# **QAPP** Amendment Form

PROGRAM: Delta Regional Monitoring Program (DRMP)

PROJECT: Constituents of Emerging Concern (CEC)

QAPP VERSION: Version 2.0

PREPARED BY: MLJ Environmental

DATE SUBMITTED: November 3, 2021

# Title: Amendment to the Suspended Sediment Concentration (SCC) Method Reference

#### Section of QAPP affected:

Table 7-3, Method detection limits for chemical analytes.

#### **Reason for Changes:**

The method by which Weck Laboratories analyzes Suspended Sediment Concentration (SSC) is ASTM D3977-97. Table 7-3 incorrectly lists the method as MPSL-108. The correct method (ASTM D3977-97) is referenced correctly in all other places within the QAPP.

This form is to document this correction to Table 7-3 to be consistent with the rest of the QAPP and reflective of the methods being employed by the laboratory.

## **Detail of Changes:**

The reference to MPSL-108 in Table 7-3 of the DRMP CEC QAPP has been updated to ASTM D3977-97, as detailed below.

Table 7-3. Method detection limits for chemical analytes.

Matrix /	Analyte	CEDEN	Mon	Targ	MDL	RL	Units	Lab	Method	
Analyte		Matrix Code	Trigger	et RL						
Type			Level	(1/2						
			(MTL)	MTL)						
	Water									
Required	Estrone	samplewater	6.0	3.0	10	10	ng/L	Weck	Hormones by LCMSMS-	
									APCI+ by EPA 1694M-	
									APCI	
Required	17-beta-estradiol	samplewater	2.0	1.0	10	10	ng/L	Weck	Hormones by LCMSMS-	
									APCI+ by EPA 1694M-	
									APCI	
Required	Ibuprofen	samplewater	100	50	5	10	ng/L	Weck	Pharmaceuticals by	
									LCMSMS-ESI- by EPA	
									1694M-ESI-	
Required	Diclofenac	samplewater	100	50	0.26	10	ng/L	Weck	Pharmaceuticals by	
									LCMSMS-ESI- by EPA	
									1694M-ESI-	
Required	Galaxolide (HHCB)	samplewater	700	350	0.1	1	ng/L	Physis	EPA 625.1M	
Required	Triclosan	samplewater	250	125	10	10	ng/L	Weck	Pharmaceuticals by	
									LCMSMS-ESI- by EPA	
									1694M-ESI-	
Required	Triclocarban	samplewater	-	-	TBD1	TBD <sup>1</sup>	ng/L	Physis	EPA 625.1M	
Required	Bisphenol A	samplewater	60	30	2	10	ng/L	Weck	Pharmaceuticals by	
									LCMSMS-ESI- by EPA	
									1694M-ESI-	
Ancillary	Suspended Sediment Concentration	samplewater	n/a	n/a	3.1	5	mg/L	Weck	MPSL 108	
									ASTM D3977-97	
Required	Perfluorooctanesulfonic acid	samplewater	none	n/a	NA <sup>2</sup>	2	ng/L	Vista	Modified EPA 537M	
			listed							
Required	Perfluorooctanoic acid	samplewater	none	1	NA <sup>2</sup>	2	ng/I	Vista	Modified EPA 537M	
Required	1 emuoroocianoic aciu	samplewater	none listed	1	11/4-		ng/L	VISta	Widdiffed El A 33/191	
			usiea							

Matrix / Analyte	Analyte	CEDEN Matrix Code	Mon Trigger	Targ et RL	MDL	RL	Units	Lab	Method
Type			Level (MTL)	(1/2 MTL)					
Additional	Ethynylestradiol, 17alpha-	samplewater	-	-	10	10	ng/L	Weck	Hormones by LCMSMS- APCI+ by EPA 1694M- APCI
Additional	Progesterone	samplewater	-	-	10	10	ng/L	Weck	Hormones by LCMSMS- APCI+ by EPA 1694M- APCI
Additional	Testosterone	samplewater	-	-	10	10	ng/L	Weck	Hormones by LCMSMS- APCI+ by EPA 1694M- APCI
Additional	Gemfibrozil	sample water	-	-	0.08	10	ng/L	Weck	Pharmaceuticals by LCMSMS-ESI- by EPA 1694M-ESI-
Additional	Iopromide	samplewater	-	-	1.8	50	ng/L	Weck	Pharmaceuticals by LCMSMS-ESI- by EPA 1694M-ESI-
Additional	Naproxen	samplewater	-	-	2	10	ng/L	Weck	Pharmaceuticals by LCMSMS-ESI- by EPA 1694M-ESI-
Additional	Salicylic Acid	samplewater	-	-	0.86	500	ng/L	Weck	Pharmaceuticals by LCMSMS-ESI- by EPA 1694M-ESI-
			Sedimer	ıt					
Required	PBDE047 <sup>3</sup>	sediment	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Required	PBDE099 <sup>3</sup>	sediment	-	-	NA <sup>2</sup>	$0.005^{4}$	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Required	Perfluorooctanesulfonate <sup>5</sup>	sediment	-	-	NA <sup>4</sup>	0.016	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Required	Perfluorooctanoate <sup>5</sup>	sediment	-	-	NA <sup>4</sup>	0.016	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	PBDE 028/33	sediment	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 100	sediment	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6

Matrix /	Analyte	CEDEN	Mon	Targ	MDL	RL	Units	Lab	Method
Analyte		Matrix Code	Trigger	et RL					
Type			Level (MTL)	(1/2 MTL)					
Additional	PBDE 153	sediment	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 154	sediment	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 183	sediment	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 209	sediment	-	-	NA <sup>2</sup>	0.05	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Ancillary	Moisture	sediment	-	-	NA	NA	% ww	Axys	SGS Axys MLA-033 Rev 6
Additional	Perfluorobutanoate	sediment	-	-	NA <sup>4</sup>	0.64	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoropentanoate	sediment	-	-	NA <sup>4</sup>	0.32	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorohexanoate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoroheptanoate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorononanoate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorodecanoate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoroundecanoate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorododecanoate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorotridecanoate	sediment	-	-	NA <sup>4</sup>	0.04	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
						0.16			
Additional	Perfluorotetradecanoate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorobutanesulfonate	sediment	-	-	NA <sup>4</sup>	0.04	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
						0.16			
Additional	Perfluoropentanesulfonate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorohexanesulfonate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoroheptanesulfonate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorononanesulfonate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorodecanesulfonate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorododecanesulfonate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Sulfonate, 4:2-	sediment	-	-	NA <sup>4</sup>	0.64	ng/g dw	Axys	SGS Axys MLA-110 Rev 2

Matrix / Analyte	Analyte	CEDEN Matrix Code	Mon Trigger	Targ et RL	MDL	RL	Units	Lab	Method
Type		Matrix Code	Level (MTL)	(1/2 MTL)					
Additional	Fluorotelomer Sulfonate, 6:2-	sediment	-	-	NA <sup>4</sup>	0.64	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Sulfonate, 8:2-	sediment	-	-	NA <sup>4</sup>	0.64	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Carboxylic Acid, 3:3-	sediment	-	-	NA <sup>4</sup>	0.64	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Carboxylic Acid, 5:3-	sediment	-	-	NA <sup>4</sup>	4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Carboxylic Acid, 7:3-	sediment	-	-	NA <sup>4</sup>	4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorooctanesulfonamide	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Methyl-perfluorooctanesulfonamide, N-	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Ethyl-perfluorooctanesulfonamide, N-	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Methyl Perfluorooctane Sulfonamido Acetic Acid, N-	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Ethyl Perfluorooctane Sulfonamido Acetic Acid, N-	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Methyl- perfluorooctanesulfonamidoethanol, N-	sediment	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Ethyl- perfluorooctanesulfonamidoethanol, N-	sediment	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro-2-Propoxypropanoic Acid	sediment	-	-	NA <sup>4</sup>	0.64	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro-3,6-dioxaheptanoate	sediment	-	-	NA <sup>4</sup>	0.32	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro-4-methoxybutanoate	sediment	-	-	NA <sup>4</sup>	0.32	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro-3-methoxypropanoate	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid, 11-	sediment	-	-	NA <sup>4</sup>	0.64	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Chlorohexadecafluoro-3-Oxanonane- 1-Sulfonic Acid, 9-	sediment	-	-	NA <sup>4</sup>	0.64	ng/g dw	Axys	SGS Axys MLA-110 Rev 2

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Matrix / Analyte Type	Analyte	CEDEN Matrix Code	Mon Trigger Level	Targ et RL (1/2	MDL	RL	Units	Lab	Method
			(MTL)	MTL)					
Additional	Dioxa-3H-Perfluorononanoate Acid, 4,8-	sediment	-	-	NA <sup>4</sup>	0.64	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro(2-ethoxyethane)sulfonic acid	sediment	-	-	NA <sup>4</sup>	0.16	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Ancillary	Moisture	sediment	-	-	NA	NA	% ww	Axys	SGS Axys MLA-110 Rev 2
Ancillary	Total Organic Carbon	sediment	-	-	36	200	mg/kg dw	Weck	EPA 9060M
			Bivalve Tis	ssue <sup>6</sup>					
Required	PBDE 047 <sup>3</sup>	tissue	28.9	14.5	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Required	PBDE 099 <sup>3</sup>	tissue	28.9	14.5	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 028/33	tissue	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 100	tissue	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 153	tissue	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 154	tissue	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 183	tissue	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 209	tissue	-	-	NA <sup>2</sup>	0.05	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 028/33	tissue	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Ancillary	Moisture	tissue	-	-	NA	NA	% ww	Axys	SGS Axys MLA-033 Rev 6
Ancillary	Lipid	tissue	-	-	NA	NA	% ww	Axys	SGS Axys MLA-033 Rev 6
			Fish Tiss	ue <sup>7</sup>					
Required	PBDE 047 <sup>3</sup>	tissue	28.9	14.5	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Required	PBDE 099 <sup>3</sup>	tissue	28.9	14.5	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 028/33	tissue	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 100	tissue	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 153	tissue	-	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 154	tissue	_	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6

Matrix /	Analyte	CEDEN	Mon	Targ	MDL	RL	Units	Lab	Method
Analyte		Matrix Code	Trigger	et RL					
Type			Level (MTL)	(1/2 MTL)					
Additional	PBDE 183	tissue	- (IVI I L)	-	NA <sup>2</sup>	0.005	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Additional	PBDE 209	tissue	-	_	NA <sup>2</sup>	0.05	ng/g dw	Axys	SGS Axys MLA-033 Rev 6
Ancillary	Moisture	tissue	-	-	NA <sup>2</sup>	NA	% ww	Axys	SGS Axys MLA-033 Rev 6
Ancillary	Lipid	tissue	-	-	NA	NA	% ww	Axys	SGS Axys MLA-033 Rev 6
Required	Perfluorooctanesulfonate <sup>5</sup>	tissue	1000	500	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Required	Perfluorooctanoate <sup>5</sup>	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorobutanoate	tissue	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoropentanoate	tissue	-	-	NA <sup>4</sup>	0.8	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorohexanoate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoroheptanoate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorononanoate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorodecanoate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoroundecanoate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorododecanoate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorotridecanoate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorotetradecanoate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorobutanesulfonate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoropentanesulfonate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorohexanesulfonate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoroheptanesulfonate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorononanesulfonate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorodecanesulfonate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorododecanesulfonate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Sulfonate, 4:2-	tissue	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2

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Matrix /	Analyte	CEDEN	Mon	Targ	MDL	RL	Units	Lab	Method
Analyte Type		Matrix Code	Trigger Level	et RL (1/2					
Type			(MTL)	MTL)					
Additional	Fluorotelomer Sulfonate, 6:2-	tissue	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Sulfonate, 8:2-	tissue	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Carboxylic Acid, 3:3-	tissue	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Carboxylic Acid, 5:3-	tissue	-	-	NA <sup>4</sup>	10	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Fluorotelomer Carboxylic Acid, 7:3-	tissue	-	-	NA <sup>4</sup>	10	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluorooctanesulfonamide	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Methyl-perfluorooctanesulfonamide, N-	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Ethyl-perfluorooctanesulfonamide, N-	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Methyl Perfluorooctane Sulfonamido Acetic Acid, N-	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Ethyl Perfluorooctane Sulfonamido Acetic Acid, N-	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Methyl- perfluorooctanesulfonamidoethanol, N-	tissue	-	-	NA <sup>4</sup>	4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Ethyl- perfluorooctanesulfonamidoethanol, N-	tissue	-	-	NA <sup>4</sup>	4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro-2-Propoxypropanoic Acid	tissue	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro-3,6-dioxaheptanoate	tissue	-	-	NA <sup>4</sup>	0.8	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro-4-methoxybutanoate	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro-3-methoxypropanoate	tissue	-	-	NA <sup>4</sup>	0.8	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid, 11-	tissue	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Chlorohexadecafluoro-3-Oxanonane- 1-Sulfonic Acid, 9-	tissue	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2

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Matrix /	Analyte	CEDEN	Mon	Targ	MDL	RL	Units	Lab	Method
Analyte		Matrix Code	Trigger	et RL					
Type			Level (MTL)	(1/2 MTL)					
Additional	Dioxa-3H-Perfluorononanoate Acid, 4,8-	tissue	-	-	NA <sup>4</sup>	1.6	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Additional	Perfluoro(2-ethoxyethane)sulfonic acid	tissue	-	-	NA <sup>4</sup>	0.4	ng/g dw	Axys	SGS Axys MLA-110 Rev 2
Ancillary	Moisture	tissue	-	-	NA	NA	% ww	Axys	SGS Axys MLA-110 Rev 2
Ancillary	Lipid	tissue	-	-	NA	NA	% ww	Axys	SGS Axys MLA-110 Rev 2
		Fie	ld Measure	ements8			<u> </u>		
Required	Oxygen, Dissolved	sample water	-	-	-	-	mg/L	field crews	
Required	Oxygen, Dissolved	sample water	-	-	-	-	% saturati on	field crews	
Required	рН	samplewater	-	-	-	-	pН	field crews	
Required	Specific Conductivity	samplewater	-	-	-	-	μS/cm	field crews	
Required	Temperature	samplewater	-	-	-	-	°C	field crews	
Required	Turbidity	samplewater	-	-	-	-	NTU or FNU	field crews	

<sup>&</sup>lt;sup>1</sup> Triclocarban was removed from the analyte list for Year 1 because the planned methodology could not be implemented by the laboratory to meet project requirements. Triclocarban analysis has been reinstated for Year 2, though the analysis is still under method development by Physis; detection and reporting limits are not yet determined. <sup>2</sup>SGS-Axys reports sample specific detection limits (SDLs), which are determined from the data of each individual analysis and vary between analytical batches; the estimated minimum detectable area is determined based on the signal to noise ratio for each individual result, per the method. SDL data will be reported in the MDL field in CEDEN per State Board guidance.

<sup>&</sup>lt;sup>3</sup>While the state guidance only requires/recommends the analysis of 2 forms or congeners of PBDE, the SGS-Axys method includes an additional seven Congeners of Primary Interest, including, importantly PBDE-209.

<sup>&</sup>lt;sup>4</sup>SGS-Axys reports sample specific detection limits (SDLs), which will vary between analytical batches: detection limit is the concentration equivalent of the lowest calibration level prorated to sample size. SDL data will be reported in the MDL field in CEDEN per State Board guidance.

<sup>5</sup>The state guidance requires/recommends monitoring of 2 perfluorinated compounds, PFOS and PFOA. The SGS-AXYS MLA-110 method for water and sediment includes 40 different compounds including both PFOS and PFOA along with 38 others.

 $^6$ Whole clams will be shipped on ice to SGS-AXYS by MLJ. SGS-AXYS will do the shucking and compositing.

<sup>7</sup>Fish tissue will be prepared and composited by staff at the Moss Landing Marine Laboratory and shipped in sample bottles to Axys.

<sup>8</sup>Field crews shall measure standard field water quality parameters using a handheld meter and record readings on the field data sheet.

## Approval:

The amendment(s) detailed within this document shall be effective upon signature completion of all parties listed below. By signing this amendment, all parties listed below acknowledge and accept these changes. A copy of this document shall be distributed to all parties within the QAPP distribution list and shall be included and/or attached to all distributed copies of the original QAPP.

CEC Program Manager:	Docusigned by:  Muissa Turner  97966DD915644446  Melissa Turner	Date: 11/9/2021
CEC Quality Assurance Officer:	Docusigned by:  Will Hagan  A1D771E8E56040F  Will Hagan	Date: 11/9/2021
Quality Assurance Officer, Weck Laboratories:	Docusigned by:  Man Luing  4DC2BDF31A43426  Alan Ching	Date: 11/18/2021
Quality Assurance Representative, CVRWQCB:	Suina Columbia Selina Cole	Date: 11/16/2021
Quality Assurance Officer, SWRCB:	Docusigned by:  Andrew Hamilton  70BACTC276074C6  Andrew Hamilton	Date: 11/17/2021