm Event Projection: No major storm events are expected.

Section 3-C: Projected conditions. 8.1.5.2.A. iii

- DCC Gates position: DCC gates were expected to begin routine operations beginning May 21st, however USBR determined that they will remain closed until further notice because of overall increased salinity levels in the Delta and meeting compliance at Emmaton for electrical conductivity (EC).
- Sacramento River flow at Freeport: 6,000 cfs and will vary with upstream releases.
- San Joaquin River flow at Vernalis: 650 cfs
- Qwest: -400 cfs
- Old River at Bacon Island Turbidity: 4.48 FNU.
- Expected changes in South Delta Exports: No changes are expected.
- NDOI: 3,700 cfs.

Table 1: Comparison of OMR and OMR Index (5-day and 14-day averages for OMR Index and USGS gauge were reported on [SacPAS website](#), accessed 6/01/2021.

Date	Averaging Period	USGS gauges (cfs)	Index (cfs)
6/01/2021	Daily	Not Reported	-1,600 cfs
5/28/2021	5-day	-2,430 cfs	-1,310 cfs
5/28/2021	14-day	-1,480 cfs	-1,140 cfs

Section 4: Distribution and Biology.

8.1.5.2.B. Assessment of biological information for Delta Smelt and Longfin Smelt

Section 4-A: Delta Smelt population status 8.1.5.2.B. i

- EDSM sampled 39 out of 40 planned sites across 6 strata and did not collect any Delta Smelt.
- The 2020 Annual FMWT Index for DS is zero for the third consecutive year.
- Delta Smelt LCM discussion. Not Discussed.
- Biological Conditions: Not Discussed.

- % of population in Delta zones: SMT did not discuss distribution in terms of percentage in Delta zones.
- 20 mm Survey 5 sample processing is 75 % complete. No DS have been detected in stations processed to date. No DS were detected at station 716 which informs Condition of Approval 8.12.
- 20 mm Survey 4 collected 1 DS (FL = 25 mm) at station 719 in the SDWSC on 5/6/2021.
- Salvage: No DS have been detected at either salvage facility this season. No DS have been detected in larval sampling at the Tracy Fish Collection Facility (CVP) or Skinner Fish Facility (SWP). Larval sampling began at the Tracy Fish Collection Facility on 2/15/2021 and at the Skinner Fish Facility on 2/22/2021.

Section 4-B: Longfin Smelt population status 8.1.5.2.B. ii.

- FMWT Index: The FMWT Annual Index for LFS is 28. Monthly indices for September and October are zero, the index for November is 22 and index for December is 6.
- 20 mm Survey 5 sampled from 5/17/2021 through 5/20/2021. Sample processing is 75% complete. Stations 910, 912 and 919, listed in Condition of Approval 8.4.2, were not sampled due to boat related issues. Data was available for the other nine stations listed in 8.4.2. One LFS (FL = 20 mm) was collected at station 809. The highest catch occurred in the lower Sacramento River, however, catch was lower than that observed in 20mm Surveys 3 and 4.
- 20mm Survey 4 collected 1 LFS at station 809 (FL = 14 mm). No LFS were collected at other stations in the south or central Delta (i.e., those listed in Condition of Approval 8.4.2). Station 919 was not sampled due to excessive filamentous algae interfering with the net.
- Other Surveys:
 - Chipps Island Trawl collected 1 juvenile LFS (FL = 31 mm) on 5/26 and one adult LFS (FL = 93 mm) on 5/28.
 - EDSM: Sample processing is ongoing, and the following data is preliminary and subject to change. Preliminary results reported 8 juvenile LFS (FL = 23 – 35 mm) collected in Suisun Marsh. There are potentially more LFS in samples that have not been processed. Updated data will be reported at the next SMT meeting.
 - Salvage: Sixty-two juvenile LFS (FL = 33 – 53 mm) were salvaged at the state Skinner Delta Fish Protective Facility from 5/25/2021 through 5/31/2021. None were salvaged at the federal Tracy Fish Collection Facility during the same period. To date, 677 juvenile LFS have been salvaged at the state facility and 188 juvenile LFS have been salvaged at the federal facility. Salvage estimates are expanded based on sampling effort.

Section 4-C: Additional data sources to assess sensitivity to entrainment Delta.8.1.5.2.C & D.

- SMT estimated X2 using a tool developed by DWR staff that applies the same methodology used to calculate X2 reported on CDEC.

Notes:

The SMT continued discussion of the purpose and possible topics for post-season workshop(s), this discussion will be ongoing. A framework for the discussion has been circulated to SMT members who are requested to make red-line edits or additions to items listed under weeks one and two.

The SMT will view a presentation on the turbidity mapping visualization on the Bay Delta Live website at a future meeting.

The SMT determined that larval sampling at both facilities can stop for WY 2021.

Attachments:

Table 1. Delta Smelt and Longfin Smelt catch per station from 2021 20-mm Survey 5, which was in the field 5/17/2021 – 5/20/2021. These data are preliminary and subject to change.

Year	Survey	Station	Date	# Tows Processed	Species	Total Catch	Min Length	Max Length	Avg Length
2021	5	323	17-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	340	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	342*	17-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	343	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	344*	17-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	345	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	345	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	405	18-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	411	18-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	418	NA	0	Not Yet Processed	0	NA	NA	NA

Year	Survey	Station	Date	# Tows Processed	Species	Total Catch	Min Length	Max Length	Avg Length
2021	5	501	19-May-21	3	Longfin Smelt	7	28	38	32.14
2021	5	504	18-May-21	3	Longfin Smelt	10	28	33	30.9
2021	5	519*	19-May-21	3	Longfin Smelt	4	17	35	28.5
2021	5	602	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	606	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	609	19-May-21	3	Longfin Smelt	4	20	30	24.75
2021	5	610	19-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	508	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	513	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	520	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	801	19-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	804	18-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	703	19-May-21	3	Longfin Smelt	11	20	30	23.91
2021	5	704	19-May-21	3	Longfin Smelt	31	22	33	26.42
2021	5	705	19-May-21	3	Longfin Smelt	2	21	24	22.5
2021	5	706	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	707	19-May-21	3	Longfin Smelt	67	16	29	21.63

Year	Survey	Station	Date	# Tows Processed	Species	Total Catch	Min Length	Max Length	Avg Length
2021	5	711	19-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	716	20-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	718	20-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	719	20-May-21	3	Longfin Smelt	1	35	35	35
2021	5	720*	20-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	723	20-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	724	20-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	726	20-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	809	18-May-21	3	Longfin Smelt	1	20	20	20
2021	5	812	18-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	815	18-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	901*	17-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	902	17-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	906	18-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	910	NA	NA	Not Sampled	NA	NA	NA	NA
2021	5	912	NA	NA	Not Sampled	NA	NA	NA	NA
2021	5	914*	17-May-21	3	No Smelt Catch	0	NA	NA	NA

Year	Survey	Station	Date	# Tows Processed	Species	Total Catch	Min Length	Max Length	Avg Length
2021	5	915	17-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	918	17-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	919	NA	NA	Not Sampled	NA	NA	NA	NA

*Reduced tow time
 Processing is complete through 5/24/2021