

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

Section 1: Overview

Date: 25 May 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.

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 slightly lower relative to the previous seven days due to seasonal timing. The likelihood of larval entrainment is slightly higher than the previous seven days due to 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 collected 2 LFS on 5/21/2021. One in Suisun Bay (FL = 15 mm) and one in the lower Sacramento River (FL = 21.1). Bay Study completed May sampling and reported 349 juvenile LFS and 12 adults. Ninety-nine juveniles were collected in

the lower Sacramento River (FL = 21 – 34 mm), 194 in Suisun Bay (FL = 21 – 76 mm), 1 in the lower San Joaquin River (FL = 27), and 55 (FL = 23 – 77 mm) were collected downstream of Carquinez Strait. Nine adult LFS (FL > 85 mm) were collected in Suisun Bay and three were collected in San Pablo Bay.

LFS salvage continues to decrease at both facilities. Salvage operations did not occur while Banks pumping was offline from 5/18/2021 through 5/21/2021. Risk of entrainment into the export facilities is low for LFS outside of the Old and Middle River. LFS that are still present outside of or within Clifton Court Forebay, 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.

Ten juvenile LFS were salvaged at the state Skinner Delta Fish Protective Facility from 5/18/2021 through 5/24/2021. None were salvaged at the federal Tracy Fish Collection Facility during the same period. To date, 615 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
- 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 further 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 -1000 cfs to -1,500 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 OMR 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 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 for 7 non-consecutive days in June, AND
 - Daily average water temperature at Prisoner's Point exceeds 22.2°C 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. However, salvage appears to be decreasing.

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 started on May 1st, with closures and full operations occurring later in the month or in June. Grantline Canal barrier is scheduled to be completed on May 27th. This will result in a change in the OMRI calculation.
 - D-1641 NDOI requirement changed to 4,000 cfs on May 1st.
- Controlling Factors: Delta Outflow and X2 location.
- Water Temperature:
 - CCF Daily Average Water Temperature = 19.66°C
 - 3 Station Average = 19.61°C
- Tidal Cycle: Spring tide will peak over next several days.
- Turbidity:
 - 8.3.1 Freeport 3-day average = Not reported. 8.3.1 terminated without being triggered.
 - 8.5.1 OBI Turbidity = 4.19 FNU
- Salinity: X2 > 81 km. Estimated to be 90.3 km on the Sacramento River and 91.5 km on the San Joaquin 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 will be offline for maintenance from May 30th to 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: Currently at 8,300 cfs and are expected to decrease.
- San Joaquin River flow at Vernalis: 800 cfs
- Qwest: Currently positive, projected to turn slightly negative
- Old River at Bacon Island Turbidity: 4.19 FNU.
- Expected changes in South Delta Exports: No changes are expected.
- NDOI: 6,700 cfs and is projected to decrease.

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 5/25/2021.

Date	Averaging Period	USGS gauges (cfs)	Index (cfs)
5/25/2021	Daily	Not Reported	-1,220 cfs
5/21/2021	5-day	-530 cfs	-1,100 cfs
5/21/21	14-day	-1,220 cfs	-1,100 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: No DS were collected 5/17 – 5/21
- The EDSM abundance estimates for the week of 5/3/2021 were 9,143 for age-0 DS in the Sacramento River strata and 5,299 for age-0 DS in the SDWSC Channel strata. Total age-0 abundance estimate for the week of 5/3/2021 was 14,442 age-0 DS.
- 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 32 % 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 32% 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.
- 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.
- May Bay Study collected 349 juvenile LFS and 12 adults.
 - Ninety-nine juveniles were collected in the lower Sacramento River (FL = 21 – 34 mm) , 194 in Suisun Bay (FL = 21 – 76 mm), 1 in the lower San Joaquin River (FL = 27), 41 in San Pablo Bay (FL = 23 – 69 mm), 13 in central San Francisco Bay (FL = 34 – 77 mm) and one in south San Francisco Bay (FL = 77 mm)
 - Nine adults were collected in Suisun Bay (FL = 85 – 97 mm) and three in San Pablo Bay (FL = 86 – 105 mm)
- Other Surveys:
 - Chipps Island Trawl did not collect any LFS in the past seven days.
 - EDSM reported 2 LFS (FL = 15 – 21.1 mm) collected in Suisun Marsh and the Lower Sacramento River on 5/21/2021
 - Salvage: Ten juvenile LFS were salvaged at the state Skinner Delta Fish Protective Facility from 5/16/2021 through 5/24/2021. None were salvaged at the federal Tracy Fish Collection Facility from 5/16/2021 through 5/24/2021. To date, 615 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. High salvage event at the SWP on May 15th at 7am, 9am and 10am sampling windows were reduced. Secondary channel was sampled on May 17th and no smelt were retrieved.

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

- 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.

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

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	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	340	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	342	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	343	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	344	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	345	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	346	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	405	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	411	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	418	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	501	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	504	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	519	NA	0	Not Yet Processed	0	NA	NA	NA
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

Year	Survey	Station	Date	# Tows Processed	Species	Total Catch	Min Length	Max Length	Avg Length
2021	5	804	18-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	703	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	704	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	705	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	706	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	707	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	711	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	716	20-May-21	3	No Smelt Catch	0	NA	NA	NA
2021	5	718	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	719	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	720	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	723	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	724	NA	0	Not Yet Processed	0	NA	NA	NA
2021	5	726	NA	0	Not Yet Processed	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