Attachment 1: Chain of Custody Forms

SWAMP REQUEST FOR ANALYSIS AND CHAIN OF CUSTODY (COC) RECORD

Fiscal Year:	11	**Project ID:**	11SWSBG1	Contact Person:	Autumn Bonnema
Region:		**Season:**	summer	Phone:	831-771-4175
Field Crew:		**Date:**		email:	bonnema@mlml.calstate.edu
				Mailing Address:	7544 Sandholdt Rd.
					Moss Landing, CA 95039

StationCode	Station Name	LabID	Sample Date	Tissue THg	Tissue Archive			# of Containers Plastic Bag	Preservation Frozen
			TOTAL	0	0	0	0	0	0

Comments:

Samples Relinquished by:		**Samples Received by:**		
Name (Print and Sign)	**Date**	**Name (Print and Sign)**		**Date**

Chain of Custody Record

Forest and Rangeland Ecosystem Science Center
Contaminant Ecology Program
Collin Eagles-Smith
3200 SW Jefferson
Corvallis, OR 97330

Transfering to: Name: Address: Phone: Email:	Project: Persons performing analysis:

Sample ID(s)	Sample Description	Analysis Requested

Relinquished By: Print Sign	Date / Time:
Received By: Print Sign	Date / Time:
Relinquished By: Print Sign	Date / Time
Received By: Print Sign	Date / Time:

Attachment 2: Field Data Sheets

SWAMP Tissue Sampling - Non-Trawl (Event Type = TI) **SWB_WildLk_2012**				Entered in d-base (initial/date)		Pg of Pgs
*StationCode: _ _ _ _ _ _ _ _ _ _	*StationName:				*Purpose Failure Code:	Agency
*FundingCode: _1_ _1_ _S_ _W_ _B_ _G_ _0_ _1_	*Date (mm/dd/yyyy): / /					
*Sampling Crew:	ArrivalTime:		BEAUFORT SCALE (see attachment):		WIND DIRECTION (from):	PHOTOS (RB & LB assigned when facing downstream; RENAME to StationCode_yyyy_mm_dd_uniquecode)
	DepartureTime:					
DOMINANTSUBSTRATE: Concrete,Cobble,Gravel,Sand,Mud,Other_____,unk			WATERCOLOR: Colorless, Green, Yellow, Brown			1: (RB / LB / BB / US / DS / ##)
WATERCLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)			OTHER PRESENCE: Vascular,Nonvascular,OilySheen,Foam,Trash,O			2: (RB / LB / BB / US / DS / ##)
Comments:						3: (RB / LB / BB / US / DS / ##)

Tissue Collection

COLLECTION DEVICE: RV _____Masta-Blasta, Big E, Sparky _____, Backpack Model _____, Net (length & mesh) _____

Target:	Lat (dd.ddddd)		Long (dd.ddddd)	-				
GPS Model:		Datum: **NAD83** WGS84	Other _____		*GPS / DGPS	Elevation (ft):		

Location	*Depth (m):		Distance from Bank (m):			Accuracy (ft / m)	Latitude (dd.ddddd)	Longitude (-ddd.ddddd)	Depth (m)
COLLECTION METHOD:	E-boat, Backpack shocker, Fyke net, gill net, seine, hook & line			Start Time	Coord. 1				
SAMPLE LOCATION:	Bank, Thalweg, Midchannel, Open Water, NA				Coord. 2				
HYDROMODIFICATION:	None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert,			End Time	Coord. 3				
HYDROMODLOC(to sample):	US / DS / NA/ WI	Other _____	Geoshape: Line Poly Point		Coord. 4				
Location	*Depth (m):		Distance from Bank (m):				Latitude (dd.ddddd)	Longitude (-ddd.ddddd)	Depth (m)
COLLECTION METHOD:	E-boat, Backpack shocker, Fyke net, gill net, seine, hook & line			Start Time	Coord. 1				
SAMPLE LOCATION:	Bank, Thalweg, Midchannel, Open Water, NA				Coord. 2				
HYDROMODIFICATION:	None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert,			End Time	Coord. 3				
HYDROMODLOC(to sample):	US / DS / NA/ WI	Other _____	Geoshape: Line Poly Point		Coord. 4				
Location	*Depth (m):		Distance from Bank (m):				Latitude (dd.ddddd)	Longitude (-ddd.ddddd)	Depth (m)
COLLECTION METHOD:	E-boat, Backpack shocker, Fyke net, gill net, seine, hook & line			Start Time	Coord. 1				
SAMPLE LOCATION:	Bank, Thalweg, Midchannel, Open Water, NA				Coord. 2				
HYDROMODIFICATION:	None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert,			End Time	Coord. 3				
HYDROMODLOC(to sample):	US / DS / NA/ WI	Other _____	Geoshape: Line Poly Point		Coord. 4				

Failure Codes: Dry (no water), Instrument Failure, No Access, Non-sampleable, Pre-abandoned, Other

Comments:

Modified 06/08/07

SWAMP Tissue Sampling - Non-Trawl (Event Type = TI) **SWB_WildLk_2012**		Entered in d-base (initial/date)		Pg of Pgs
***StationCode:** __ __ __ __ __ __ __ __ __	*StationName:		*Purpose Failure Code:	**Agency**
***FundingCode:** 1 1 S W B G 0 1	*Date (mm/dd/yyyy): / /			

Tissue Collection

Location	*Depth (m):		Distance from Bank (m):			Accuracy (ft / m)	Latitude (dd.ddddd)	Longitude (-ddd.ddddd)	Depth (m)
COLLECTION METHOD:	E-boat, Backpack shocker, Fyke net, gill net, seine, hook & line			Start Time	Coord. 1				
SAMPLE LOCATION:	Bank, Thalweg, Midchannel, Open Water, NA				Coord. 2				
HYDROMODIFICATION:	None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert,			End Time	Coord. 3				
HYDROMODLOC(to sample):	US / DS / NA / WI	Other ________	Geoshape: Line Poly Point		Coord. 4				
Location	*Depth (m):		Distance from Bank (m):				Latitude (dd.ddddd)	Longitude (-ddd.ddddd)	Depth (m)
COLLECTION METHOD:	E-boat, Backpack shocker, Fyke net, gill net, seine, hook & line			Start Time	Coord. 1				
SAMPLE LOCATION:	Bank, Thalweg, Midchannel, Open Water, NA				Coord. 2				
HYDROMODIFICATION:	None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert,			End Time	Coord. 3				
HYDROMODLOC(to sample):	US / DS / NA / WI	Other ________	Geoshape: Line Poly Point		Coord. 4				
Location	*Depth (m):		Distance from Bank (m):				Latitude (dd.ddddd)	Longitude (-ddd.ddddd)	Depth (m)
COLLECTION METHOD:	E-boat, Backpack shocker, Fyke net, gill net, seine, hook & line			Start Time	Coord. 1				
SAMPLE LOCATION:	Bank, Thalweg, Midchannel, Open Water, NA				Coord. 2				
HYDROMODIFICATION:	None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert,			End Time	Coord. 3				
HYDROMODLOC(to sample):	US / DS / NA / WI	Other ________	Geoshape: Line Poly Point		Coord. 4				
Location	*Depth (m):		Distance from Bank (m):				Latitude (dd.ddddd)	Longitude (-ddd.ddddd)	Depth (m)
COLLECTION METHOD:	E-boat, Backpack shocker, Fyke net, gill net, seine, hook & line			Start Time	Coord. 1				
SAMPLE LOCATION:	Bank, Thalweg, Midchannel, Open Water, NA				Coord. 2				
HYDROMODIFICATION:	None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert,			End Time	Coord. 3				
HYDROMODLOC(to sample):	US / DS / NA / WI	Other ________	Geoshape: Line Poly Point		Coord. 4				
Location	*Depth (m):		Distance from Bank (m):				Latitude (dd.ddddd)	Longitude (-ddd.ddddd)	Depth (m)
COLLECTION METHOD:	E-boat, Backpack shocker, Fyke net, gill net, seine, hook & line			Start Time	Coord. 1				
SAMPLE LOCATION:	Bank, Thalweg, Midchannel, Open Water, NA				Coord. 2				
HYDROMODIFICATION:	None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert,			End Time	Coord. 3				
HYDROMODLOC(to sample):	US / DS / NA / WI	Other ________	Geoshape: Line Poly Point		Coord. 4				
Location	*Depth (m):		Distance from Bank (m):				Latitude (dd.ddddd)	Longitude (-ddd.ddddd)	Depth (m)
COLLECTION METHOD:	E-boat, Backpack shocker, Fyke net, gill net, seine, hook & line			Start Time	Coord. 1				
SAMPLE LOCATION:	Bank, Thalweg, Midchannel, Open Water, NA				Coord. 2				
HYDROMODIFICATION:	None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert,			End Time	Coord. 3				
HYDROMODLOC(to sample):	US / DS / NA / WI	Other ________	Geoshape: Line Poly Point		Coord. 4				

Failure Codes: Dry (no water), Instrument Failure, No Access, Non-sampleable, Pre-abandoned, Other

Comments:

Modified 06/08/07

SWAMP Tissue Sampling - Fish Abundance **SWB_WildLk_2012** | Entered in d-base (initial/date) | Pg: of Pgs

*StationCode: ___ ___ ___ ___ ___ ___ ___ ___ ___ | StationName: | Date (mm/dd/yyyy): / /

Location #	Organism ID	Tag #	Species Name/Code	FL (mm)	TL (mm)	StdL (mm)	Weight (g)	Count	Count Est.	Sex	Anomaly	Condition
										M F U L		
										M F U L		
										M F U L		
										M F U L		
										M F U L		
										M F U L		
										M F U L		
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										M F U L		
										M F U L		
										M F U L		

Location #: Match fish with Location # from Tissue Collection sheet | **Organism ID:** Combine composite # and fish # (e.g., fish 1 of composite WC01 is WC01-01) to be uni | **Tag #**: Use if applicable

Species Code: Largemouth Bass (**LMB**), Smallmouth Bass (**SMB**), Spotted Bass **(SPB),**Sacramento Pike Minnow **(SPM)**, Rainbow Trout **(RT),** Brown Trout **(BT),** Brook Trout **(BKT)**, White Catfish **(WC),** Carp **(CAR),** Channel Catfish **(CC)**, Brown Bullhead **(BRB)**, Sacramento Sucker **(SS)**, Redear **(RES)**, Black Crappie (**CRP**), Bluegill (**BG**), Tilapia **(TIL)**, Green Sunfish **(GRS)**, Kokanee **(KOK)**

Stage: Adult (A), Juvenile (J), Subadult (SA), Not Recorded (NR) | **Count Est**: If appropriate, add < or > if count is ε

Anomalies: Ambicoloration (A), Albinism (B), Cloudiness (CL), Deformity-skeletal (D), Discoloration (DC), Depression (DS), Fin Erosion (F), Gill Erosion (T), Hemorrhage (H), Lesion (L), Parasite (P), Popeye (PE), Tumor (T), Ulceration (U), White Spots (W), and any combination | **Sex**:unk(**U**),taken at Lab(**L**) | **BodyLocation**: Branchial Chamber(BRC), Buccal Cavity(BC), Eyes(E), Musculoskeleton(M), Skin/Fins(SF)

Comments: Mark fish requiring further ID; **SEPARATE FISH BY LOCATION AND INDICATE LOCATION # ON LABEL**

Modified 06/19/07

Fish Species	Species Code
American shad	AMS
black crappie	BCR
bluegill	BGL
black bullhead	BLB
blue catfish	BLC
brown trout	BNT
brown bullhead	BRB
brook trout	BRT
carp, common	CAR
channel catfish	CHC
chinook salmon	CHS
coho salmon	COH
California roach	CRH
delta smelt	DTS
flathead catfish	FHC
fathead minnows	FHM
goldfish	GLF
golden trout	GLT
green sunfish	GRS
hitch	HIT
hardhead	HRH
inland silverside	ISS
killifish	KIL
kokanee salmon	KOK
lamprey	LAM
longfin smelt	LFS
lake trout	LKT
largemouth bass	LMB
mosquitofish	MQF
pumpkinseed sunfish	PKS
rainbow trout	RBT
redeye bass	REB
redear sunfish	RES
red shiner	RSR

Fish Species	Species Code
Sacramento sucker	SAS
Sacramento blackfish	SBF
sculpin ssp	SCP
shiner perch	SHP
smallmouth bass	SMB
spotted bass	SPB
Sacramento perch	SPH
Sacramento pike minnow	SPM
Sacramento splittail	SST
striped bass	STB
steelhead	STH
striped mullet	STM
sturgeon, white	WST
threadfin shad	TFS
tilapia ssp	TIL
topsmelt	TPS
threespine stickleback	TSS
tui chub	TUC
tule perch	TUP
warmouth	WAR
white crappie	WCR
white catfish	WHC

2010 USGS SBSP Waterbird Hg Project

Egg Collection/Salvage Sheet

ID Code	Date (M/D/Y)	Pond	Nest Number	UTM Easting	UTM Northing	Species	Life Stage	Approx. age	condition when found	Collection Status	Notes

Egg Collection Status

NS	Dead	Rolled	Abandoned (Natural)
FTH	Cracked	Abandoned (Researcher)	Abandoned (foam)
FTH-drilled	Flooded	Abandoned (partial dep)	

Life Stage

Egg	Adult
Chick	
Juvenile	

Attachment 3: Analysis Authorization Forms

Analysis Authorization
Fiscal Year: 1112
Region:

Project ID: SWB_WildLk_2012
Season:
Date:

Contact Person: Autumn Bonnema
Phone: 831-771-4175
email: bonnema@mlml.calstate.edu
Mailing Address:

				Dissect and Analyze Tissue Flesh					
Station	StationName	OrganismName	CompositeIDText	Ind Hg	Comp Hg	%Moisture	Sex	Wt/Length	Archive
Total				0	0	0	0	0	0

Attachment 4: Laboratory Data Sheets

SWAMP Lab Data Sheet - FISH	ProjectID: SWB_WildLk_2012	PrepPres: Skin ON; Scales ON	LabID:	Pg: 1 of 2 Pgs
StationCode:	Tissue: Whole Body		Entered d-base (initial/date)	
StationName:	Homog. Method: USGS SOP Mortar/Pestle		Staff: Diss. Homog.	
Species Name:	Date Diss. (mm/dd/yyyy): / /		Date Homog. (mm/dd/yyyy): / /	

#	Tissue/Bag ID	Fish #	Organism ID	Composite / Individual ID	empty weigh boat	Part Wt w/ Boat (FreezerWet Wt)	Dry Weight w/ Boat	Sex	Part	Anomaly	Body Location
1								NR	Whole		
2								NR	Whole		
3								NR	Whole		
4								NR	Whole		
5								NR	Whole		
6								NR	Whole		
7								NR	Whole		
8								NR	Whole		
9								NR	Whole		
10								NR	Whole		

OrganismID: xxxxxxxxxLLXX##YYYzz-ZZ; unique code - StationCode (xxxxxxxxx), Location (LL), Project (XX), ProjectYear (##), OrganismCode (YYY), Bag # (zz), Fish # (ZZ); ex. 203SRF101L1SW04CAR01-01

TissueID: Differentiates different parts from same fish or differentiates composited vs. individual fish | **Part**: Tissue (T), Liver (L), Other (O) - list in Comments

Comp/IndID: Unique code; include Agency code in the ID; e.g., 2003-1823-MLML or C031501-MLML

Anomalies: Ambicoloration (A), Albinism (B), Cloudiness (CL), Deformity-skeletal (D), Discoloration (DC), Depression (DS), Fin Erosion (F), Gill Erosion (T), Hemorrhage (H), Lesion (L), Parasite (P),

Body Locations: Branchial Chamber (BRC), Buccal Cavity (BC), Eyes (E), Musculoskeleton (M), Skin/Fins (SF) | Popeye (PE), Tumor (T), Ulceration (U), White Spots (W), and any combination

Comments: Measure length to nearest 1 mm; Measure weight to nearest 0.01 g; Keep archive tissue if possible; If a duplicate is made, use DupID as identification for analysis

Modified 05/08/07

SWAMP Lab Data Sheet - FISH	ProjectID: SWB_WildLk_2012	PrepPres: Skin ON; Scales ON	LabID:	Pg: 1 of 2 Pgs
StationCode:	Tissue: Whole Body		Entered d-base (initial/date)	
StationName:	Homog. Method: USGS SOP Mortar/Pestle		Staff: Diss.	Homog.
Species Name:	Date Diss. (mm/dd/yyyy): / /		Date Homog. (mm/dd/yyyy): / /	

CHEMISTRY JARS

Individual ID:	**Individual ID**:	**Individual ID**:
Analysis: Mercury	**Analysis:** Mercury	**Analysis:** Mercury
Jar Weight Full (g):	Jar Weight Full (g):	Jar Weight Full (g):
Jar Weight Empty (g):	Jar Weight Empty (g):	Jar Weight Empty (g):
Comp Tissue Wt (Jar Full - Empty; g):	Comp Tissue Wt (Jar Full - Empty; g):	Comp Tissue Wt (Jar Full - Empty; g):
Individual ID:	**Individual ID**:	**Individual ID**:
Analysis: Mercury	**Analysis:** Mercury	**Analysis:** Mercury
Jar Weight Full (g):	Jar Weight Full (g):	Jar Weight Full (g):
Jar Weight Empty (g):	Jar Weight Empty (g):	Jar Weight Empty (g):
Comp Tissue Wt (Jar Full - Empty; g):	Comp Tissue Wt (Jar Full - Empty; g):	Comp Tissue Wt (Jar Full - Empty; g):
Individual ID:	**Individual ID**:	**Individual ID**:
Analysis: Mercury	**Analysis:** Mercury	**Analysis:** Mercury
Jar Weight Full (g):	Jar Weight Full (g):	Jar Weight Full (g):
Jar Weight Empty (g):	Jar Weight Empty (g):	Jar Weight Empty (g):
Comp Tissue Wt (Jar Full - Empty; g):	Comp Tissue Wt (Jar Full - Empty; g):	Comp Tissue Wt (Jar Full - Empty; g):
Individual ID:		
Analysis: Mercury		
Jar Weight Full (g):		
Jar Weight Empty (g):		
Comp Tissue Wt (Jar Full - Empty; g):		

Comments:

Modified 06/08/07