



# **S. BRANCH BLACKCLICK CREEK**

**Restoration & Fish Habitat Projects**

in

**Vintondale Borough & Nanty Glo Borough**

**Flood Protection Projects**

Designs by

**PA Fish & Boat Commission-Stream Habitat Division**

Surveys by

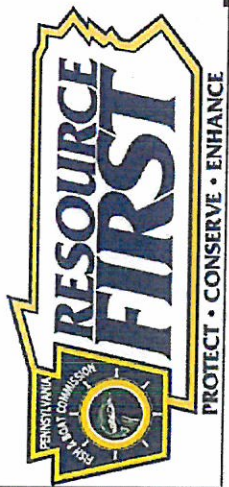
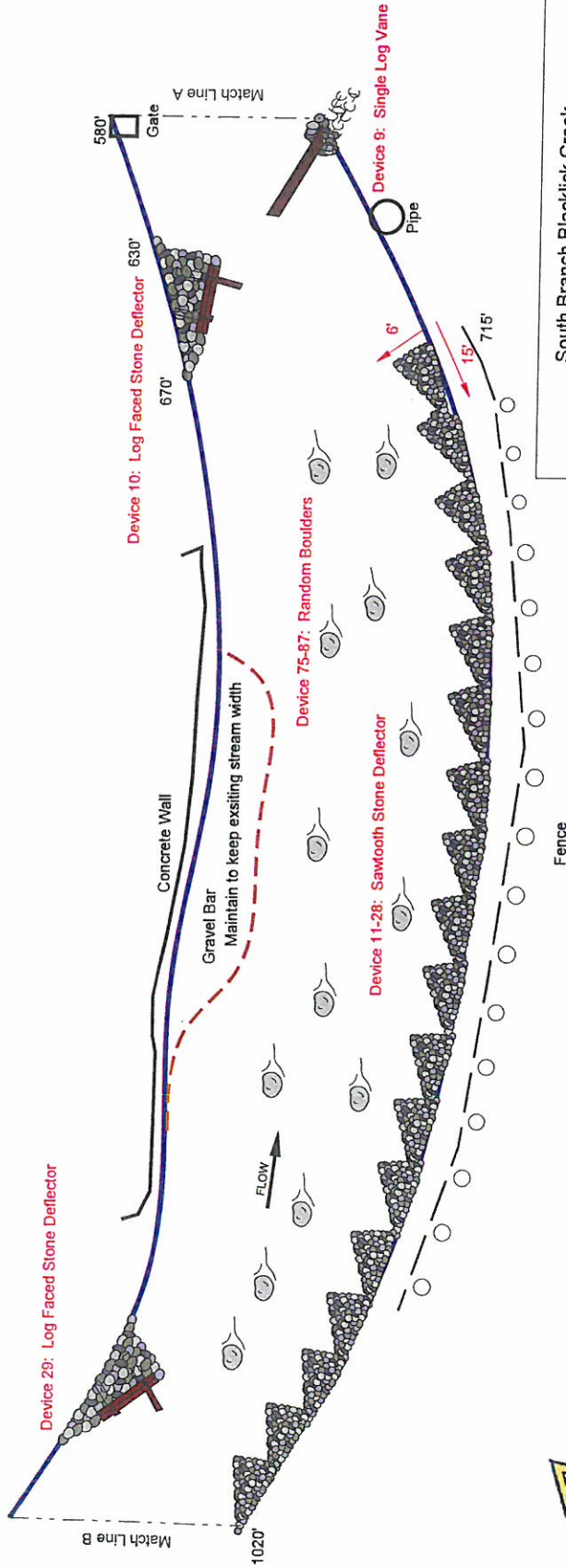
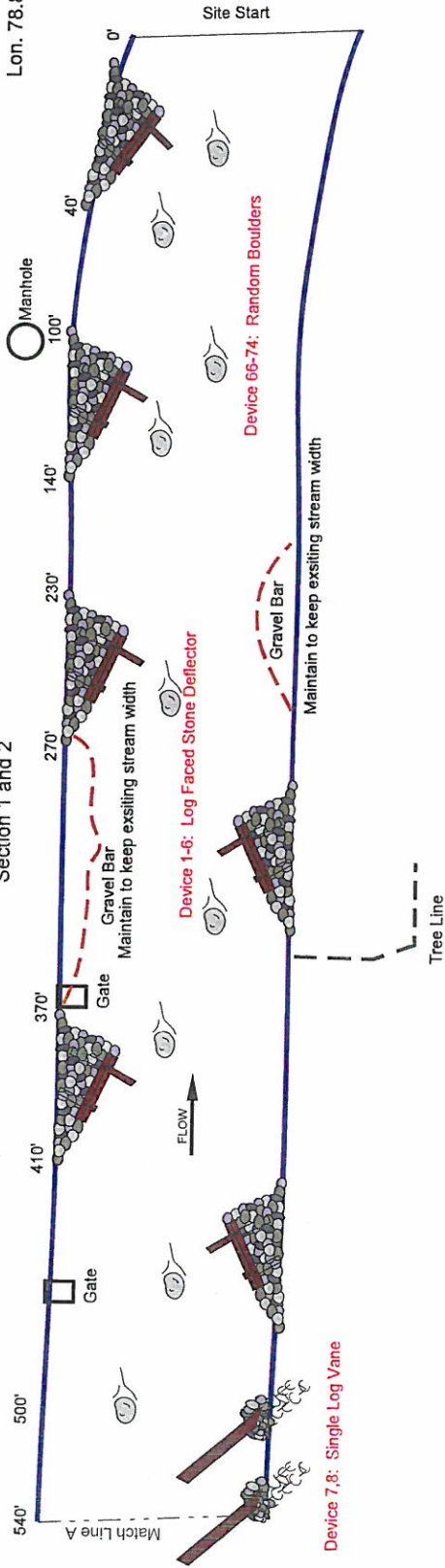
**PA Association of Conservation Districts**

**Technical Assistance Team**

# Nanty Glo Borough

Lat. 40.47306  
Lon. 78.83957

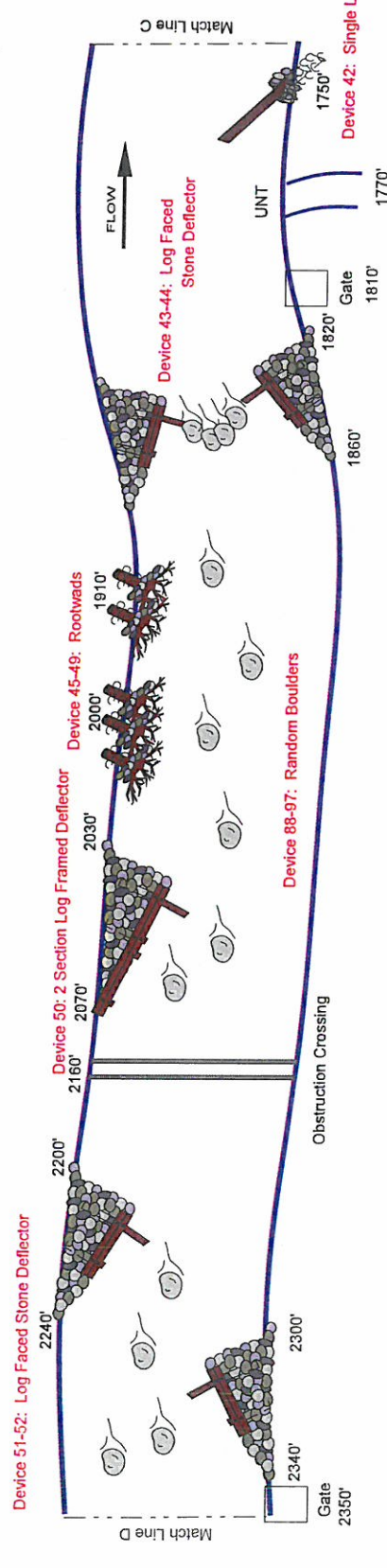
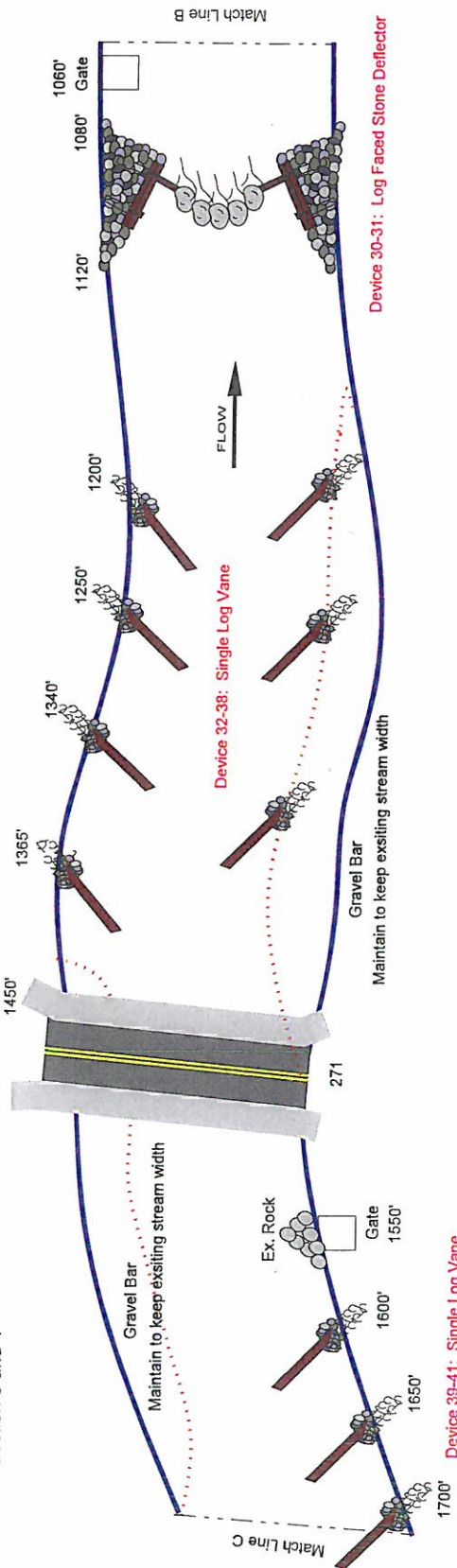
Section 1 and 2



Linear:	1,825'
Square:	9,885'

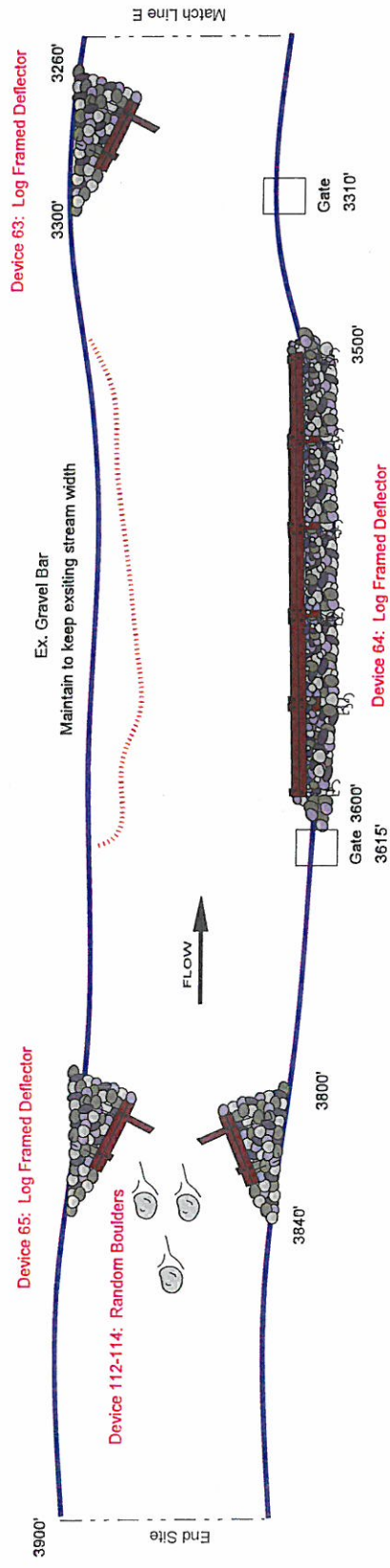
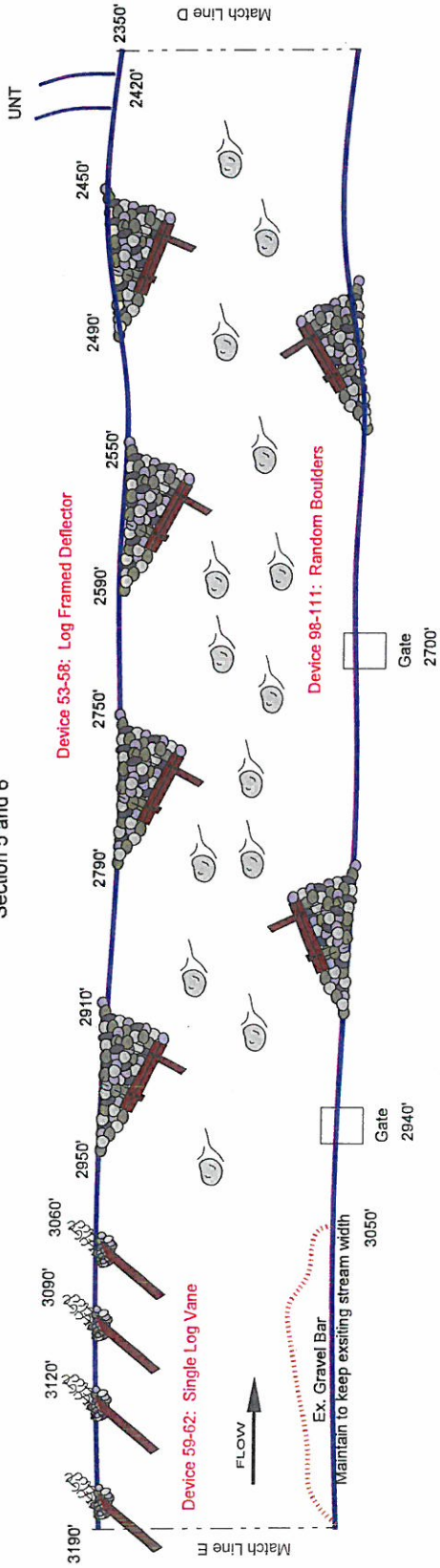
South Branch Blacklick Creek	
Cambria County	
Nanty Glo	
Fish Habitat Improvement Plan	
Stream Section, Habitat Management Division	
Pennsylvania Fish & Boat Commission	
Drawn By:	Mark Sausser
Habit Manager:	Mark Sausser
Date:	11/18/2013
All Measurements Approximate	
Fit in Field	

Section 3 and 4





Section 5 and 6



PROTECT • CONSERVE • ENHANCE

## Project Materials List

### South Branch Blacklick Creek, Cambria County

**Device: Log Faced Stone Deflector 40'**

**Device #: 1-6, 10, 29, 30, 31, 43, 44, 51, 52, 53-58, 63, 65**

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**Per Device**

**Total Devices: 23**

Logs: 25'x 8-10" Dia. = 1

23

20'x 8-10" Dia. = 2

46

10'x 8-10" Dia. = 1

23

Rebar Pins (5/8"): 4'- 6 and 2'- 2

4'- 138    2'- 46

Stone (12-24" Dia.): 30 Tons

690

Other: Seed & Mulch

**Device: Log Faced Stone Deflector 60'**

**Device #: 50**

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**One Device**

Logs: 25'x 8-10" Dia. = 1

20'x 8-10" Dia. = 4

10'x 8-10" Dia. = 3

Rebar Pins (5/8"): 4'- 10 and 2'- 8

Stone (12-24" Dia.): 40 Tons

Other: Seed & Mulch

**Device: Modified Mud Sill**

**Device #: 64**

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**One Device**

Logs: 20'x 8-10" Dia. = 10

10'x 8-10" Dia. = 10

Rebar Pins (5/8"): 4'- 20 and 2'- 20

Stone (12-16" Dia.): 40 Tons

Other: Seed & Mulch

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**Device: Single Log Vane Deflector**

**Device #: 7-9, 32-42, 59-62**

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**Per Device**

**Total Devices: 18**

Logs: 25' x 8-10" Dia. = 1

18

Rebar Pins (5/8"): 4' - 6

4' - 108

Stone (12-24" Dia.): 5 Tons

90

Other: Seed & Mulch & Geo Fabric (20'x4')

360'

**Device: Rootwad Deflector**

**Device #: 45-49**

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**Per Device**

**Total Devices: 5**

Rootwads: 4-5' Dia. rootball attached to 10' stem

5

Rebar Pins (5/8"): 4' - 2

4' - 10

Stone (12-24" Dia.): 3 Tons

15

Other: Seed & Mulch

**Device: Sawtooth Stone Deflector**

**Device #: 11-28**

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**Per Device**

**Total Devices: 18**

Stone (18-30" Dia.): 8 Tons

144

Other: Seed & Mulch

**Device: Random Boulders**

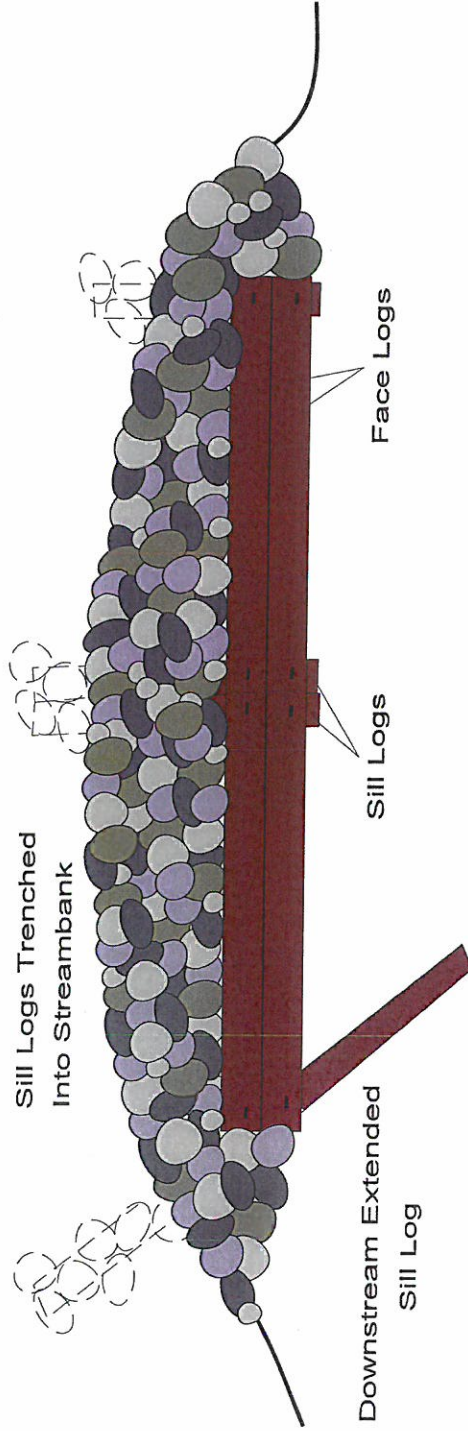
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Stone (32-48" Dia.): 50

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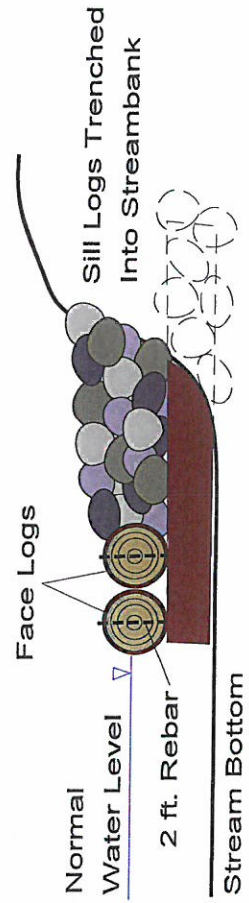
# MODIFIED MUD SILL CRIBBING

Plan View



NOTE: Sill Logs Should Be Placed Every 15 ft.

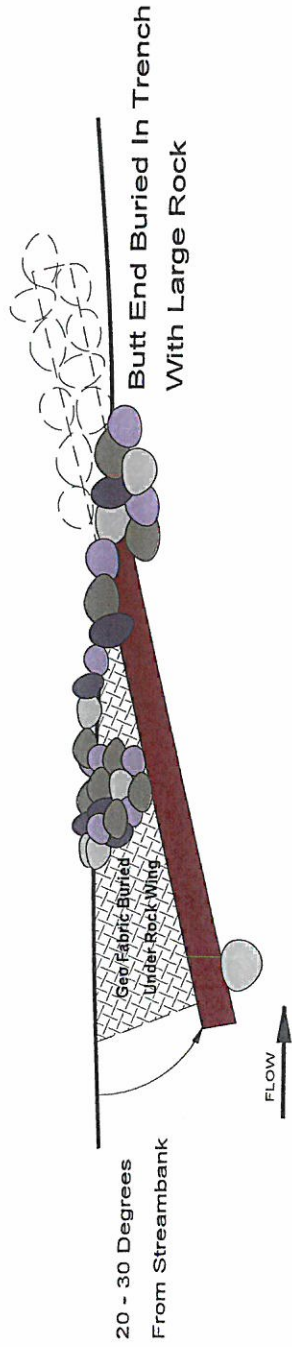
Section View





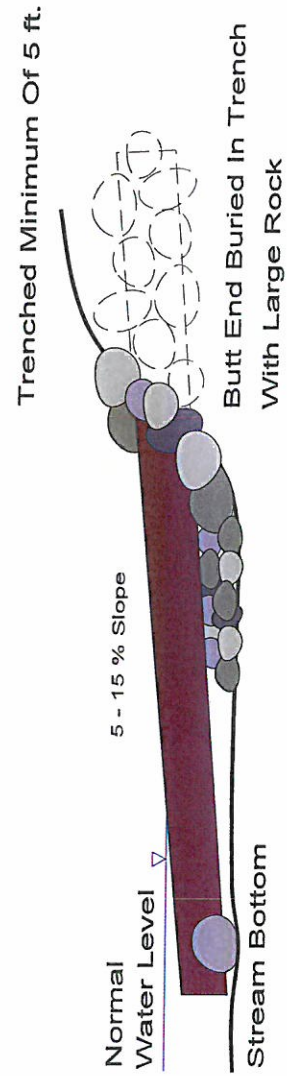
# SINGLE LOG VANE DEFLECTOR

Plan View



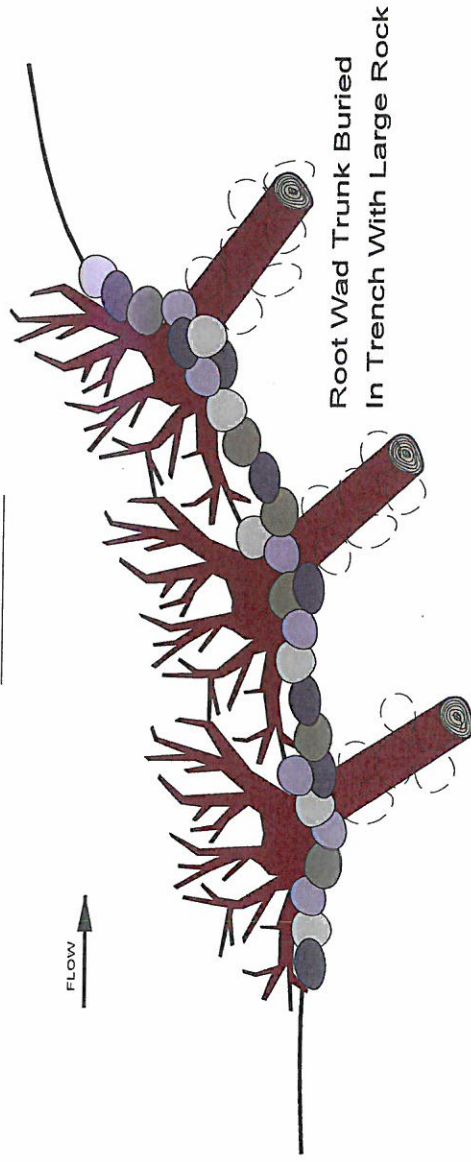
4' Rebar Pin

Section View



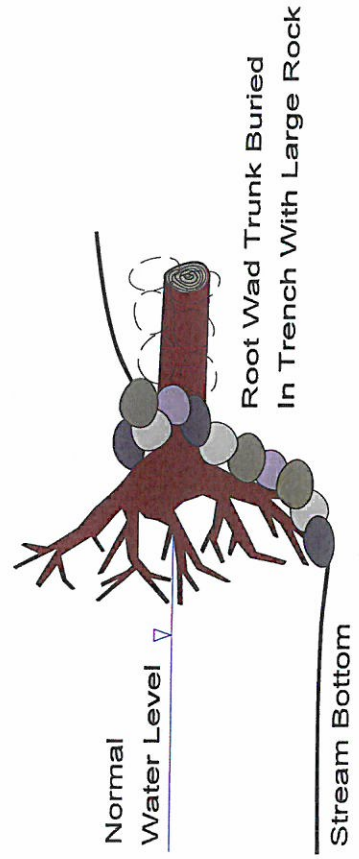
# ROOT WAD DEFLECTOR

Plan View



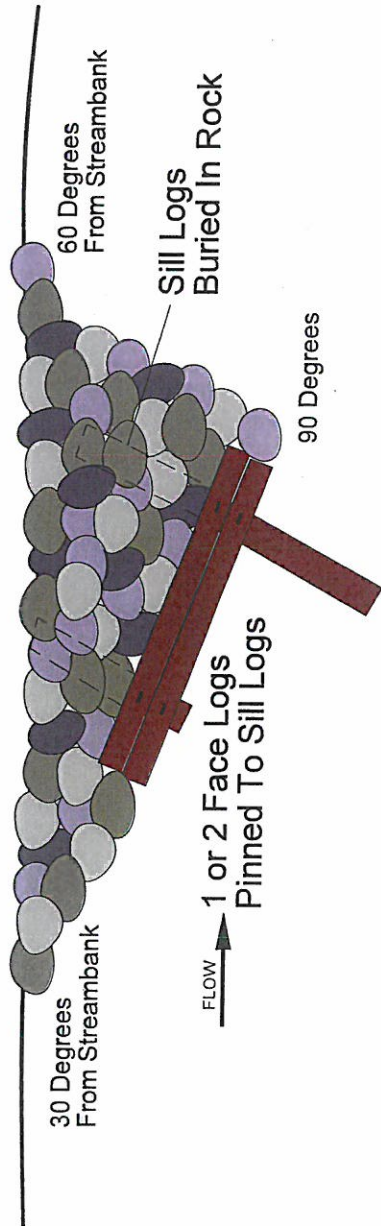
NOTE: Can be placed as a single deflector, or overlapping as shown.

Section View

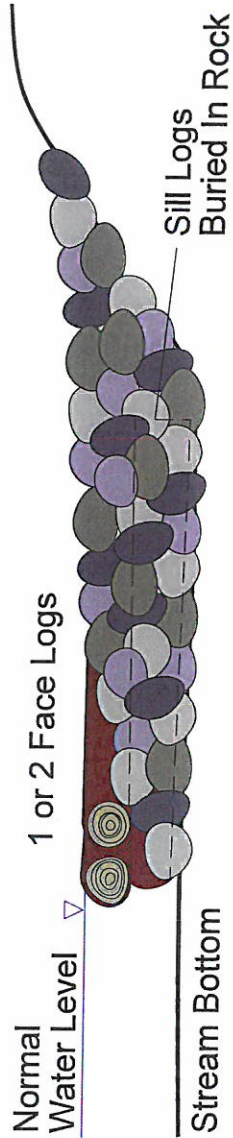


# LOG FACED STONE DEFLECTOR

Plan View

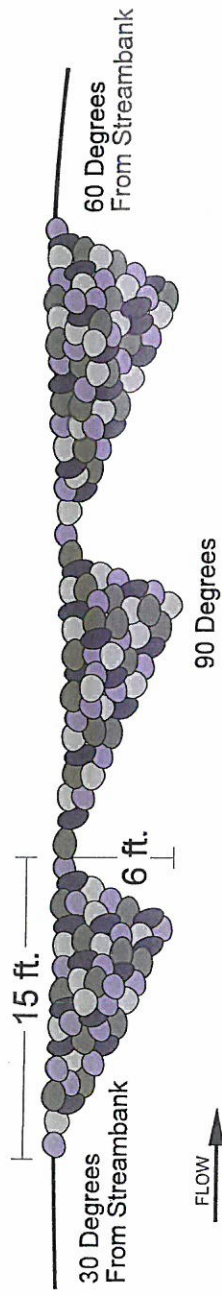


Section View

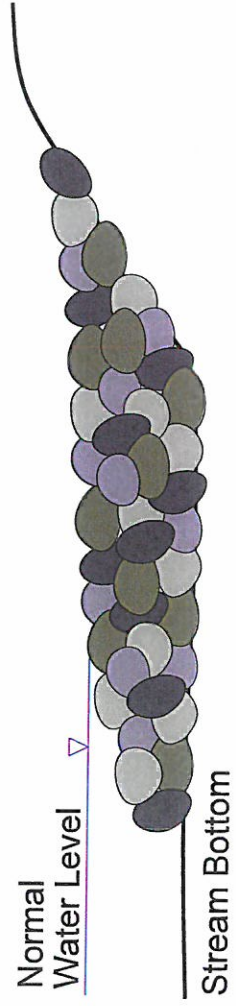


# SAW-TOOTH DEFLECTORS

Plan View



Section View





# Vintondale Borough





**Total Impacts**  
 7434 Sq. ft  
 1034 Linear ft

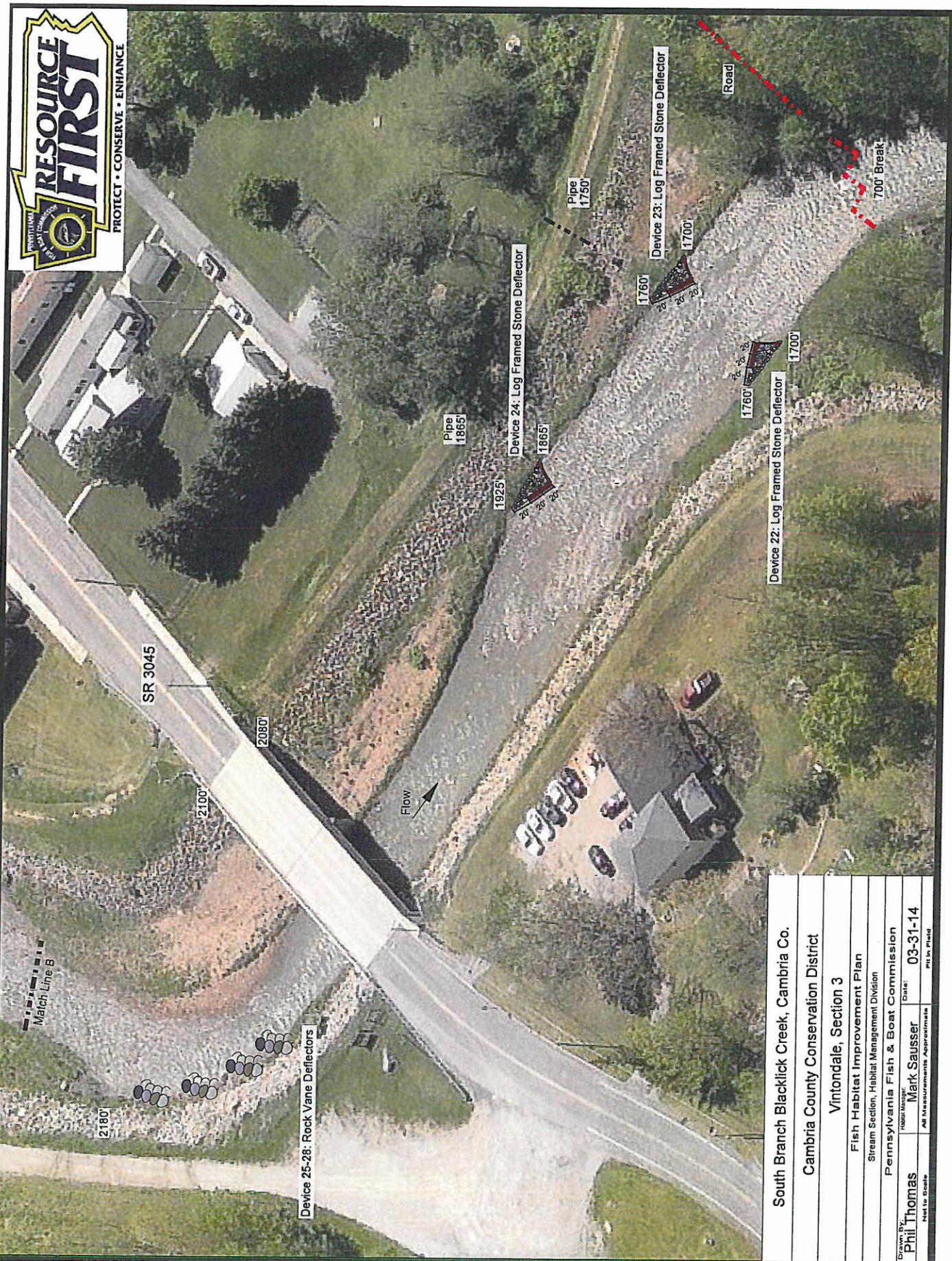
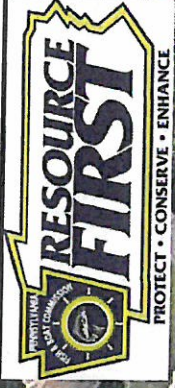
South Branch Blacklick Creek, Cambria Co.	
Cambria County Conservation District	
Vintondale, Section 1	
Fish Habitat Improvement Plan	
Stream Section, Habitat Management Division	
Pennsylvania Fish & Boat Commission	
Drawn by: <b>Phil Thomas</b>	Date: <b>03-31-14</b>
Not to Scale All Measurements Approximate Pft. in Field	





South Branch Blacklick Creek, Cambria Co.	
Cambria County Conservation District	
Vintondale, Section 4	
Fish Habitat Improvement Plan	
Stream Section, Habitat Management Division	
Pennsylvania Fish & Boat Commission	
Drawn By: Phil Thomas	Date: 03-31-14
Scale: Not to Scale	All Measurements Approximate
	PT in Field





South Branch Blacklick Creek, Cambria Co.	
Cambria County Conservation District	
Vintondale, Section 3	
Fish Habitat Improvement Plan	
Stream Section, Habitat Management Division	
Pennsylvania Fish & Boat Commission	
Drawn By: <b>Phil Thomas</b>	Habit Manager: <b>Mark Sausser</b>
Not to Scale	Date: <b>03-31-14</b>
All Measurements Approximate	
PH in Field	





South Branch Blacklick Creek, Cambria Co.	
Cambria County Conservation District	
Vintondale, Section 2	
Fish Habitat Improvement Plan	
Stream Section, Habitat Management Division	
Pennsylvania Fish & Boat Commission	
Prepared by: <b>Phil Thomas</b>	Habit Manager: <b>Mark Sausser</b>
Date: <b>03-31-14</b>	
All Measurements Approximate	
PS In Field	



**Project Materials List**  
 South Branch Blacklick Creek, Cambria County  
 Vintondale

<b>Device: Log Framed Stone Deflector</b>				
<b>Device#: 1-6, 19, 22-24, 29-34</b>				
<b>Materials</b>	<b>Quantity Per One Device</b>		<b>Total Devices</b>	<b>Total For 16 Devices</b>
Frame Log: 25'x 8-10" Dia.	1		16	16
Face Logs: 20'x 8-10" Dia.	4			64
Sill Logs: 10'x 10-12" Dia.	3			48
Rebar Pins (5/8"): 2'	8			128
Rebar Pins (5/8"): 4'	10			160
Stone (12-18" Dia.) tons	30			480
Other: Seed & Mulch				

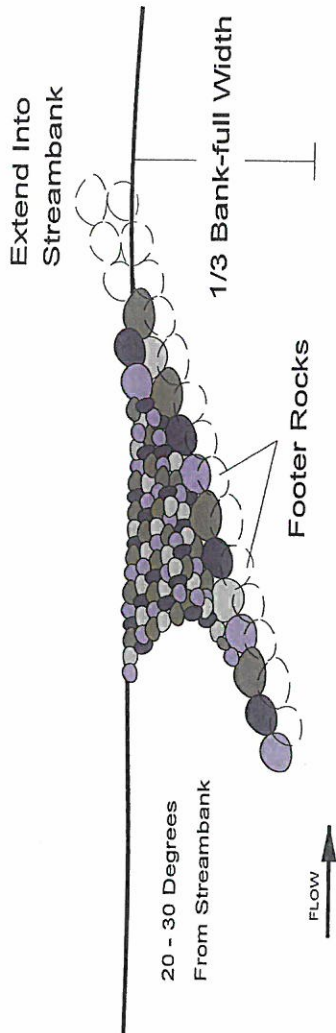
<b>Device: Single Log Vane Deflector</b>				
<b>Device#: 20, 21</b>				
<b>Materials</b>	<b>Quantity Per One Device</b>		<b>Total Devices</b>	<b>Total For 2 Devices</b>
Logs: 20'x 8-10" Dia.	1		2	2
Rebar Pins (5/8"): 4'	5			10
Stone (12-18" Dia.) tons	5			10
Other: Seed & Mulch				

<b>Device: Rock Vane Deflector</b>				
<b>Device#: 25-28</b>				
<b>Materials</b>	<b>Rocks Per One Device</b>		<b>Total Devices</b>	<b>Total For 4 Devices</b>
Stone (30-40" Dia.) Rocks	2		4	8
Other: Seed & Mulch				

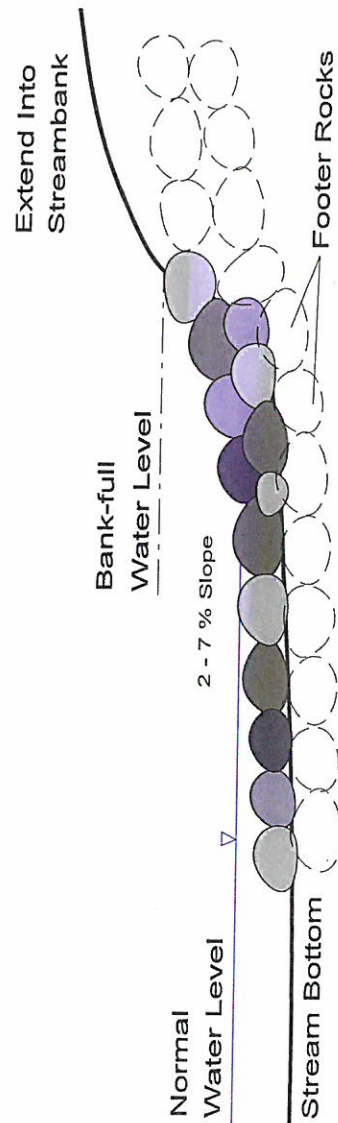
<b>Device: Boulders</b>				
<b>Device#: 7-18</b>				
<b>Materials</b>	<b>Rocks Per One Device</b>		<b>Total Devices</b>	<b>Total For 12 Devices</b>
Stone (30-40" Dia.) Rocks	1		12	12
Other: Seed & Mulch				

# ROCK VANE DEFLECTOR

Plan View

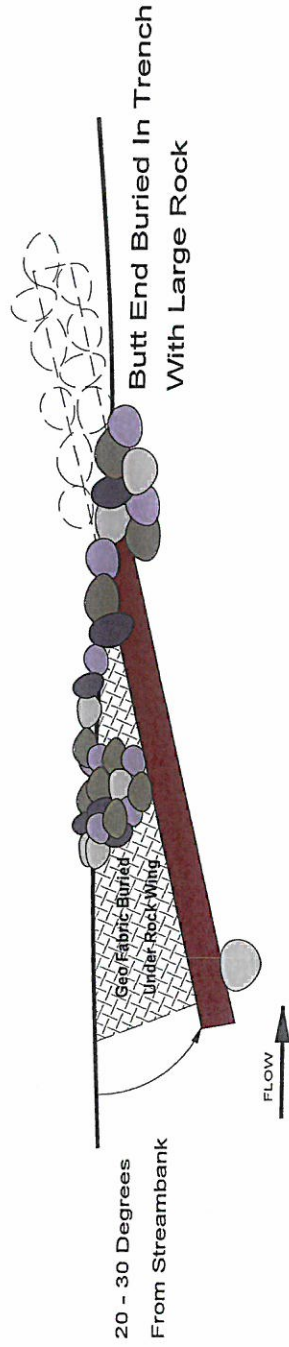


Section View



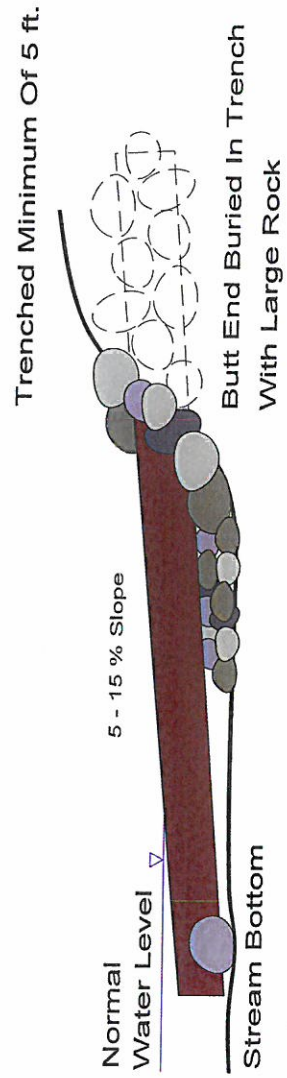
# SINGLE LOG VANE DEFLECTOR

Plan View



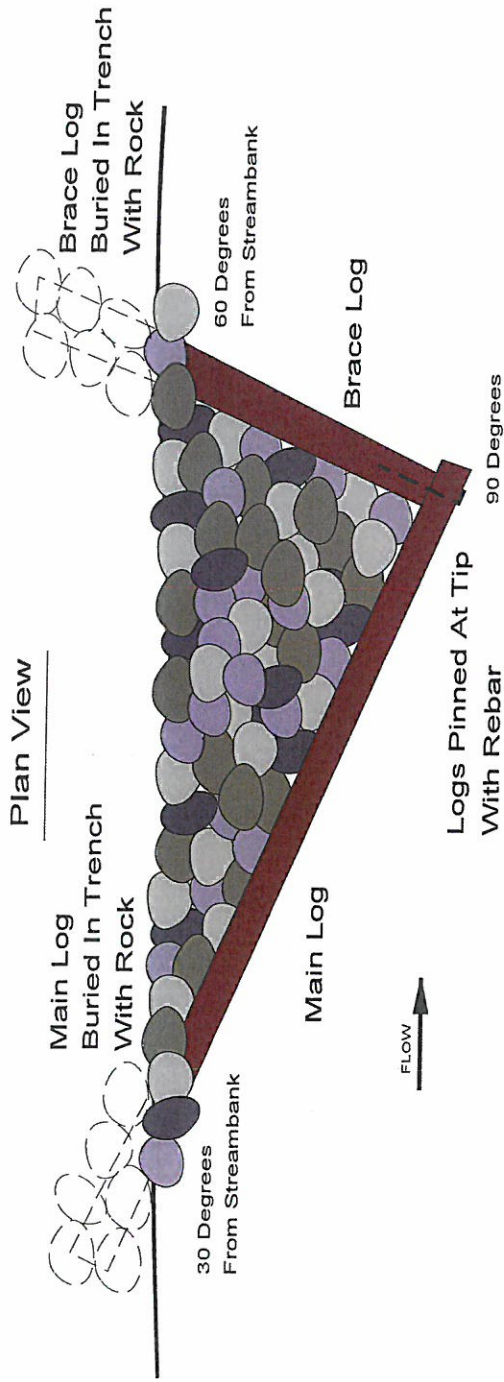
4' Rebar Pin

Section View

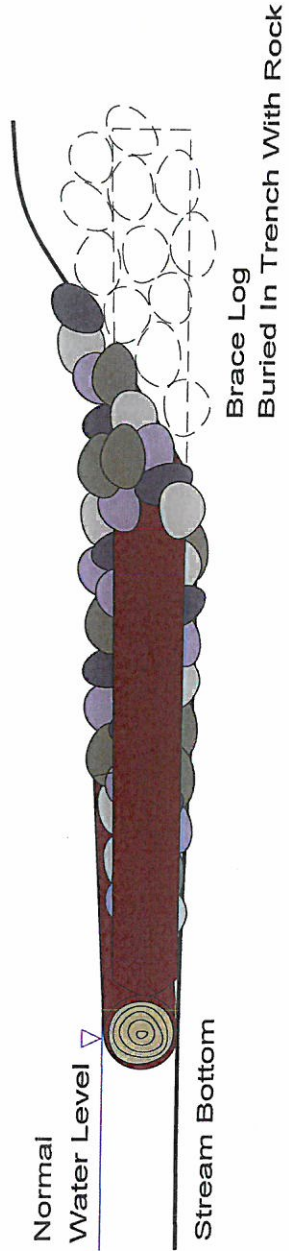




# LOG FRAMED STONE DEFLECTOR

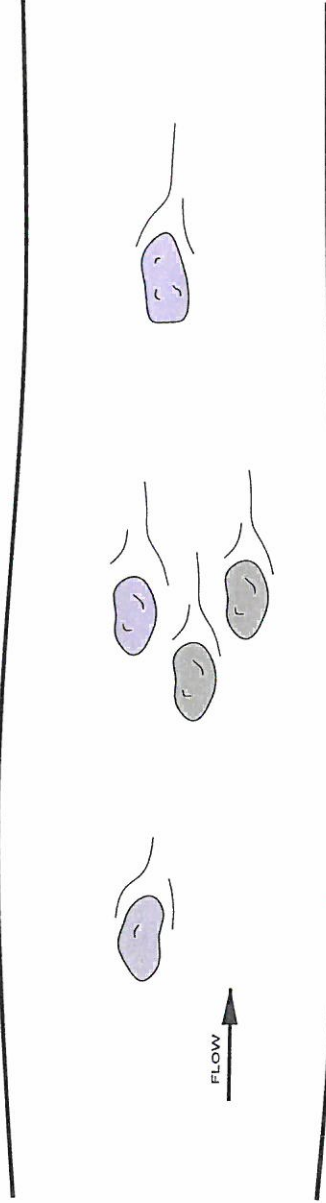


## Section View



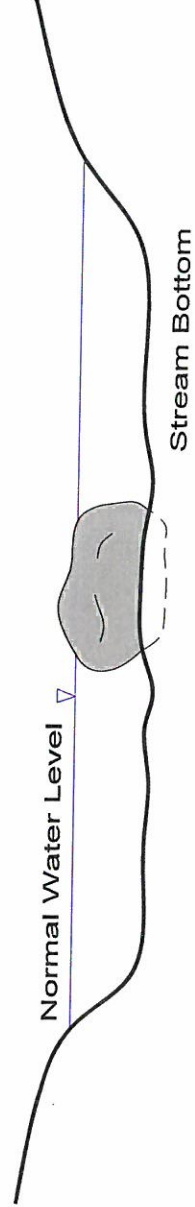
## RANDOM BOULDER PLACEMENT

Plan View



NOTE: Place Boulders in the middle third of the wetted width of the stream to prevent flow deflection into the streambanks.

Section View



NOTE: Boulder should be large enough not to be displaced during high flow periods.