Metadata for FMWT STN Zooplankton Monitoring CPUE Matrix

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Files Created:	3/9/2012
CB Net File Updates:	10/8/2014 (FMWT 2012 CPUE data), 3/24/2015 (STN 2008, 2009, 2013, 2014 CPUE), 3/25/2015 (FMWT 2013 CPUE), 4/15/2015 (FMWT 2014 CPUE); 8/3/2016 (FMWT 2015 CPUE); 8/18/2016 (STN 2015 CPUE); 4/10/2017 (STN 2016 CPUE); 9/20/2017 (FMWT 2016 CPUE); 6/29/2017 (FMWT 2008 & 2017 CPUE); 8/14/2018 (STN 2017 CPUE, and corrected STN station 323 region from Suisun Bay to San Pablo Bay); 2/12/2020 (FMWT and STN 2018 CPUE), 8/17/2020 (FMWT STN 2019 CPUE, and Bottom Temp for all years), 1/6/2022 (STN 2020 CPUE, added code for Meter Estimates for all years)
Mysid Net File Updates:	Updated 7/18/2018 (2017 data), 6/3/2020 (2018 data), 1/19/2022 (2019 data, bottom temp and code for Meter Estimates for all years, combined w/ FMWT amphipod matrix)
Purpose:	The following metadata describes the zooplankton catch matrices titled "FMWT_STN_CBNetCPUE_2005toXX" and "FMWT_MysidNetCPUE_2007toXX". Files include routine zooplankton monitoring at STN stations and FMWT stations. Zooplankton data from supplemental sampling to monitor the effects of the SMSCG Project are located in another spreadsheet on the CDFW Region 3 ftp site.

Column headers	Column header content
Project	The project which the station is associated with. FMWT= Fall Midwater Trawl, STN= Summer Townet Survey.
Year	Year sample collected.
Survey	Survey number where sample collected.
Month	Month sample collected.
Date	Date sample collected.
Station	Station number where sample collected (see station lookup file and map for station location information, some stations with the same number have slightly different locations between projects).
Time	Time at start of tow at each station (24:00).
TowDuration	Number of minutes reported for tow.
Region	General geographic region of station in the San Francisco Estuary. See station lookup file for descriptions, some stations with the same number have different geographic region designations between projects, region designations in zooplankton matrices match those in the respective project's fish matrices.
TideCode	Tide code: 1 = high slack, 2 = ebb, 3 = low slack, 4 = flood.
DepthBottom	Depth of water (m).
CondSurf	The Specific Conductivity (EC at 25 degrees Celsius) of the first foot of water from the surface in micro-siemens per centimeter.

PPTSurf	Surface salinity based from EC at 25C; PPT=((0.36966/(((CondSurf*0.001)^-1.07)-0.00074))*1.28156).
CondBott	Bottom Specific Conductivity (EC at 25 degrees Celsius) in micro-siemens per centimeter.
PPTBott	Bottom salinity based from EC at 25C; PPT=((0.36966/(((CondBott*0.001)^-1.07)-0.00074))*1.28156).
TempSurf	Surface temperature (in degrees Celsius)
TempBottom	Bottom temperature (in degrees Celsius). Began measuring in 2011 by both FMWT and STN.
Secchi	Secchi disc reading for water transparency, measured in shade (cm).
Turbidity	NTUs per Hach Turbidity Device.
Microcystis	Microcystis code: 1 = absent, 2 = low, 3 = medium, 4 = high, 5 = very high, 6 = present in zooplankton or mysid cod end but not observed in the surface water (only used from 2012-2015, before and after a 2 is used to signify low presence)
TotalMeter	Total flow meter counts during tow, as measured by a General Oceanics flow meter mounted inside mouth of the net.
MeterEstimate	Indicates if the total flow meter counts for the tow were estimated (Y/N).
Volume	Volume of water filtered through the net (m^3) (where volume filtered is estimated by: VolFiltered = (end meter – start meter) * 0.026873 * mouth area). See Zoop_CPUE_Calculation file for specific mouth area values by gear.
CPUE	Catch-per-unit-effort for each zooplankton species in number per cubic meter of water. See Zoop_CPUE_Calculation file for calculation information by gear.