

Last revised on Thursday, September 30, 2004

Metadata - stations rationale and history							
Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
Blank	No station	Jan.1998 - present	n/a		n/a	n/a	Discrete WQ
C10	San Joaquin River near Vernalis	Jan.1975 – Aug..2005	n/p	"Rim" station with a long, comprehensive, highly utilized data record and an important flux station (imports into the Delta from the San Joaquin watershed) with high productivity. D-1641: flow rate and Specific conductivity water quality objectives.	1938 - Site initiated for Central Valley Operations Sampling Program. 1968 - station for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. Ongoing discrete monitoring.	At nearby location C10A: Proposed automated continuous water quality monitoring.	Discrete WQ
C3	Sacramento River @ Greenes Landing	Jan.1975 - May.2004	Principal northern Delta inflow.	"Rim" station with a long, comprehensive, highly utilized data record and an important flux station (imports into the Delta from the Sacramento watershed) with low productivity.	1952 - Site initiated for USBR Central Valley Operations Sampling Program. 1969 - station for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. Ongoing discrete monitoring.	At nearby location C3A: Automated continuous water quality monitoring in compliance with D-1641	Discrete WQ
C3A	Sacramento	Jul.2003	Principal	"Rim" station	1998 -	Drinking	Discrete

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
	River @ Hood	- present	northern Delta inflow. Located at the proposed outlet for the peripheral canal.	with a long, comprehensive, highly utilized data record and an important flux station (imports into the Delta from the Sacramento watershed) with low productivity.	established for the EMP automated continuous water monitoring network in December. 2003 - Monthly sampling started in July for comparison with C3.	water monitoring by DWR-MWQI program at the same location under the designation "Hood".	WQ
C7	San Joaquin River @ Mossdale Bridge	Jan.1975 - Dec.1995	Lower Delta location; shallow depth; low summer flows.		1968 - station established by USBR Central Valley Operations Office. Historical USBR-DWR Delta-Suisun Bay Surveillance Program station. 1995 - discontinued because cluster analyses showed that data from this site was similar to that of station C10.	At nearby location C7A: Automated continuous water quality monitoring in compliance with D-1641	Discrete WQ
C9	West Canal @ Clifton Court Intake	Jan.1975 - Dec.1995	Export flows; November 19, 1965, criteria station.	Flux station near export pumps (exports). D-1641: Specific conductivity water quality objective.	1968 - Site initiated for Central Valley Operations Sampling Program. 1973 - included within the	At this location: EMP benthos monitoring in compliance with D-1641.	Discrete WQ

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					combined USBR-DWR Delta-Suisun Bay surveillance Program. 1995 - discontinued , automated continuous monitoring at nearby Clifton Court Forebay station replaced discrete water quality sampling in 1996.	Phytoplankton (in compliance with by D-1641) and continuous water quality are monitored by DWR Divison of Operations and Maintenance in compliance with by D-1641 at the nearby station	
D10	Sacramento River @ Chipps Island	Jan.1975 - May.2004	Total Delta Outflow; deep channel, large tidal influence; near industrial complex discharging wastewater; salinity intrusion at low Delta outflows.	Flux station near Sacramento and San Joaquin River confluence (outflow). D-1641: Specific conductivity water quality objective.	1968 - station for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. 1995 - discontinued because cluster analyses showed that data from this site was similar to that of stations D7, D8. WQ field data still recorded with zooplankton sampling in implementati	1996 - Automated continuous monitoring at nearby D10A replaced discrete sampling in implementation of WRD D1641.	Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale- 2002	Historical Notes	Related Monitoring	SubProject
					on of D1641.		
D11	Sherman Lake near Antioch	Jan.1975 - Dec.1995	n/p	Ambient monitoring station in flooded island (shallow lake) habitat. Very "leaky" flooded island close to the confluence / estuarine transition zone.	1968 - station for the San Luis Drain Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1995 - Discontinued because cluster analyses showed that data from this site was similar to that of station D4. In 2001-2002, EMP reviewers recommended reestablishment of this shallow-water station.		Discrete WQ
D12	San Joaquin River @ Antioch Ship Channel	Jan.1975 - present	Deep channel; high tidal flow; salinity intrusion at low Delta outflows; near industrial complex discharging wastewaters; located	Ambient monitoring station in large tidal river near confluence / estuarine transition zone. D-1641: Chloride water quality objective.	1950 - USBR started salinity monitoring at nearby shore site. 1968 - station for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun	1996 - Automated continuous monitoring at nearby D10A replaced discrete sampling in implementation of WRD D1641.	Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
			at the projected point of discharge of San Luis drain.		Bay surveillance Program. 1995 - Discontinued because cluster analyses showed that data from this site wa		
D14A	Big Break near Oakley	Jan.1975 - Dec.1995	Confluence of many sloughs and much drainage in shallow embayment.		1968 - station for the San Luis Drain Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program. This station replaced the historical site D14. 1995 - Discontinued .		Discrete WQ
D15	San Joaquin River @ Jersey Point	Jan.1975 - Dec.1995	Deep channel; within tidal excursion limit of proposed San Luis drain outfall; Salinity standard established in 1965	Important flux station providing data for cross-Delta mass flux calculations. D-1641: Specific conductivity water quality objective.	1950 - USBR started salinity monitoring at nearby shore site. 1968 - station incorporated into the San Luis Drain Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program.	At nearby location: continuous salinity and temperature monitoring at USBR Central Valley Operations "Jersey Point" station in compliance with D-1641	Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
					1995 - Discontinued .		
D16	San Joaquin River @ Twitchell Island	Jan.1975 - present	Salinity standard established in 1965	Long-term zooplankton "index" station. Ambient monitoring station.	1968 - for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. 1995 - Discontinued because cluster analyses showed that data from this site was similar to that of station D26. WQ field data still recorded with zooplankton sampling in implementation of degrees D1641.		Discrete WQ
D19	Frank's Tract near Russo's Landing	Jan.1975 - present	n/p	Ambient monitoring station in flooded island (shallow lake) habitat. Moderately "leaky," shallow lake in the Western Delta with high submerged aquatic vegetation	1968 - station for the San Luis Drain Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1995 - Discontinued because		Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
				and clam (Corbicula) densities and low algal biomass.	cluster analyses showed that data from this site was similar to that of station D26. In 2001-2002, EMP reviewers recommended reestablishment of this shallow-water station. 2004 - Monthly sampling resumed.		
D2	Suisun Bay near Preston Point	Jan.1975 - Dec.1975	n/p		1968 - station established for the San Luis Drain Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program; 1973 - Included in USBR Two-layered Flow-Entrapment Zone Program (EZP); 1974 - Sampled by EMP as an Interagency Ecological Study site. 1975 -		Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
					Discontinued . Reason for termination undocumented.		
D22	Sacramento River @ Emmaton	Jan.1975 - present	Deep Channel; Sacramento River before its confluence with the San Joaquin River; Salinity standard established in 1965	Long-term zooplankton "index" station. Ambient monitoring station. D-1641: Specific conductivity water quality objective.	1952 - USBR started salinity monitoring at nearby shore site. 1968 - station for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. 1995 - Discontinued because cluster analyses showed that data from this site was similar to that of station D4. WQ field data still recorded with zooplankton sampling in implementation of degrees D1641.	Salinity and Temperature are monitored at nearby "Emmaton" by USBR-CVO as part of WRD D1641. Also monitoring by DWR Central District under the designation "1120"	Discrete WQ
D24	Sacramento River below Rio Vista Bridge	Jan.1975 - Dec.1995	Moderately deep channel; principal inflow into	Flux Station (western Delta inflow). D-1641: flow rate water	1950 - USBR started salinity monitoring at	Automated continuous water quality monitoring	Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
			Western Delta; possible salinity intrusion at low Delta outflows.	quality objective.	nearby shore site. 1968 - station established for the San Luis Drain Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1995 - Discontinued .	at nearby EMP station D24A replaced discrete sampling in compliance with D-1641.	
D26	San Joaquin River @ Potato Point	Jan.1975 - present	n/p	Long-term zooplankton "index" station. Ambient monitoring station.	1971 - station established for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program, to replace D18. Ongoing discrete water quality monitoring.		Discrete WQ
D28A	Old River @ Rancho Del Rio	Feb.1975 - present	Central Delta location; Inflow into the Western Delta under normal (or post-Peripheral canal conditions); reverse	Flux station (cross-Delta fluxes), long-term benthos station.	1973 - station established for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. Ongoing		Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
			flow under cross-Delta export pumping conditions.		discrete water quality monitoring.		
D4	Sacramento River above Point Sacramento	Jan.1975 - present	n/p		1971 - station established for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. Ongoing discrete water quality monitoring.		Discrete WQ
D41	San Pablo Bay near Pinole Point	Feb.1980 - present	Location of industrial waste discharges that can be transported into Suisun Bay and Delta by tidal influence.	Hydrodynamically important sill station in the western estuary. Deep station with potential for vertical stratification. Recipient of Delta outflow.	1971 - station established for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. 1980 - First discrete WQ sampling by IEP-EMP in February to replace D42 with a sampling site further out in San Pablo Bay. Ongoing discrete water quality		Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale- 2002	Historical Notes	Related Monitoring	SubProject
					monitoring.		
D41A	San Pablo Bay near Mouth of Petaluma River	Oct.2003 - present	n/p	Long-term benthos station. Important site for monitoring of the invasive clam Potamocorbula. Shallow "marine" end-member for biological measurements. Recipient of Delta outflow. Ambient monitoring station representing shoal habitat with fluctuating salinity levels.	Future station	Near-by USGS-operated continuous station at Channel Marker 9 measures turbidity, EC, temperature .	Discrete WQ
D42	San Pablo Bay near Mare Island	Mar.1976 - Dec.1979	n/p		1971 - station established for the San Luis Drain Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1979 - Discontinued for undocumented reason. Later replaced by D41 further out in the San Pablo Bay.		Discrete WQ
D6	Suisun Bay	Jan.1975	Deep	Important flux	1950 -	At nearby	Discrete

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
	@ Bulls Head nr. Martinez	- present	channel, total Delta outflow; sea water intrusion; near industrial complex discharging wastewater.	and sill station (exports to Bay) in the western estuary.	USBR started salinity monitoring at nearby shore site. 1968 - station established for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. Ongoing discrete water quality monitoring.	location D6A: Automated continuous water quality monitoring in compliance with D-1641	WQ
D7	Grizzly Bay @ Dolphin nr. Suisun Slough	Jan. 1975 - present	Shallow embayment, high tidal flows; salinity intrusion at low Delta outflows; point of entry of many sloughs and return waters.	Long-term benthos station, ambient station representing shallow, open estuarine embayment habitat. Strong tidal current and water exchange with Suisun marsh. At low flows salinity can be high. Important site for monitoring of the invasive clam <i>Potamocorbula</i> . Strongly invaded by <i>Potamocorbula</i> with subsequent	1968 - established for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. Ongoing discrete water quality monitoring.		Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
				declines in plankton densities.			
D8	Suisun Bay off Middle Point nr. Nichols	Jan.1975 - present	Deep channel, high tidal flows; salinity intrusion at low Delta outflows; near industrial complex discharging wastewaters.		1968 - established for the San Luis Drain Program within the combined USBR-DWR Delta-Suisun Bay surveillance Program. Ongoing discrete water quality monitoring.	Close to USBR EC-compliance monitoring station C14 at Port Chicago	Discrete WQ
D9	Honker Bay near Wheeler Point	Jan.1975 - Dec.1995	n/p	Ambient station representing ecologically important shallow estuarine embayment habitat in estuarine transition zone with high variability in salinity. Deposition zone for upper Suisun Bay. Receives Yolo Bypass outflow.	1974-established for the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1995 - Discontinued because cluster analyses showed that data from this site was similar enough to that of stations D7 and D8. In 2001-2002, EMP reviewers recommended reestablishment of this shallow-water		Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale- 2002	Historical Notes	Related Monitoring	SubProject
					station.		
EZ2	Entrapment Zone - 2000 μ S/cm bottom EC	Jan.1996 - present	n/p	Long-term zooplankton station, important for tracking of X2 relationships.	1996 - established for monitoring the entrapment zone. Ongoing - Field WQ and Chlorophyll data are recorded to complement zooplankton sampling.		Discrete WQ
EZ6	Entrapment Zone - 6000 μ S/cm bottom EC	Jan.1996 - present	n/p	Long-term zooplankton station, important for tracking of X2 relationships.	1996 - established for monitoring the entrapment zone Ongoing - Field WQ and Chlorophyll data are recorded to complement zooplankton sampling.		Discrete WQ
MD10	Disappointment Slough @ Bishop Cut	Jan.1975 - Dec.1994	n/p		1974 - station established for the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1994 - Discontinued . Replaced by nearby mid-channel station	Discrete water quality, phytoplankton and zooplankton monitoring at MD10A in compliance with D-1641.	Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale- 2002	Historical Notes	Related Monitoring	SubProject
					MD10A in January 1995.		
MD10A	Disappointment Slough @ Bishop Cut	Jan.1995 - present	n/p	Ambient station, the only station representing the eastern Delta after 1995, smaller "backwater" tidal river channel	1995 - established to replace MD10, which was a shore station nearby. Ongoing discrete water quality monitoring.		Discrete WQ
MD6	Sycamore Slough near Mouth	Feb.1975 - Sep.1983	Eastern Delta location.		1974 - established for the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1983 - Discontinued . Reasons for termination undocumented, but likely related to the failure of the Terminous bridge blocking access by boat.		Discrete WQ
MD7	South Fork Mokelumne below Sycamore Slough	Feb.1975 - Sep.1983	n/p		1974 - established for the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1983 - Discontinued		Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
					. 1985 - Replaced by station MD7A, located just south of the bridge. Reasons for termination undocumented, but likely related to the failure of the Terminous bridge blocking access by boat.		
MD7A	Little Potato Slough @ Terminous	Jan.1985 - Dec.1995	Inter-Delta flows, salinity standard established in 1965		1985 - established to replace station MD7. Note that MD7 was discontinued in September 1983. 1995 - Discontinued .	At nearby location: Salinity and temperature are monitored in compliance with D-1641 by USBR-Centra Valley Operations at nearby station C13 (USBR station name "Staten Island," CDEC code STI).	Discrete WQ
NZ002	Carquinez Strait near Glencove Harbor	May.1998 - present	n/p	Zooplankton station in the estuarine transition zone, important for tracking of X2 relationships.	1996 - Included when IEP-EMP zooplankton and water quality cruises were combined. Ongoing -		Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale- 2002	Historical Notes	Related Monitoring	SubProject
					Field WQ and Chlorophyll data are recorded to complement zooplankton sampling.		
NZ004	Carquinez Strait near Ozol Pier	May.1998 - present	n/p	Zooplankton station in the estuarine transition zone, important for tracking of X2 relationships.	1996 - Included when IEP-EMP zooplankton and water quality cruises were combined. Ongoing - Field WQ and Chlorophyll data are recorded to complement zooplankton sampling.		Discrete WQ
NZ032	Montezuma Slough, 2nd bend from mouth	Jan.1996 - present	n/p	Zooplankton station in a large slough of the interior Suisun Marsh. Ecologically important tidal marsh slough habitat.	1996 - Included when IEP-EMP zooplankton and water quality cruises were combined. Ongoing - Field WQ and Chlorophyll data are recorded to complement zooplankton sampling.		Discrete WQ
NZ325	San Pablo Bay near Rock Wall and Light 15	May.1998 - present	n/p	Zooplankton station in the estuarine transition zone,	1996 - Included when IEP-EMP zooplankton		Discrete WQ

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				important for tracking of X2 relationships.	and water quality cruises were combined. Ongoing - Field WQ and Chlorophyll data are recorded to complement zooplankton sampling.		
NZS42	Suisun Slough @ Volanti Slough	Jan.1996 - present	n/p	Zooplankton station in a large slough of the interior Suisun Marsh. Ecologically important tidal marsh slough habitat. D-1641: Specific conductivity water quality objective.	1996 - Included when IEP-EMP zooplankton and water quality cruises were combined. Ongoing - Field WQ and Chlorophyll data are recorded to complement zooplankton sampling.		Discrete WQ
P10	Middle River @ Victoria canal	Mar.1976 - Oct.1982	n/p		1967- established for the Peripheral Canal Study Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1982 - discontinued because road traffic conditions had made		Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale-2002	Historical Notes	Related Monitoring	SubProject
					access to the sampling location too dangerous; replaced by nearby station P10A in November.		
P10A	Middle River @ Union Pt.	Oct.1982 - Dec.1995	n/p		1982 - established in 1982 to replace station nearby station P10. 1995 - discontinued .		Discrete WQ
P12	Old River @ Tracy Road Bridge	Jan.1975 - Aug.1991	n/p		1968 - established for the Peripheral Canal Study Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1991 - discontinued because road traffic conditions had made access to the sampling location too dangerous; replaced in September by nearby station P12A.		Discrete WQ
P12A	Old River @ Oak Island	Sep.1991 -	n/p		1991 - station	At this location:	Discrete WQ

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Code	Name	Data Availability	Rationale -1970	Rationale- 2002	Historical Notes	Related Monitoring	SubProject
		Dec.1995			established in September to replace station P12. 1995 - Discontinued .	Salinity and Temperature are monitored in compliance with D-1641 by DWR-Central District (Central District station code "5380")	
P2	Mokelumne River @ Franklin road bridge	Jan.1975 - Dec.1977	n/p		1968 - established for the Peripheral Canal Study Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1977 - Discontinued ; reasons for termination undocumented.		Discrete WQ
P8	San Joaquin River @ Buckley Cove	Feb.1975 - present	Summer time oxygen sags due to high discharges of cannery wastes and deep channel with low tidal flow in relation to channel size.	Ambient San Joaquin River monitoring station near southern endpoint for Stockton Ship Channel D.O. monitoring. Frequently occurring dissolved sags, high productivity. Data extensively used by CVRWQCB.	1968 – established for the Peripheral Canal Study Program, within the combined USBR-DWR Delta-Suisun Bay Surveillance Program. Ongoing discrete water quality monitoring.		Discrete WQ

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S42	Suisun Slough 300' south of Volanti Slough	Feb.1978 - Oct.1984	Interior of Suisun Marsh.	Continuous Specific conductivity and Temperature monitoring station in a large slough of the interior Suisun Marsh. Ecologically important tidal marsh slough habitat. D-1641: Specific conductivity water quality objective.	1969 - established for the Suisun Marsh Research and Testing Program under the combined USBR-DWR Delta-Suisun Bay Surveillance Program. 1978 - first discrete water quality sampling by IEP-EMP in February. 1984 - discontinued ; reason for termination undocumented but related to difficulty of access to the site by road, especially in the winter months.	At nearby location: Water quality field measurements and chlorophyll have been taken at nearby station NZS42 since 1996.	Discrete WQ