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

Section 1: Overview

#### Date: 23 March 2021

#### Life Stages Present:

Delta Smelt: Adult, Juvenile, Larvae [Enhanced Delta Smelt Monitoring (EDSM) collected two Delta Smelt in the juvenile size bin on January 1<sup>st</sup> and 26<sup>th</sup>, 2021] 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). Projected operations will result in an OMRI that is less negative than prior recommendations made under Condition of Approval 8.4.2 for the protection larval and juvenile LFS. The SMT also determined that the diversion restriction for Barker Slough should be lifted due to lack of detections in the vicinity during Smelt Larva Survey 6 (SLS 6).

#### **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 Suisun Marsh, west of the Sacramento-San Joaquin confluence, and within the Sacramento Deep Water Ship Channel. The distribution of adult DS is expected to extend upstream of the confluence which is supported by historical Spring Kodiak Trawl (SKT) data analysis. High north winds on 3/23/2021 may influence turbidity at Old River at Bacon Island (OBI). 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. No larval DS have been detected. The less negative levels of OMRI decrease the potential for entrainment of DS in the central Delta, which includes fish in the lower San Joaquin River, into the south Delta.

*Longfin Smelt*: Projected operations are expected to result in an OMRI ranging from -800 cfs to -1950 cfs. This level is less negative than the recommended -2,500 cfs OMRI limit provided by the SMT at previous meetings. 20mm Survey began sampling this week. Data was available for five of the 20mm Survey stations listed in Condition of Approval 8.4.2 at the time of the call. No LFS were reported at stations 901, 902, 914, 915 and 918. Sample collection and processing is ongoing for 20mm Survey 1. Smelt Larva Survey 6 (SLS 6) completed sampling last week. Sample processing is 57% complete and larval LFS were detected at 5 of the stations listed in Condition of Approval 8.4.2. No LFS were collected at station 716 which informs Condition of Approval 8.12, Barker Slough operations. SLS 5 sample processing is complete. See the attached catch table for details. To date, twenty-six juvenile LFS have been salvaged at the state Skinner Fish Facility and eight have been salvaged at the federal Tracy Fish Collections Facility.

# 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):
  - o Delta Smelt: Low
  - Longfin Smelt: Moderate risk of LFS adults moving from the confluence into the Central Delta of their own volition. EDSM detected an LFS (FL = 81 mm) in the lower Sacramento River on 3/17/2021. Chipps Island Trawl detected two LFS (FL = 77 mm and 90 mm) on 3/17/2021.
- Overall Entrainment Risk
  - o 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:
  - o Delta Smelt: Low
  - $\circ$   $\;$  Longfin Smelt: High for larvae in the northern OMR corridor  $\;$
- Change in exposure from previous week:
  - Delta Smelt: Slightly elevated due to seasonal timing and previously elevated turbidity in the central Delta.
  - Longfin Smelt: Risk has decreased compared to last week due to positive Qwest and OMRI being less negative than prior SMT recommendations. Exposure to risk of entrainment remains high for larvae in the northern OMR corridor.
- Reporting OMRI (Number and range of OMRI bins will vary based on anticipated hydrology and operations)
  - OMRI is projected to range from -800 cfs to -1,950 cfs.
  - OMRI scenarios were not assessed. Export levels are projected to be less negative than prior recommendations.

# Section 2: Basis for Advice

The 2020 <u>Incidental Take Permit for Long-Term Operation of the State Water Project in the</u> <u>Sacramento-San Joaquin Delta 2081-2019-066-00</u> (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 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).

# 8.5.1 Turbidity Bridge Avoidance.

The purpose of this Condition is to minimize the risk of entrainment of adult DS in the corridors of the Old and Middle rivers into the south Delta export facilities. This Condition is intended to avoid the formation of a turbidity bridge from the San Joaquin River shipping channel to the south Delta export facilities, which historically has been associated with elevated salvage of pre-spawning adult DS.

After the Integrated Early Winter Pulse Protection (Condition of Approval 8.1.3) or February 1 (whichever comes first), until April 1, Permittee shall manage exports to maintain daily average turbidity at OBI to a level less than 12 NTU<sup>1</sup>. If the daily average turbidity at OBI is greater than 12 NTU, Permittee shall restrict south Delta exports to achieve an OMRI flow that is no more negative than -2,000 cfs until the daily average turbidity at OBI is less than 12 NTU.

If, after five consecutive days of OMRI flow that is less negative than -2,000 cfs, the daily average turbidity at OBI is not less than 12 NTU the SMT may convene to assess the risk of entrainment of DS (Condition of Approval 8.1.5.2). The SMT may provide advice to WOMT regarding changes in operations that could be conducted to minimize the risk of entrainment of DS (Condition of Approval 8.1.3). The SMT may also determine that OMRI restrictions to manage turbidity are infeasible and may instead provide advice for a different OMRI flow target that is between -2,000 cfs and -5,000 cfs and is protective based on turbidity and adult DS distribution and salvage to the WOMT for consideration (Condition of Approval 8.1.3). Operational decisions shall be made following the process described in Condition of Approval 8.1.4 (Collaborative Real Time Risk Assessment).

Turbidity readings at individual sensors can generate spurious results in real time. Spurious results could be incorrectly interpreted as a turbidity bridge, when in fact the cause is a result of local conditions or sensor error. To assess whether turbidity readings at OBI are attributable to a sensor error or a localized turbidity spike, Permittee, in coordination with Reclamation, may consider and review data from other nearby locations and sources. Additional information that will be reviewed include regional visualizations of turbidity, alternative sensors, and boatbased turbidity mapping, particularly if there was evidence of a local sensor error. Permittee may bring data from these additional sources to the SMT for consideration during the development of a risk assessment to be provided to the WOMT for evaluation (Condition of Approval 8.1.3).

Permittee shall use the decision-making process described Condition of Approval 8.1.4 (Collaborative Real-time Risk Assessment) to determine if south Delta exports may increase after five-days of OMRI no more negative than -2,000 cfs, or to determine that this action is not

<sup>&</sup>lt;sup>1</sup> Current instrumentation uses Formazin Nephelometric Units (FNU).

warranted due to a sensor error or localized turbidity event. Permittee shall implement this action until CDFW is in agreement that the action may be ended or modified.

## 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.

## 8.12 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 Data for five of the 12 relevant 20mm Survey stations was available at the time of the call. No LFS were detected at stations 901, 902, 914, 915 or 918. Last week, SLS 6 reported that larvae were detected at five of the stations listed in this Condition of Approval. The SMT determined that an OMRI recommendation was not warranted due to projected operations. OMRI is expected to be less negative than prior SMT recommendations made under this Condition of Approval.

8.5.1 This Condition of Approval has not been triggered. Turbidity at OBI has been below 12 FNU since 2/1/2021. Wind driven turbidity has increased to 35.77 NTU within Franks Tract by the time of the call. However, elevated turbidity had not reached Old River at Bacon Island (OBI) and projected operations are expected to remain less negative than the -2,000 cfs OMRI limit that would be required if this Condition of Approval were triggered.

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 SLS 6 did not detect any LFS or DS at station 716. The prior diversion limit for LFS was lifted due to lack of detections at 716. No LFS or DS were detected at the next nearest station, 723. Barker Slough Pumping Plant exports have been zero since 3/9/2021 due to annual maintenance.

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 will remain closed for the remainder of the season (through May 20, 2021 per the PA description for DCC gate operations).
  - Grantline Canal agricultural barrier was breached on 11/11/2020. The OMRI equation was adjusted accordingly to accommodate the change in barrier status.
  - Barker Slough Pumping Plant has ceased diversions until 3/26 to conduct annual maintenance.
- Controlling Factors: Delta Water Quality
- Water Temperature:

- CCF = Not discussed (*Condition of Approval 8.8: Daily average temperature at CCF exceeds 25°C for 3 consecutive days*)
- 3 Station Average = 13.71C
- Tidal Cycle: Not discussed
- Turbidity:
  - 8.3.1 Freeport 3-day average = Not reported. 8.3.1 terminated without being triggered.
  - 8.5.1 OBI Turbidity = 2.09 FNU
    - At the time of the call, wind driven turbidity in Franks Tract had reached 35.77 NTU (15 minute event data). Elevated turbidity had not been detected at OBI.
- Salinity: X2 = 79 km
- Hydrologic Footprint: The SMT did not request any new PTM runs. The PTM run provided at the previous meeting reasonably reflects current conditions.

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

- Outages
  - SWP: No exports on 3/21/2021
  - CVP: No exports from noon to midnight on 3/15/2021
- Exports
  - CCF: 300 cfs
  - o Jones: 800 cfs
- Meteorological Forecast: No precipitation is expected in the next 7 days
- Storm Event Projection: No precipitation is expected in the next 7 days

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

- DCC Gates position: Closed for season (through May 20, 2021)
- Sacramento River flow at Freeport: 12,500 cfs and is expected to decrease
- San Joaquin River flow at Vernalis: 1,000 cfs. Will vary with upstream releases.
- Qwest: Reached +3,000 cfs over the weekend. Will decrease through the week.
- Old River at Bacon Island Turbidity: 2.09 FNU.
- Expected changes in South Delta Exports: Exports are not expected to change substantially.
- NDOI: Reached 13,700 cfs and is expected to decrease as flow at Freeport decreases.

Table 1: Comparison of OMR and OMR Index (5-day and 14-day averages for OMR Index and USGS gauge were reported on <u>SacPAS website</u>, accessed 3/22/2021. NOTE: USGS gauge data have been affected by a sensor malfunction on 3/15/2021.)

Date	Averaging Period	USGS gauges (cfs)	Index (cfs)		
3/15/2021	Daily	Not Reported	-1,400 cfs		
3/20/2021	5-day	-800 cfs	-1,840 cfs		
3/13/2021	14-day	-370 cfs	-1,199		

**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 did not collect any DS during sampling conducted from 3/15/2021 through 3/19/2021. No abundance estimate was calculated.
- 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.
- Other Surveys: The last DS detection was on 1/26/2021 by EDSM.
- 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.
- Bay Study: In March, Bay Study detected 1 LFS in the lower Sacramento River, six LFS in Suisun Bay and four LFS downstream of Carquinez Strait.
- Other Surveys:
  - $\circ$  Chipps Island Trawl collected two LFS (FL = 77 mm and 90 mm) on 3/17/2021.
  - $\circ$  EDSM collected 1 LFS (FL = 81 mm) on 3/17/2021 in the lower Sacramento River.
  - SLS 6 began Sample processing is 57% complete. See Attachment 1 below for details.

- SKT 3 completed sampling at all stations from 3/1/2021 through 3/4/2021. One LFS (FL = 85 mm) was collected in the lower Sacramento River, 4 LFS (FL = 60 80 mm) were collected in Suisun Bay, and one LFS (FL = 80 mm) was collected in Carquinez Strait.
- Salvage: To date, 26 juvenile LFS have been salvaged at the state Skinner Fish Facility and eight juvenile LFS have been salvaged at the federal Tracy Fish Facility. Both values are expanded counts based on sampling effort.

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

Notes:

The SMT ITP Risk Assessments can be accessed on the CDFW Water Branch website.

SLS has completed sampling for Water Year 2021.

EDSM and Chipps Island sampling was interrupted due to COVID-19 mitigation. Both surveys are expected to resume sampling this week. EDSM will deploy 2 crews Wednesday through Friday and are expected to sample all strata with a reduced number of sites and/or tows per site.

## Attachments:

Attachment 1: Longfin Smelt catch per station from 2021 Smelt Larva Survey, Survey 6, which sampled 3/15/2021 - 3/17/2021.

Year	Survey	Station	Turbidity	Sample Status	Species	Smelt Catch	Min Length	Max Length	Avg Length
2021	6	405	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	411	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	418	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	501	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	504	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	508	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	513	NA	Not yet processed	NA	NA	NA	NA	NA

Year	Survey	Station	Turbidity	Sample Status	Species	Smelt Catch	Min Length	Max Length	Avg Length
2021	6	519	NA	Notyet processed	NA	NA	NA	NA	NA
2021	6	520	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	602	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	606	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	609	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	610	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	703	18.3	Processed	Longfin Smelt	9	6	11	7.9
2021	6	704	34.8	Processed	Longfin Smelt	4	6	7	6.5
2021	6	705	6.4	Processed	Longfin Smelt	11	7	9	8
2021	6	706	16.1	Processed	Longfin Smelt	11	6	8	6.8
2021	6	707	9.8	Processed	Longfin Smelt	7	6	9	7.4
2021	6	711	4.4	Processed	NA	No Smelt Catch	NA	NA	NA
2021	6	716	3.8	Processed	NA	No Smelt Catch	NA	NA	NA
2021	6	723	4.4	Processed	NA	No Smelt Catch	NA	NA	NA
2021		801	NA	Not yet processed	NA	NA	NA	NA	NA
2021		804	NA	Not yet processed	NA	NA	NA	NA	NA
2021	6	809	109	Processed	Longfin Smelt	9	6	11	8
2021	6	812	6.4	Processed	Longfin Smelt	2	9	11	10

Year	Survey	Station	Turbidity	Sample Status	Species	Smelt Catch	Min Length	Max Length	Avg Length
2021	6	815	4.5	Processed	NA	No Smelt Catch	NA	NA	NA
2021	6	901	8.7	Processed	Longfin Smelt	5	6	9	7.6
2021	6	902	7.6	Processed	Longfin Smelt	1	8	8	8
2021	6	906	4.2	Processed	Longfin Smelt	1	10	10	10
2021	6	910	5.1	Processed	NA	No Smelt Catch	NA	NA	NA
2021	6	912	4.7	Processed	NA	No Smelt Catch	NA	NA	NA
2021	6	914	3.7	Processed	NA	No Smelt Catch	NA	NA	NA
2021	6	915	3.6	Processed	NA	No Smelt Catch	NA	NA	NA
2021	6	918	3.4	Processed	NA	No Smelt Catch	NA	NA	NA
2021	6	919	3.2	Processed	NA	No Smelt Catch	NA	NA	NA