



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE 1 OF 1

Data Qualified?
Yes / No

STORET Station Name: 11/30/2016 WBID 2033 G3SD113016-3 Date: (mm/dd/yyyy)
STORET Station ID: Bobcat Creek in Preserve West PEACRV0013FTM Altitude: (Decimal Degrees)
County: Charlotte RQ - Longitude: (Decimal Degrees)
Receiving Body of Water: Peace River Field ID:

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Ben Paswater									
Rosemary Murphy									

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Equipment ID		
Collection Method		
☐ Wading	☐ Via Boat	
☒ From Shore	☐ Canoe/Kayak	
☐ Other (note below)	☐ Electric Motor	
	☐ Gasoline Motor	

Water Level:		Dry / Low / Normal / High / Flooded						Matrix:		Fresh / Marine / DI	
Meter ID#		Photos:						Yes / No		Tide Falling: Yes / No / NA	
Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)	
EST	1045	0.3	0.3	6.81	70.0	7.0	0.2	0.3	392	20.6	
CEN	Monte 1049	0.3	0.3	5.24	59.7	6.7	0.2	10B	424	20.9	

Biological Samples Collected:		None		HA	SCI	LVS	RPS	LVI	Other	
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check					
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4			☒ <2					
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <2					
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice								
Chlorophyll	☒ CHLSUITE-W	☒ Ice								
Physical/Aggregate (Fresh)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice								
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice								
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin								
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococcus ☐ QPCR	☐ Ice								
Periphyton	☐ ALGAE-ID	☐ Ice								
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other								

Notes:	
Blank - 1056	
Place Label Here (If Available)	
Signature: [Signature]	Date: 11/30/16

Field Parameters Entered into LIMS:		Field Parameters QC in LIMS:	
(Initials/Date)	(Initials/Date)	(Initials/Date)	(Initials/Date)
Date Migrated to STORET: (Initials/Date)		Field Sheets Scanned/Saved: [Checkmark] (Initials/Date)	

RQ-2016-11-28-17

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

11/30/2016

WBID 2033

Bobcat Creek in
Preserve West

G3SD113016-3

Field ID

STORET

PEACRV0013FTM

STORET STATION
NUMBER:DATE
(MM/DD/YY):

SAMPLING AGENCY:

FIELD ID/NAME:

COUNTY:

LOCATION:

FDEP South ROC

RECEIVING BODY OF WATER:

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>10</u>	20 19 18 17 16	15 14 13 12 11	<u>10</u> 9 8 7 6	5 4 3 2 1
Substrate Availability <u>9</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 <u>9</u> 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 <u>12</u> 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>13</u> ----- Primary Score <u>44</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 <u>13</u> 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. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 <u>13</u> 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Artificial Channelization <u>13</u>				
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. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 <u>6</u>	Only meets 1 of the 3 requirements for optimal bank stability. <u>5</u> 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m <u>RL</u> <u>10</u> 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 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. <u>10</u> 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

TOTAL SCORE

Date:

Analyst:

Signature:

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

County: CharlotteInvestigators: BP, RMSTORET Station Number: 96

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover		
0	1	N		86	60	1	N		80		
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
10	1			88	70	1			92		
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
20	1			79	80	1			94		
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
30	1			88	90	1			89		
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
40	1			92	100	1			70		
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										
50	1			35	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	0.3
Estimated?	

# points ranked 4-6	0
total points assessed	96
% points ranked 4-6	0

Check accompanying data collected at same site/date.

Algal mat sample	
Linear Veg Survey	X
Habitat Assessment	X
SCI/Biorecon	X
Water sample	X

RQ-

Algal Thickness Rank

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

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

RQ-2016-11-28-17

11/30/2016
WBID 2033

G3SD113016-3
Field ID

Waterbody: Bobcat Creek Date: County: Charlotte

Analyst: Paswater Signature: Ben Pomeroy

Bobcat Creek in
Preserve East

STORET
PEACRV00012FTM

Comments: Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)	HERBACEOUS SPECIES	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	70-80	80-90	90-100	
Alternanthera philoxeroides												Micranthemum glomeratum											
Bacopa caroliniana												Micranthemum umbrosum											
Bacopa monnieri												Myriophyllum aquaticum											
Bidens mitis												Najas guadelupensis											
Boehmeria cylindrica												Nuphar luteum											
Centella asiatica												Orontium aquaticum											
Ceratophyllum demersum												Panicum hemitomon											
Chara												Panicum repens											
Cicuta maculata												Panicum rigidulum											
Cladium jamaicense												Pistia stratioides											
Colocasia esculenta												Polygonum glabra											
Commelina diffusa												Polygonum hydropiperoides											
Commelina virginica												Polygonum punctatum											
Crinum americanum												Pontedaria cordata											
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Sacciolepis striata											
Hydrilla verticillata												Sagittaria kurziana											
Hydrocotyle sp.												Sagittaria lancifolia											
Hygrophila polysperma												Sagittaria latifolia											
Hymenachne amplexicaulis												Salvinia minima											
Hymenocallis												Samolus parviflora											
Lachnanthes caroliniana												Saururus cernuus											
Landoltia punctata												Sparganium americanum											
Lemna												Sphagneticola trilobata (Wedelia)											
Limnophila sessiflora												Typha											
Ludwigia leptocarpa												Urochloa mutica (Brachiaria)											
Ludwigia palustris												Vallisneria americana											
Ludwigia peruviana												Zizania aquatica											
Ludwigia repens																							
Luziola fluitans																							
<u>Eleocharis Baldernia</u>																							
<u>Sagittaria subulata</u>																							
If no Dominant or Co-Dominant were selected, indicate with "X"																							
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓													
>5 and ≤10% Macrophyte Coverage																							
>10 and ≤25% Macrophyte Coverage																							
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							

> 2 sam 6 species

RQ-2016-11-28-17

11/30/2016

WBID 2033

Bobcat Creek in
Preserve West

G3SD113016-3

Field ID

STORET
PEACRV0013FTM

21FLFTM

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

LATITUDE

LONGITUDE

SAMPLING AGENCY FDEP South ROCSITE NAME see stickerRECEIVING BODY OF WATER Pence River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>60</u> Silviculture <u>20</u> Field/Pasture <u>20</u> Agricultural <u>20</u> Residential <u>20</u> Commercial <u>20</u> Industry <u>20</u> Other (Specify) <u>20</u>								Landscape Development Intensity Index (LDI) <u>20</u>
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy				Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>13</u> m wide <u>13</u> m/s <u>13</u> m/s <u>13</u> m/s <u>0.3</u> m deep <u>0.3</u> m deep <u>0.3</u> m deep				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>16</u> Right Bank: <u>16</u>				Hydrologic Modification Score (per FT 3101) <u>1.4</u>				
High Water Mark: <u>1</u> + <u>1.3</u> = <u>1.4</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				
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		WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.3</u> <u>20.6</u> <u>7.0</u> <u>6.8</u> <u>70</u> <u>342</u> <u>0.3</u> Mid: <u>0.3</u> <u>20.6</u> <u>7.0</u> <u>6.8</u> <u>70</u> <u>342</u> <u>0.3</u> Bottom: <u>0.3</u> <u>20.6</u> <u>7.0</u> <u>6.8</u> <u>70</u> <u>342</u> <u>0.3</u> Meter ID: <u>5</u>			
Woody Debris (Snags) <u>7</u> Undercut Banks / Roots <u>7</u> Leaf Packs or Mat Aquatic Vegetation Rock or Shell Rubble..... Sand..... Mud / Muck / Silt Other Other		Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐		Water Surface Oils Normal ☒ Sheen ☒ Globbs ☐ Slick ☐ Other ☐	
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐		Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____ Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____		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 <u>Paswater</u> <u>Murphy</u>		SIGNATURE: <u>Ben P...</u>		DATE: <u>11/30/16</u>	

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

RQ-2016-11-28-17

11/30/2016
WBID 2033

G3SD113016-3

Bobcat Creek in
Preserve West

STORET
PEACRV0013FTM

Date: 11/30/16

Sampler: Ben Paswater, Rosemary Nye

100 m: Latitude N 27.05969
Longitude W -82.00746

0 m: Latitude N 27.05131
Longitude W 82.01803

Substrates: Code key, draw proportionate habitat abundance. %

	Snags	4.3
	Roots/undercut banks	7.2
	Leaf Packs (or mats)	.8
	Aquatic Macrophytes	1.0
	ROCKS	10.5
	Pools	total # observed = 6 # range expected = 6

Average width 1 m

Average depth .5 m

Velocity measured at 100 meter mark.

WQ & chemistry taken at 100 meter mark.

Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

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

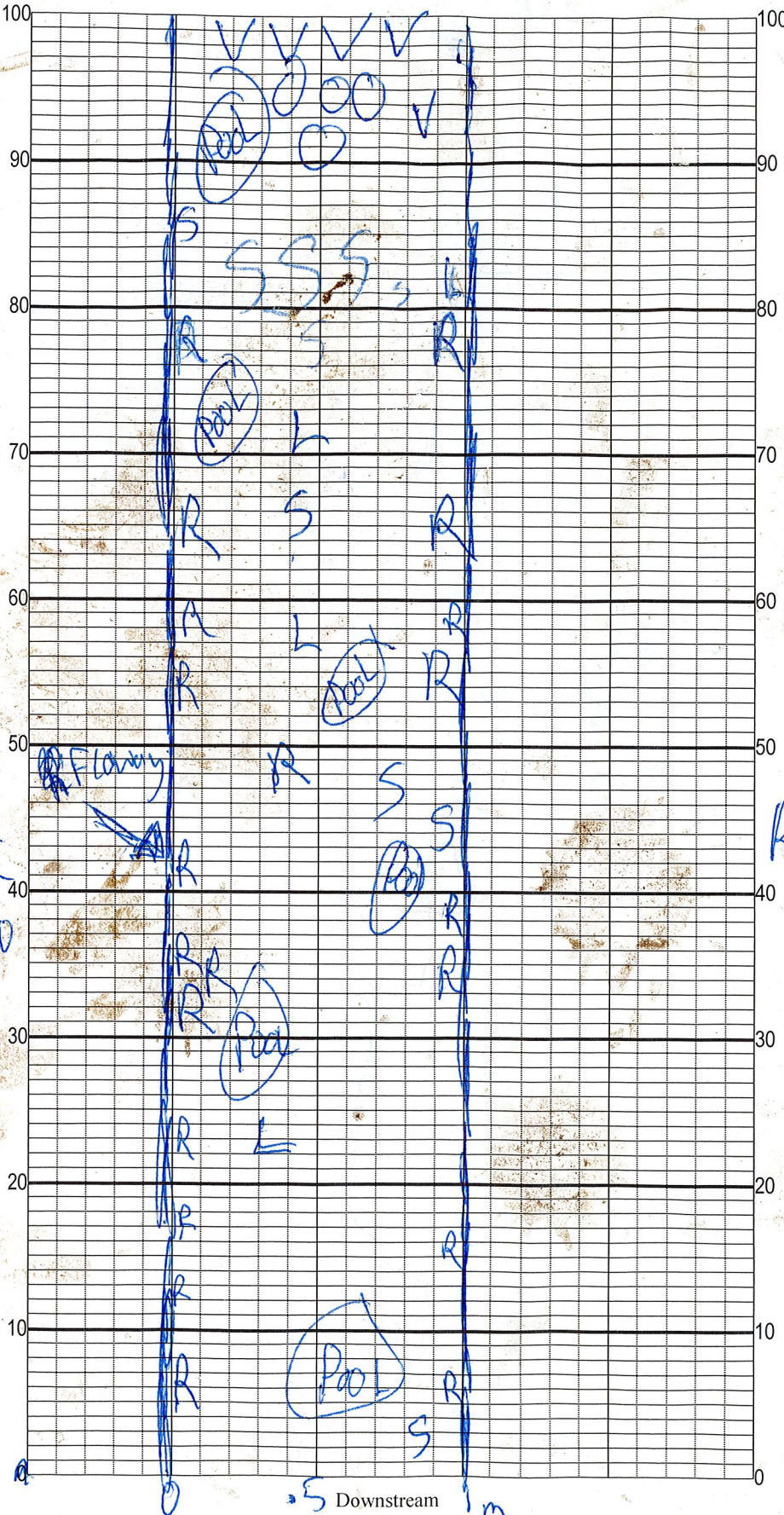
Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed / other notes:

S = 43
R = 72
L = 8
V = 10
O = 15

Left
Bank

L
Bank
700



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