



Memorandum

Date: October 24, 2016

To: Scott Wilson
Regional Manager
Bay Delta Region

From: James White
Environmental Scientist
Bay Delta Region

Subject: 2016 USFWS Delta Smelt Recovery Index – recovery criteria not met

Information from the Department’s September and October Fall Midwater Trawl surveys is used each year to determine if USFWS Delta Smelt Recovery Index abundance criteria and distribution criteria have been met. The 2016 September and October Fall Midwater Trawl surveys have been completed. *This memo briefly describes that the abundance criteria and distributional criteria have not been met.*

The 1995 USFWS Sacramento-San Joaquin Delta Native Fishes Recovery Plan (the Plan) states that recovery of Delta Smelt requires the satisfaction of these abundance criteria¹: (1) the 2-year average abundance index must not fall below 84 and (2) the abundance index meets or exceeds 239 in 2 of 5 consecutive years. *The abundance criteria have not been met because the 2-year average abundance index is 1 and during the last five years the index has never exceeded 239 (Table 1).*

The Plan also states that recovery of Delta Smelt requires the satisfaction of these distributional criteria: (1) Delta Smelt must be present in 2 out of the 11 stations in the North Central Delta (Zone A), 5 of the 9 stations in Sacramento River and Montezuma Slough (Zones B1 and B2), and 6 of the 15 stations in Suisun Bay (Zone C) and (2) distributional criteria must be met in all zones 2 of 5 consecutive years, in at least 2 zones in 1 of the remaining 3 years, and in at least 1 zone in the remaining 2 years. *The distributional criteria have not been met because Delta Smelt were not found at any of the designated stations in 2016 (Table 1).*

Lastly, the Plan states that Delta Smelt will be considered for delisting when abundance criteria and distributional criteria have been met consecutively over a 5-year period that includes 2 consecutive years of extreme outflows, one of which must be dry or critical (Sacramento River Indices ≤ 6.0), the other of which may be wet (Sacramento River Indices ≥ 11.2). For convenience, Table 1 includes Water Year classifications.

Table 1. Distribution and abundance of Delta Smelt collected from the September and October Fall Midwater Trawl surveys from 2012 through 2016.

Year	Number of stations where Delta Smelt were captured in each zone			Delta Smelt Abundance		Water-Year Type
	North Central Delta	Sacramento River and Montezuma Slough	Suisun Bay	Index	2-year Average	
2012	0	2	2	13	34	Below Normal
2013	0	2	1	4	8.5	Dry
2014	0	2	0	5	4.5	Critical
2015	0	1	0	2	3.5	Critical
2016	0	0	0	0	1	Below Normal

¹ Plan abundance is summed catch calculated from a subset of Fall Midwater Trawl survey stations, thus it will not match the routine FMWT indices reported for the same months.