Marin County Flood Control-Stream Maintenance Program Master Site List-2021

Blue = Large sediment removal projects not included in SMP

									Substrate		Permits					Vegetation Maintenance										Facilities					Plant Community					Special Status Plants						Special Status Wildlife								
Site ID	Vegetation Project Area (CDFW)	Map # 2021	Creek	Location Description	Site Location Notes	Vegetation Maintenance	Sediment removal	Tidal Character	Natural Bottom	Con-crete	RWQCB WDR/401	DFW 1600 RMA	USACE Permit Needed	Special Status Species	Partner	Fire fuel reduction on top of bank	Duration of Work	Limb and trim top of bank and side slopes of channel	Remove vegetation within channel bottom	Clear trash and debris from creek	Remove fallen trees	Hazard tree removal	Remove invasive non-native plants	Revegetation with native plant species	Cattail cutting	Erosion Control	Pump Station	Tide gate	Trash Rack	Levee Mainten ance	California annual grass-land	Northern coastal salt marsh	Diked Bay-lands	North coast riparian scrub/ forest	Mixed evergreen forest	Pt. Reyes bird's beak	Congest ed-headed hayfield tar-plant	Marsh micro-seris	Marin knot-weed	White-rayed pentach aeta	Two-fork clover	Coho	Steel head	Monarch butterfly	CA red-legged frog	Weste rn pond turtle	CA Ridgw ay's rail	CA black rail	Salt marsh harvest mouse	Bats ssp
FLOOD CONTROL ZONE 1 - NOVATO																																																		
1-AA-1	Arroyo Avichi	2	Arroyo Avichi	Novato Creek to culvert at Novato Blvd	End of pipe to Novato Creek	X		Tidal	X		Yes	Yes	N/A		MCFCWCD		1-2	X	X	X	X	X	X					X						X																
1-AA-2	Arroyo Avichi	2	Arroyo Avichi	US of bypass to 1575 Indian Valley Rd	US of bypass to 1575 Indian Valley Road	X	X	Non-tidal	X		Yes	Yes	No		MCFCWCD		2-3	X	X	X	X	X	X			X								X																
1-ASJ-1	Arroyo de San Jose Lower Complex	3	Arroyo de San Jose	Pacheco Pond to Hwy 101	Pacheco Pond to Hwy 101	X		Non-tidal	X		Yes	Yes	N/A	X	MCFCWCD	X	2-3	X	X	X	X	X	X			X								X			X								X					
1-ASJ-2	Arroyo de San Jose Upper Complex	3	Arroyo de San Jose	Hwy 101 to silt basin US of Ignacio Blvd	101- Ignacio Blvd; inc silt basin	X	X	Non-tidal		X	Yes	Yes	Yes	X	MCFCWCD	X	2	X	X	X	X	X	X			X								X			X													
1-ASJ-3	Arroyo de San Jose Upper Complex	3	Arroyo de San Jose	Ignacio Blvd to Birdie Dr	Ignacio Blvd US to Birdie Dr	X		Non-tidal	X		Yes	Yes	N/A	X	MCFCWCD		2	X	X	X	X	X	X	X		X								X			X													
1-BB-1	Baccaglio Basin	2	Baccaglio Basin	Baccaglio Basin	Baccaglio Bypass; Arroyo Avichi trash rack to Basin	X	X	Non-tidal	X		Yes	Yes	No		MCFCWCD	X	2	X	X	X	X	X	X		X	X							X																	
1-BB-2	Baccaglio Basin	2	Baccaglio Basin	Baccaglio Bypass; Arroyo Avichi trash rack to Basin	Baccaglio Basin US to AA trash rack	X		Non-tidal		X	Yes	Yes	N/A		MCFCWCD	X	2	X	X	X	X	X	X											X																	
1-CHE-2	Cheda Creek Upland	2	Cheda Creek	Novato Blvd to Cowbarn Ln	Novato Blvd to Cowbarn Ln	X		Non-tidal	X		Yes	Yes	N/A		MCFCWCD		1-2	X	X	X	X	X	X		X	X								X																	
1-IGN	Arroyo de San Jose Upper Complex	3	Ignacio Creek	Ignacio Blvd to College of Marin campus		X		Non-tidal	X		Yes	Yes	N/A		MCFCWCD	X	2-3	X	X	X	X	X	X			X								X																	
1-LYC	Lynwood Creek	2	Lynwood Creek	Off Rowland Blvd	Off Rowland Blvd	X		Non-tidal	X		Yes	Yes	N/A	X	MCFCWCD	X	1-2	X	X	X	X	X	X		X	X								X											X					
1-LYS	N/A	2	Lynwood Slough	Behind Vintage Oaks Shopping Center at Lynwood Pump Station	Behind Vintage Oaks mall			Non-tidal	X		Yes	Yes	N/A		MCFCWCD	X										X	X		X	X	X																				
1-NMWD-1	N/A	4	Novato Creek	Novato Creek at Jim Grossi Ranch US of Stafford Lake			X	Non-tidal	X		Yes	Yes	No		NMWD		2-3																		X																
1-NMWD-2	N/A	4	Trib to Stafford Lake	Tributary to Stafford Lake near Indian Valley Golf Course			X	Non-tidal	X		Yes	Yes	No		NMWD		1-2																		X																
1-NOV-1	Novato Baylands	2	Novato Creek	Mouth to Redwood Blvd	Mouth of Novato Ck to Redwood Blvd	X		Tidal	X		Yes	Yes	N/A	X	MCFCWCD	X	3-4	X	X	X	X	X	X			X	X	X		X	X													X		X	X	X	X	
1-NOV-2	Upper Novato Creek Area	1	Novato Creek	Redwood Blvd to upper tidal extent	Redwood Blvd to upper tidal extent	X		Tidal	X		Yes	Yes	N/A	X	MCFCWCD		2-3	X	X	X	X	X	X			X								X											X						
1-NOV-3	Upper Novato Creek Area	1	Novato Creek	Above tidal extent to Thorsen Ct	Above tidal extent to Thorsen Ct	X		Non-tidal	X		Yes	Yes	N/A	X	MCFCWCD, STRAW		3-4	X	X	X	X	X	X	X		X								X											X						
1-NOV-SR	N/A	n/a	Novato Creek	Novato Creek Sediment Removal							NO	NO																																						
1-PAC-1	Arroyo de San Jose Lower Complex	3	Pacheco Creek	Pacheco Pond to Hwy 101	Pacheco Pond to 101	X		Non-tidal	X		Yes	Yes	N/A		MCFCWCD	X	2-3	X	X	X	X	X	X			X								X																	
1-PAC-2	Pacheco Creek Upland Complex	3	Pacheco Creek	Hwy 101 to 99 Pacheco Creek Dr.		X		Non-tidal	X		Yes	Yes	N/A		MCFCWCD		2-3	X	X	X	X	X	X			X								X																	
1-PAC-3	Pacheco Creek Upland Complex	3	Pacheco Creek NF	Parallel to Oak Forest Rd	Pacheco Creek tributary	X		Non-tidal	X		Yes	Yes	N/A		MCFCWCD		1	X	X	X	X	X	X											X																	
1-RUSH	Rush Creek	1	Rush Creek	N of Railroad Ave to Binford Rd (excluding Caltrans ROW)	N of Olive Ave, end of Railroad Ave to Caltrans ROW; culvert outfalls east of Binford Rd (Vegetation only)	X	X	Tidal	X		Yes	Yes	Yes	X	MCFCWCD	X	1-2	X	X	X	X	X	X					X			X																X	X	X		
1-SMC	Upper Novato Creek Area	1	San Marin Creek	Between Leese Ln and Driftwood Ave	Btwn Leese Ln and Driftwood Ave	X		Non-tidal	X		Yes	Yes	N/A	X	MCFCWCD		2-3	X	X	X	X	X	X											X												X					
1-SRC	Upper Novato Creek Area	1	San Ramon Creek	Between shopping center and Poplar Dr	Btwn shopping center & Poplar Dr	X		Non-tidal	X		Yes	Yes	N/A	X	MCFCWCD	X	2-3	X	X	X	X	X	X											X											X					
1-VIN	Novato Creek Tributaries	1	Vineyard Creek	US to 2590 Vineyard Rd		X	X	Non-tidal	X		Yes	Yes	No	X	MCFCWCD, STRAW	X	2-3	X	X	X	X	X	X	X		X								X										X						
1-WAR-1	Novato Creek Tributaries	1	Warner Creek	Novato Creek to Diablo Ave	Diablo Ave to confluence w/Novato Ck	X		Tidal	X		Yes	Yes	N/A	X	MCFCWCD		2	X	X	X	X	X	X			X						X		X										X						X
1-WAR-2	Novato Creek Tributaries	1	Warner Creek	Diablo Ave to confluence with Vineyard Creek	Confluence w/Vineyard Cr to Diablo Ave	X		Non-tidal	X		Yes	Yes	N/A	X	MCFCWCD	X	2-3	X	X	X	X	X	X	X		X								X										X			X			
1-WIL	Novato Creek Tributaries	1	Wilson Creek	Warner Creek confluence to 630 Wilson Ave		X		Non-tidal	X		Yes	Yes	N/A		MCFCWCD	X	2-3	X		X	X	X	X	X		X								X																	
FLOOD CONTROL ZONE 3 - RICHARDSON BAY																																																		
3-BM	N/A	11	Bothin Marsh	E. Blithedale Ave at Roque Moraes Dr	btwn bike path & E Blithedale Ave - Bothin Marsh		X	Tidal	X		Yes	Yes	Yes	X	MCFCWCD		1-2															X				X											X	X		
3-COY-SR	N/A	n/a	Coyote Creek	Coyote Creek Sediment Removal Shoreline Hwy to DS end of concrete channel							NO	NO																																							
3-COY-1	N/A	12	Coyote Creek	Shoreline Hwy to start of concrete channel	Coyote Creek; Shoreline Hwy to start of concrete channel			Tidal	X				Yes	X	MCFCWCD	X	1-2									X		X		X		X															X	X	X	
3-COY-2	Zone 3	12	Coyote Creek	Start of concrete channel to Laurel Way	Beginning of Concrete Channel to Laurel Way	X	X	Tidal		X	Yes	Yes	Yes		MCFCWCD		2	X		X	X		X			X		X						X																
3-COY-3	Zone 3	12	Coyote Creek	Laurel Way to US of Ash St	Concrete channel from Laurel Way to Maple Ave	X	X	Non-tidal		X	Yes	Yes	Yes		MCFCWCD		1	X		X	X		X			X		X						X																
3-COY-5	Zone 3	12	Coyote Creek South Fork	450-456 Marin Ave; upstream of south fork inlet	Upstream of south fork inlet	X		Non-tidal	X		Yes	Yes	No		MCFCWCD		1	X		X	X		X											X																
3-CRE-1	N/A	12	Crest Marin Creek	Flamingo Rd to Ross Dr	Birdland Access Stretch		X	Non-tidal	X		Yes	Yes	No		MCFCWCD	X	2		X								X	X			X																			
3-CRE-2	N/A	12	Crest Marin Creek	End of Laurel Way	(concrete) and natural channel		X	Non-tidal	X	X	Yes	Yes	No		MCFCWCD		1-2																	X	X														
3-MIL-1	N/A	11	Miller Ave drainage	Just S of Miller Ave/Camino Alto intersection	North outfalls; earth & concrete		X	Tidal	X	X	Yes	Yes	Yes	X	MCFCWCD		2-3														X															X	X	X	
3-MIL-2	N/A	11	Miller Ave drainage	E side of Miller Ave across from Tamalpais HS	from Tamalpais HS; not concrete-lined		X	Tidal	X		Yes	Yes	?	X	MCFCWCD		1														X															X	X	X	
3-MIL-3	N/A	12	Miller Ave drainage	Across from Tamalpais HS track between Miller Ave and Bothin Marsh multiuse path	Almonte Blvd and Miller Ave		X	Tidal	X		Yes	Yes	Yes	X	MCFCWCD		2-3														X					X									X	X	X	
3-NYH-1	N/A	12	Nyhan Creek	Nyhan Creek - near intersection of Enterprise Concourse w/ Tenn. Valley Road	Nyhan Creek at Enterprise Concourse		X	Tidal	X		Yes	Yes	Yes		MCFCWCD	X	1-2	X	X	X	X	X	X			X								X																
3-NYH-2	N/A	12	Nyhan Creek tributary	Channel behind Tamalpais Valley Elementary School	Tamalpais Valley Elementary School Channel		X	Non-tidal		X	Yes	Yes	No		MCFCWCD		1	X	X	X	X	X	X											X																
3-REED-1	N/A	11	Reed Creek	ACMP confluence US approximately 200 ft	Presidio (private property)		X	Tidal	X		Yes	Yes	?	X	MCFCWCD		1	X		X	X	X	X	X							X												X							
3-RYC-1	N/A	11	Ryan Creek	~150 ft upstream of Camino Alto and under road	~150 ft upstream of Camino Alto and under road		X	Non-tidal	X		Yes	Yes	?	X	MCFCWCD		1-2										X	X					X			X														
3-SUT-1	N/A	11	Sutton Manor	Roque Moraes Dr just S of E. Blithedale Ave	btwn bike path & Roque Moraes - Bothin Marsh		X	Tidal	X		Yes	Yes	Yes	X	City of Mill Valley		1-2														X					X										X	X		
3-SUT-2	N/A	11	Sutton Manor	Roque Moraes Dr to Ashford Ave	Roque Moraes to Ashford		X	Tidal	X		Yes	Yes	Yes		City of Mill Valley		1	X	X	X	X	X	X	X							X																			
3-SUT-3	N/A	11	Sutton Manor	Ashford Ave to Dorset Ln	Ashford to Dorset (more or less)		X	Tidal		X	Yes	Yes	Yes		City of Mill Valley		1-2	X	X	X	X	X	X	X							X																			
3-SUT-4	N/A	11	Sutton Manor	Dorset Ln to Shell Rd ditch	Above Dorset		X	Non-tidal		X	Yes	Yes	No		City of Mill Valley		1	X	X	X	X	X	X	X							X																			
3-SUT-5	N/A	11	Sutton Manor	Shell Rd ditch parallel to Shell Rd	Shell Rd Ditch		X	Non-tidal	X	X	Yes	Yes	No		City of Mill Valley		1	X	X	X	X	X	X								X																			
FLOOD CONTROL ZONE 4 - BEL AIRE AND STRAWBERRY CIRCLE																																																		
4-EAST-1	Zone 4	10	East Creek	From Tiburon Blvd US to tidal extent (approx 350 ft)		X		Tidal	X		Yes	Yes	N/A	X	MCFCWCD	X	1	X	X	X	X	X	X	X			X					X															X	X		
4-EAST-2	Zone 4	10	East Creek	DS of Cecilia Way; ditch from Cecilia Way upstream to end of Karen Wa	East Creek downstream of Cecilia Way.	X	X	Non-tidal	X		Yes	Yes			MCFCWCD		1	X	X	X	X	X	X	X	X						X			X																	
4-WEST-1	Zone 4	10	West Creek	From Tiburon Blvd US to tidal extent (approx 425 ft)	Sediment removal at Pamela Ct.	X	X	Tidal	X		Yes	Yes	Yes		MCFCWCD, STRAW	X	1	X	X	X	X	X	X	X			X	X			X																				
4-WEST-2	Zone 4	10	West Creek	From tidal extent US to Via Los Altos and a 100 ft section US of Reedlands Woods Way	Sediment removal at Cecilia Way	X	X	Non-tidal	X		Yes	Yes	No		MCFCWCD, STRAW		1-2	X	X	X	X	X	X	X										X																	
FLOOD CONTROL ZONE 5 - STINSON BEACH																																																		
5-EAS-1	Zone 5	13	Easkoot Creek	Calle del Ribera to Calle de Pinos	Mouth to Calle del Pinos	X		Tidal	X		Yes	No	Yes	X	MCFCWCD		1-2	X	X	X	X	X	X	X										X		X					X		X	X	X		X	X		
5-EAS-2	N/A	13	Easkoot Creek	Sediment trap on NPS land			X	Non-tidal			Yes	No	Yes	X	MCFCWCD		1-2																	X		X							X	X	X					
5-EAS-3	Zone 5	13	Easkoot Creek	250 ft DS of Arenal Ave to 200 ft US of Hwy 1	Calle del Pinos to 200 upstream of HWY 1 (Arenal Bridge)	X	X	Non-tidal	X		Yes	No	Yes	X	MCFCWCD		1-2	X	X	X	X	X	X	X										X		X					X		X	X	X					
FLOOD CONTROL ZONE 7 - SANTA VENETIA																																																		
7-GAL	N/A	6	Gallinas Creek South Fork	South Fork; Behind Vendola Dr from Meadow Way to Pump Station 5	levees; redwood planter box repair only			Tidal	X		Yes	Yes	N/A	X	MCFCWCD	X	2-3						X	X		X			X	X	X															X	X	X	
7-PS-2	Zone 7	6	Gallinas Creek South Fork	Pump Station #4 detention basin		X	X	Non-tidal	X		Yes	Yes	No		MCFCWCD	X	1								X		X	X			X		X																
7-SOD	N/A	6	Gallinas Creek South Fork	Sunny Oaks Drain; NW of E. Vendola Dr intersection with N. San Pedro Rd	Fuels reduction on private property		X	Non-tidal	X		Yes	Yes	No		MCFCWCD	X	1								X						X																		

Site ID	Vegetation Project Area (CDFW)	Map # 2021	Creek	Location Description	Site Location Notes	Vegetation Maintenance	Sediment removal	Tidal Character	Natural Bottom	Con-crete	RWQCB WDR/401	DFW 1600 RMA	USACE Permit Needed	Special Status Species	Partner	Fire fuel reduction on top of bank	Duration of Work	Limb and trim top of bank and side slopes of channel	Remove vegetation within channel bottom	Clear trash and debris from creek	Remove fallen trees	Hazard tree removal	Remove invasive non-native plants	Revegetation with native plant species	Cattail cutting	Erosion Control	Pump Station	Tide gate	Trash Rack	Levee Maintenance	California annual grass-land	Northern coastal salt marsh	Diked Bay-lands	North coast riparian scrub/ forest	Mixed evergreen forest	Pt. Reyes bird's beak	Congested-headed hayfield tar-plant	Marsh micro-seris	Marin knot-weed	White-rayed pentach aeta	Two-fork clover	Coho	Steel head	Monarch butterfly	CA red-legged frog	Western pond turtle	CA Ridgway's rail	CA black rail	Salt marsh harvest mouse	Bats ssp
FLOOD CONTROL ZONE 9 - ROSS VALLEY																																																		
9-CCT	N/A	8	Corte Madera Creek	10-14 College Ave			X	Tidal	X		Yes	Yes	Yes		City of Larkspur		1-2															X															X	X	X	
9-CMC-SR	N/A	n/a	Corte Madera Creek	Mouth to stilling basin; USACE project							NO	No	N/A																																					
9-CMC-2	Lower Corte Madera Creek Complex	8	Corte Madera Creek	Corte Madera Creek concrete channel outfall US to tidal limit;	Corte Madera Creek concrete channel outfallUS to tidal limit (at Kentfield Rehab Hospital)	X		Tidal		X	Yes	Yes (Veg Only)	Yes	X	MCFCWCD		2	X		X	X	X	X				X						X								X								
9-CMC-3A	Lower Corte Madera Creek Complex	8	Corte Madera Creek	Concrete channel from tidal extent at Kentfield Rehab US to end of concrete channel	From tidal limit (at Kentfield Rehab Hospital) US to end of concrete channel	X	X	Non-tidal		X	Yes	Yes	Yes	X	MCFCWCD		2	X		X	X	X	X	X		X		X					X								X								
9-CMC-3B	Lower Corte Madera Creek Complex	8	Corte Madera Creek	Natural channel from end of concrete channel US to Lagunitas Rd Bridge	From end of concrete channel US to Lagunitas Rd Bridge		X	Non-tidal	X		Yes	Yes	Yes	X	MCFCWCD		2									X							X								X								
9-FAIR	Fairfax Creek	7	Fairfax Creek	From San Anselmo Cr to Sunnyside Nursery	Starting at outfall at Town Hall to Sunnyside Nursery	X		Non-tidal	X		Yes	Yes	N/A	X	Town of Fairfax		2-3	X	X	X	X	X	X	X																	X								
9-LAR-2	N/A	9	Larkspur Creek	Above tidal extent to end of Madrone Ave			X	Non-tidal	X		Yes	Yes	No	X	MCFCWCD, City of Larkspur		3-4																		X			X				X							
9-MAG-1	N/A	9	Corte Madera Creek	1100 Magnolia Ave			X	Tidal	X		Yes	Yes	Yes		City of Larkspur		1-2								X							X														X	X	X	
9-MAG-2	N/A	9	Corte Madera Creek	1028 Magnolia Ave			X	Tidal	X		Yes	Yes	Yes		City of Larkspur		1-2								X							X														X	X	X	
9-MAG-3	N/A	9	Corte Madera Creek	965 Magnolia Ave			X	Tidal	X		Yes	Yes	Yes		City of Larkspur		1-2								X							X														X	X	X	
9-MAG-4	N/A	9	ditch flows into Corte Madera Creek	600 Magnolia Ave.			X	Non-tidal	X		Yes	Yes	No		City of Larkspur		1-2																																
9-MUR	Lower Corte Madera Creek Complex	8	Murphy Creek	From the Murphy Creek culvert at Kent Ave US to border of the Town of Ross, including culverts and crossings	Vegetation maintenance includes community efforts US of College of Marin	X	X	Tidal 30ft US only	X		Yes	Yes	Yes		MCFCWCD, DPW		2-3	X	X	X	X	X	X	X																										
9-SHC-2	Upper Corte Madera Creek Complex	7	Sleepy Hollow Creek	From San Anselmo town limit to confluence with Van Winkle Cr		X		Non-tidal	X		Yes	Yes	N/A	X	MCFCWCD		2-3	X	X	X	X	X	X	X																	X								
9-SHC-3	N/A	7	Sleepy Hollow Creek trib	300 Hidden Valley Ln culvert			X	Non-tidal	X		Yes	Yes	No		MC Roads		1-2																		X														
9-SHC-4	N/A	7	Sleepy Hollow Creek	960 Butterfield Rd/Green Valley Ct			X	Non-tidal	X		Yes	Yes	No	X	MC Roads		1-2																		X							X							
9-SHC-5	N/A	7	Sleepy Hollow Creek	Butterfield Rd/Sleepy Hollow Dr bridge			X	Non-tidal	X		Yes	Yes	No	X	MC Roads		1-2																		X							X							
9-SHC-6	N/A	7	Sleepy Hollow Creek	Katrina Ln			X	Non-tidal	X		Yes	Yes	No	X	MC Roads		2-3																		X							X							
9-SHC-7	N/A	7	Sleepy Hollow Creek	Van Winkle Dr culvert			X	Non-tidal	X		Yes	Yes	No		MC Roads		1-2																		X														
9-VAN-1	Upper Corte Madera Creek Complex	7	Van Winkle Creek	Sleepy Hollow Cr to 275 Van Winkle		X		Non-tidal	X		Yes	Yes	N/A		MCFCWCD		2	X	X	X	X	X	X	X												X														
9-VAN-2	N/A	7	Van Winkle Creek	Ichabod Ct culvert			X	Non-tidal	X		Yes	Yes	No		MC Roads		1-2																		X														
9-VAN-3	N/A	7	Van Winkle Creek	Tappan Rd culvert			X	Non-tidal	X		Yes	Yes	No		MC Roads		1-2																		X														
9-VAN-4	N/A	7	Van Winkle Creek	Mather Rd culvert			X	Non-tidal	X		Yes	Yes	No		MC Roads		1-2																		X														
9-VAN-5	N/A	7	ditches to Van Winkle Creek	155 and 201 Van Winkle Drive	2 sediment removal sites in ditch (155 and 201 Van Winkle Dr)		X	Non-tidal	X		Yes	Yes	No		MC Roads		1-2																		X														
9-VAN-6	N/A	7	Van Winkle Creek	Manitou Dr culvert			X	Non-tidal	X		Yes	Yes	No		MC Roads		2-3																		X														
9-WARD	N/A	9	Larkspur Creek	Outfall from city parking lot at 500 Magnolia, across from 25 Ward St			X	Non-tidal	X		Yes	Yes	Yes		City of Larkspur		1-2														X																		
9-WILL	N/A	9	roadside ditch into marsh	444 block of William Ave.			X	Partially tidal	X		Yes	Yes	No		City of Larkspur		1																																
COUNTY SERVICE AREA 13 - UPPER LUCAS VALLEY																																																		
CSA-13-MC	CSA 13	5	Miller Creek	From Mt McKinley Rd to Mt Lassen Dr (including Lucas Valley Elementary School), and at Miller Creek Middle School (outside of CSA 13)	Miller Creek, including STRAW project sites	X		Non-tidal	X		Yes	Yes	N/A	X	MCFCWCD; STRAW		5-6	X		X	X		X	X												X							X							X