

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCVYes ☒ No ☐

WIN Station Name:	Tributary South of Perdido Landfill				Sample Date:	9/13/2022	
WIN / Field ID:	G5NW0050	ORG ID:	21FLPNS	ENR:		Latitude:	30.56609
County:	Escambia	WBID:	542	STREAM	3F	Longitude:	-87.39652
Receiving Body of Water:	Perdido River				RQ-	2022-09-12-34	

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
C. Stopher Slade	x		x		
Nathan Mulkey		x		x	x

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
	Syringe		Pole
	Syringe Lot#	1746049 5	Filter Lot# 1005533
	Secchi Equipment ID:	Secchi -1	
Collection Method			
x	Wading		Canoe/Kayak
	From Shore		Electric Motor
			Gasoline Motor
	Depth Measured With	Meter	

Water Level:	Normal
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	155077 (ProDSS)

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
CEN	930	0.1	0.05	4.76	56	23.4	6.68	0.1	182.3	0.09
								VOB (s)		

Biological Samples Collected:

HA LVS RPS SCI

SBIO Visit ID: 85482**HA ID: 17938****RPS ID: 9970****Macrophyte ID: N/A****LIMS Sample ID Entered****Into The Macrophyte Module: 2356416****BENTH ID: 45508**

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
				Type	Lot#	Expiration Date	pH Check
Microbiology	E. coli			ICE			
	Contract Lab	UWF					
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate Nutrients	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE			
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	2145160	6/2/23
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	1286110	11/16/22
Organics (LC)	W-E8321-DI	W-E8321-MS		Ice			
Macroinvertebrates	MI-FW-QLDC			Formalin	-		
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R		Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular							
Periphyton							
Phytoplankton							
BOD							
Other(s)							
Field Comments:	/ SCI Collection Time: 1030						
Comments on COC:	Microbiology sample(s) submitted to contract laboratory.						
Relinquish Date:	09/13/2022		Signature:				

LIMS EVENT ID: _____ WIN Import ID: _____

Enter Field Parameters, Verify Station ID In LIMS DMT: _____

(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: _____

(Initials/Date)

Save Field Sheets on Network: _____

(Initials/Date)

Migrate Data to WIN: _____

(Initials/Date)

Site Name: Tributary South of Perdido Landfill

Date: 9/13/22

Storet GSNW0050

Field ID GSNW0050

Project: SMP/TMDL Studies

Visit ID B5482

RQ: 2022-09-12-34

RPS ID 9970

LIMS ID: 2356416

Macro ID N/A

WBID: 542

HA ID 17938

Benth ID 45508

☒ SCI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO

Initial FB, 9/20/22 ☒ Date and Initial QA: SS, 09/26/2022

☒ RPS entered in SBIO

Initial FB, 9/20/22 ☒ Date and Initial QA: SS, 09/26/2022

☐ LVS entered in SBIO

Initial _____ ☐ Date and Initial QA: _____

☒ < 2 m² vegetation

☐ Plants getting verified

Date submitted: _____

☐ Plants verified

Date returned: _____

☒ RPS authorized in SBIO

☒ Date and Initial: 09/26/2022, FB

☒ RPS score: 0.0

☐ Macro authorized in SBIO

☐ Date and Initial: _____

☐ LVS Score: _____

☒ SCI complete: M. Heyn, 12/05/2022

SCI Score: 15

☒ Add SBIO-ID, HA-ID, RPS-ID, MACROPHYTE-ID and LIMS# to field sheet in database

☐ E. coli samples shipped to Tallahassee Lab for analysis.

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID 85482 ORG ID 2122PWS LATITUDE 30.56610
 COUNTY Escombia STORET # 65W0050 LONGITUDE 87.39622
 DATE 9/13/22 TIME 0930 SAMPLING AGENCY FDLP AMROC
 SITE NAME Tripartite South of Perdido Landfill
 FIELD ID/NAME 65W0050 RECEIVING BODY OF WATER Perdido River

RIPARIAN ZONE / STREAM FEATURES

WBID 542

LIMS 2356416

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):

Forest/Natural ☒ Silviculture ☒ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) Land Fill

Landscape Development Intensity Index (LDI)

N/A

Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side

Left Bank: 718 Right Bank: 718

Hydrologic Modification Score (per FT 3101) 1-2

High Water Mark: 0.5 + 0.2 = 0.7
 (m) (above present water level) (present depth) (above bed)

Artificially Impounded

☐ Yes ☒ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

1.0 m wide

1/6 m/s 1/6 m/s 1/6 m/s
0.17 0.17 0.17

0.2 m deep 0.2 m deep 0.2 m deep

Artificially ☒ No ☐ Mostly recovered, more sinuous

Channelized: ☐ Some recovery ☐ Recent, severe

Canopy Cover %

☐ Open ☐ Lightly Shaded (11-45%)
☒ Heavily Shaded ☐ Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils

☐ Absent ☐ Slight
☒ Moderate ☐ Profuse

Sediment Odors

☒ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic
☐ Other (Specify):

Smothering of Substrates

Sand Smothering: None ☐ Slight ☐ Moderate ☒ Severe ☐
 Silt Smothering: None ☐ Slight ☐ Moderate ☐ Severe ☒
 Algae Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐

SUBSTRATE TYPE

Assessment Tool: ☒ SCI ☒ RPS ☒ LVS

☐ LCI ☐ BioRecon

% Coverage INVERT # Times Sampled PERI # Times Sampled

Woody Debris (Snags) 5.1 5

Undercut Banks / Roots 2.2 5

Leaf Packs or Mat 4.5 5

Aquatic Vegetation 88.2 5

Rock or Shell Rubble.. 88.2 5

Sand..... 88.2 5

Mud / Muck / Silt 88.2 5

Other 88.2 5

Other 88.2 5

WATER QUALITY

Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)

Top: 0.1 23.4 6.68 4.76 56 182.3 0.09 0.2

Mid: 0.1 23.4 6.68 4.76 56 182.3 0.09 0.2

Bottom: 0.1 23.4 6.68 4.76 56 182.3 0.09 0.2

Meter ID: 155077 TOTAL DEPTH 0.2

Water Odors Normal ☒ Petroleum ☐
 Sewage ☐ Chemical ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No

Sample Preserved? ☒ Yes ☐ No

Lot Number: _____ Exp: _____

Algae Sample Taken? ☐ Yes ☒ No

Sample Preserved? ☐ Yes ☐ No

Lot Number: _____ Exp: _____

Water Surface Oils Normal ☐ Sheen ☒
 Globbs ☒ Slick ☐ Other ☐

Color Tannic ☐ Green (Algae) ☐

Clear ☒ Other (Specify) ☐

Clarity Clear ☐ Slightly Turbid ☐

Turbid ☒ Opaque ☐

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:

☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

Nathan Mally / Stephen Stude

SIGNATURE:

Nathan Mally

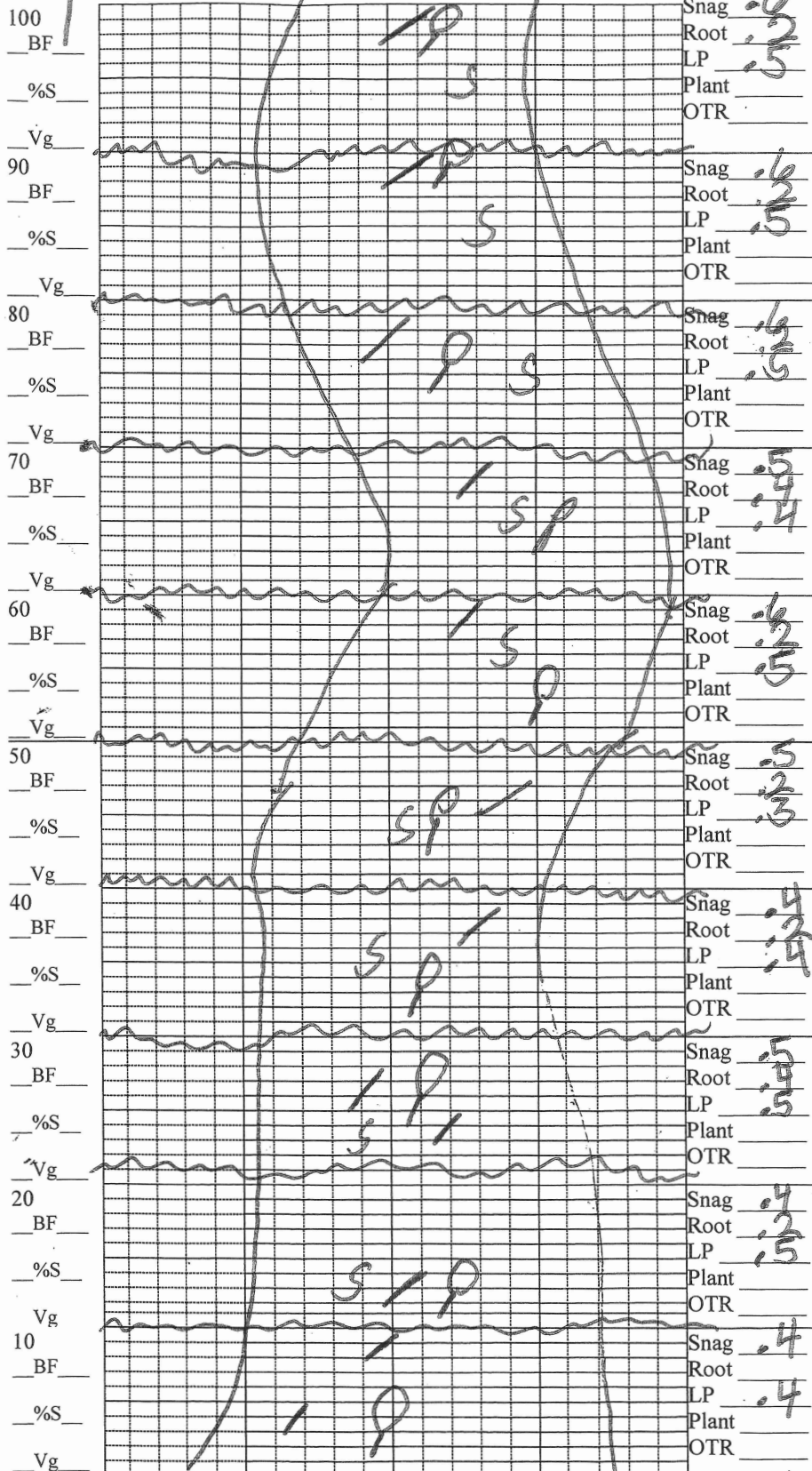
DATE:

9/13/22

Braided
sinuous

Stream/River Habitat Sketch Sheet, Form FD 9000-4 (June 1, 2001)

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Left Bank

SB10 ID 85482

Downstream

1/25
880 north
spring

WIN ID G5NW0050

Substrates: Code key,
draw proportionate habitat
abundance.



Snags $\frac{5.1}{100} \%$



Roots/undercut banks $\frac{2.2}{100} \%$



Leaf Packs (or mats) $\frac{4.5}{100} \%$



Macrophytes



Velocity:

Note where velocity
measures were taken. 60 m

Habitat Smothering:

Note areas (on map) where
sand or silt is something
substrates, limiting
habitability.

Bank Stability:

Note areas (on map) with
unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where
natural vegetation is altered
or eliminated.

Average width 1.0 m

Average depth 2 m

WQ & chemistry taken @ 0 m

Station Name: Tributary South
of Perdido Landfill

Project: TMDL Studies

Sampled By/Date: 09/13/2022

0 m Latt. 30.56610

0 m Long. 87.39422

100 m Latt. 30.56625

100 m Long. 87.39547

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: <u>FDEP NWROC</u>		STORET STATION NUMBER: <u>65NW0050</u>	DATE (MM/DD/YY): <u>09/13/2022</u>	RECEIVING BODY OF WATER: <u>Perdido River</u>
REMARKS: WBID <u>542</u>	COUNTY: <u>Escambia</u>	LOCATION: <u>Tributary South of Perdido Lake #11</u>	FIELD ID/NAME: <u>65NW0050</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock).	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>11</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>8</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>12</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering <u>6</u> Primary Score <u>37</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>19</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the root zone with few raw, eroded areas.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.
Right Bank <u>10</u> Left Bank <u>10</u>	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>10</u> Left Bank <u>10</u>	10 9	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>8</u> Left Bank <u>8</u> Secondary Score <u>25</u>	10 9	8 7 6	5 4	3 2 1

112 TOTAL SCORE

Date: <u>9/13/22</u>	Analyst: <u>Nathan Mulvey</u>	Signature: <u>Nathan Mulvey</u>
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SBIO ID: 85482
62-160.800, F.A.C.

HA ID: 17938

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Tributary South of Padilla Land Escarpment</u>					County: <u>Eschschia</u>					Date: <u>9/13/22</u>					Investigators: <u>Nathan Mulka</u>																																																	
Transect (m)					Point					Algal Thickness Rank (N-6, X)					Estimated					Canopy Cover					STORET Station Number: <u>GSNW0050</u>																																							
1=right 9=left					1=right 9=left					1=right 9=left					1=right 9=left					1=right 9=left					1=right 9=left																																							
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					8																									8																				85														
					9																									9																				85														
50					1					N																				Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.																																		
					2																									Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.																																		
					3																									Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.																																		
					4																									Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.																																		
					5																																																											
					6																																																											
					7																																																											
					8																																																											
					9																																																											

Secchi depth 0.2 / VOB
Estimated? No

points ranked 4-6 4
total points assessed 99
% points ranked 4-6 4%

Check accompanying data collected at same site/date.
Algal mat sample X
Linear Veg Survey X
Habitat Assessment X
SCI/Biorecon X
Water sample X
RQ- 2022-09-12-34

Algal Thickness Rank	
N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

SB10 ID 85482
RPS ID 9970

RPS Score: 0.0

Waterbody: <u>Trinity South of Red Lake Lough</u>	Date: <u>9/13/20</u>	County: <u>Essex</u>	Storet Number: <u>68M0050</u>
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Comments: γ $2m^2$ SAV

	Meter Mark								Specimen collected (check)		Meter Mark								Specimen collected (check)	
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80			80-90	90-100	0-10	10-20	20-30	30-40	40-50	50-60		60-70
HERBACEOUS SPECIES											HERBACEOUS SPECIES									

Revision Date: January 2017

Station Name Tributary South of Perdido Landfill
 Win ID: G5NW050
 SBIO ID: 85482 LIMS ID: 2356416
 Benth ID: 45508
 Sample Date 9/13/2022

Variable Name	Rep 1	Rep 2
AmphipodPct	0	0
ChironPct	11.64	15.03
ChironTaxa	8	5
ClingerTaxa	3	3
ColeopteraPct	48.63	60.78
DecapodaPct	0	0
DipteraPct	11.64	15.69
DominantPct	48.63	60.78
Dominant Taxon	Stenelmis	Stenelmis
EPTTaxa	2	2
EphemPct	0.68	1.96
EphemTaxa	1	1
FFBrowGrazPct	0	0
FFEpiColDepPct	30.82	37.58
FFParasitePct	0	0
FFPIPIercePct	0	0
FFPredCarnPct	8.9	4.58
FFScavPct	1.37	1.63
FFScrapePct	26.03	31.37
FFShredPct	3.42	2.29
FFSubColDepPct	12.33	8.5
FFSuspFiltPct	17.12	13.4
FFUnknownPct	0	0.65
GastropodaPct	2.05	0
IsopodaPct	2.74	3.27
LongLivedTaxa	0	0
OdonataPct	4.11	3.27
OligocPct	12.33	8.5
OligocTaxa	5	3
PelecypodaPct	8.22	2.61
PlecoPct	0	0
PolychaetePct	0	0
PolychaeteTaxa	0	0
SCI_2012_Rep	14.77895628	16.17551
SensitiveTaxa	2	1
TanytarsiniPct	2.74	9.15
TotalDBar	0	0
TotalDensity	0	0
TotalNind	146	153
TotalTaxa	25	18
TrichopPct	6.85	2.61
TrichopTaxa	1	1
TrombidPct	0	0
VeryTolerantPct	14.38	9.8

AVG SCI SCORE	15
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