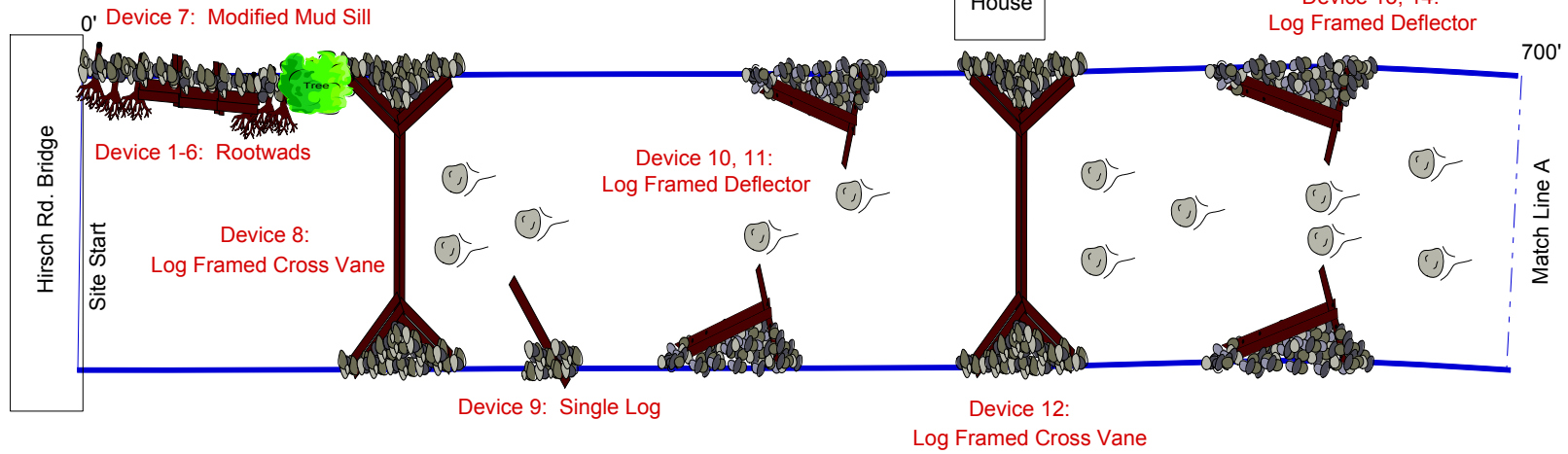
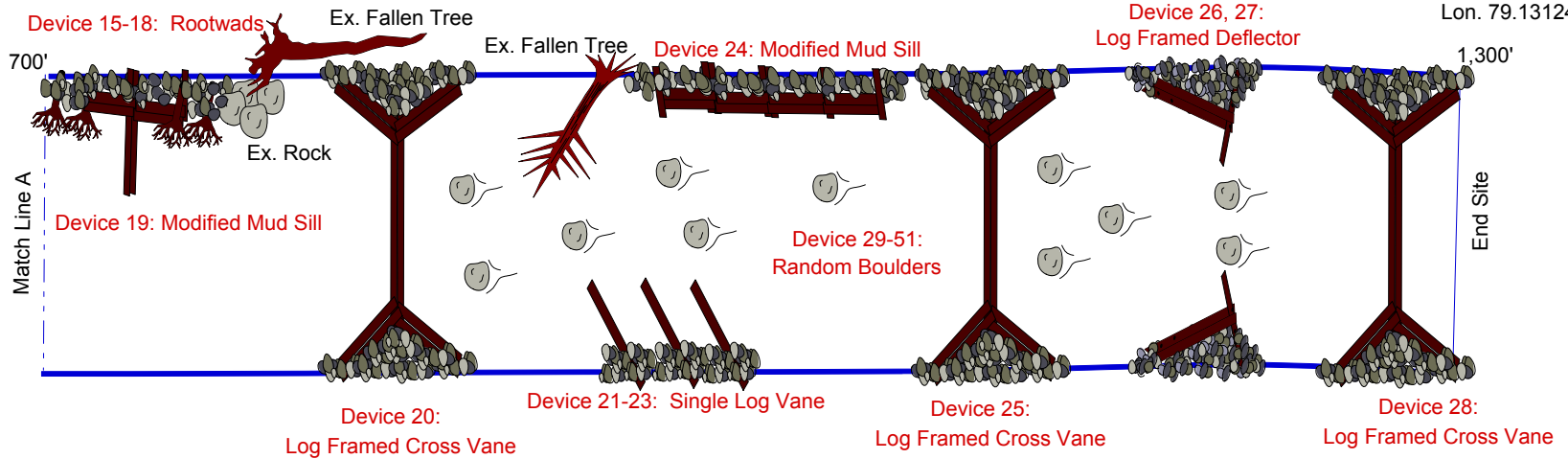


Lat. 40.36343
 Lon. 79.12967

Section 1 and 2



Lat. 40.36580
 Lon. 79.13124



Linear: 730'
 Square: 4,215'

Tubmill Creek, Westmoreland County		
WPC		
Limbach II		
Fish Habitat Improvement Plan		
Stream Section, Habitat Management Division		
Pennsylvania Fish & Boat Commission		
Drawn By:	Habitat Manager:	Date:
Mark Sausser	Mark Sausser	1/05/2017
Not to Scale	All Measurements Approximate	Fit in Field

Project Materials List

Tubmill Creek, Westmoreland County Limbach 2

Device: Log Framed Cross Vane				
Device#: 8, 12, 20, 25, 28				
Materials	Quantity Per One Device		Total Devices	Total For 5 Devices
Face Logs: 25'x 8-10" Dia.	8		5	40
Cross Logs: 30'x 8-10" Dia.	2			10
Rebar Pins (5/8"): 4'	36			180
Stone (12-24" Dia.) tons	50			250
Geo Fabric:	6' x 30'			150'
Other: Seed & Mulch				

Device: Log Framed Deflector				
Device#: 10, 11, 13, 14, 26, 27				
Materials	Quantity Per One Device		Total Devices	Total For 6 Devices
Sill Logs: 25'x 8-10" Dia.	1		6	6
Face Logs: 25'x 8-10" Dia.	2			12
Rebar Pins (5/8"): 4'	10			60
Stone (12-24" Dia.) tons	20			120
Other: Seed & Mulch				

Device: Modified Mud Sill				
Device#: 19				
Materials	Quantity Per One Device		Total Devices	Total For 1 Devices
Face Logs: 20'x 8-10" Dia.	4		1	4
Sill Logs: 20'x 8-10" Dia.	2			2
Rebar Pins (5/8"): 2'	8			8
Rebar Pins (5/8"): 4'	4			4
Stone (12-24" Dia.) tons	15			15
Other: Seed & Mulch				

Device: Modified Mud Sill				
Device#: 7				
Materials	Quantity Per One Device		Total Devices	Total For 1 Devices
Face Logs: 20'x 8-10" Dia.	6		1	6
Sill Logs: 10'x 8-10" Dia.	4			4
Rebar Pins (5/8"): 2'	10			10
Rebar Pins (5/8"): 4'	8			8
Stone (12-24" Dia.) tons	20			20
Other: Seed & Mulch				

Device: Modified Mud Sill				
Device#: 24				
Materials	Quantity Per One Device		Total Devices	Total For 1 Devices
Face Logs: 20'x 8-10" Dia.	8		1	8
Sill Logs: 10'x 8-10" Dia.	8			8
Rebar Pins (5/8"): 2'	16			16
Rebar Pins (5/8"): 4'	16			16
Stone (12-24" Dia.) tons	40			40
Other: Seed & Mulch				

Device: Single Log Vanes				
Device#: 9, 21-23				
Materials	Quantity Per One Device		Total Devices	Total For 1 Devices
Logs: 25'x 8-10" Dia.	1		4	8
Rebar Pins (5/8"): 4'	6			24
Stone (12-24" Dia.) tons	8			32
Other: Seed & Mulch				

Device: Rootwads				
Device#: 1-6, 15-18,				
Materials	Quantity Per One Device		Total Devices	Total For 1 Devices
Rootwads: 10'x 4-5' Dia. rootball	1		10	10
Rebar Pins (5/8"): 4'	2			20
Stone (12-24" Dia.) tons	3			30
Other: Seed & Mulch				

Device: Random Boulders				
Device#: 29-51				
Materials	Quantity Per One Device		Total Devices	Total For 23 Devices
Stone (24-30" Dia.)	1		23	23

1. PROJECT INFORMATION

Project Name: **Limbach II**

Date of Review: **1/3/2017 02:03:35 PM**

Project Category: **Habitat Conservation and Restoration, In-stream habitat restoration (habitat improvement structures)**

Project Area: **1.54 acres**

County(s): **Westmoreland**

Township/Municipality(s): **FAIRFIELD**

ZIP Code: **15923**

Quadrangle Name(s): **WILPEN**

Watersheds HUC 8: **Conemaugh**

Watersheds HUC 12: **Tubmill Creek**

Decimal Degrees: **40.364220, -79.131113**

Degrees Minutes Seconds: **40° 21' 51.1907" N, 79° 7' 52.62" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	Avoidance Measure	See Agency Response
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Limbach II



- Project Boundary
- Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user

Limbach II



- Project Boundary
- Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

Avoidance Measure: Your project appears to be proposing instream impacts within habitats likely occupied by rare fish and/or mussel species. Due to the susceptibility of these species to instream disturbances, we recommend that you contact the PFBC to discuss potential measures to protect and conserve the habitat for these rare species, thus helping to prevent further declines in their populations.

As the project proponent or applicant, I certify that I will implement the above Avoidance Measure:

_____ (Signature)

SPECIAL NOTE: If you agree to implement the above Avoidance Measure, no further coordination with this agency regarding threatened and endangered species and/or special concern species and resources is required. If you are not able to comply with the Avoidance Measures, you are required to coordinate with this agency - please send project information to this agency for review (see "What to Send" section).

PFBC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Lampetra aepyptera	Least Brook Lamprey	Special Concern Species*

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

___ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

___ A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

___ **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

___ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

___ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov
Fax: (717) 772-0271

PA Fish and Boat Commission

Division of Environmental Services
450 Robinson Lane, Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: _____
Company/Business Name: _____
Address: _____
City, State, Zip: _____
Phone: (____) _____ Fax: (____) _____
Email: _____

8. CERTIFICATION

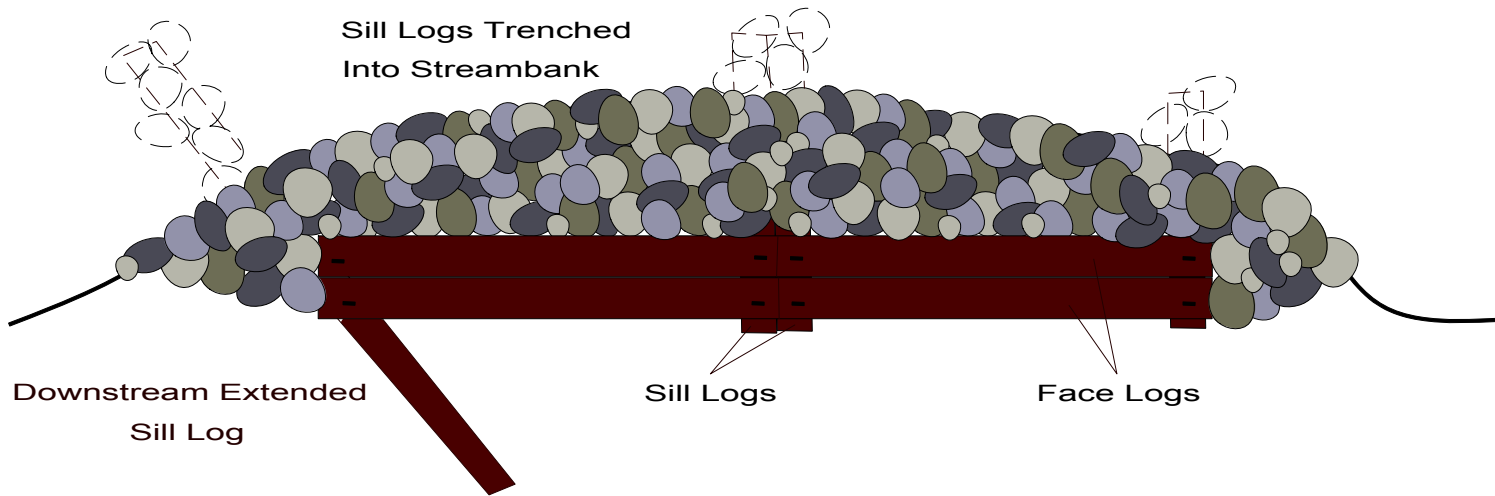
I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

applicant/project proponent signature

date

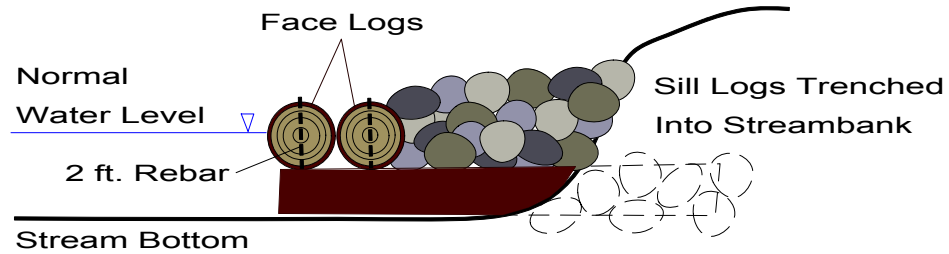
MODIFIED MUD SILL CRIBBING

Plan View



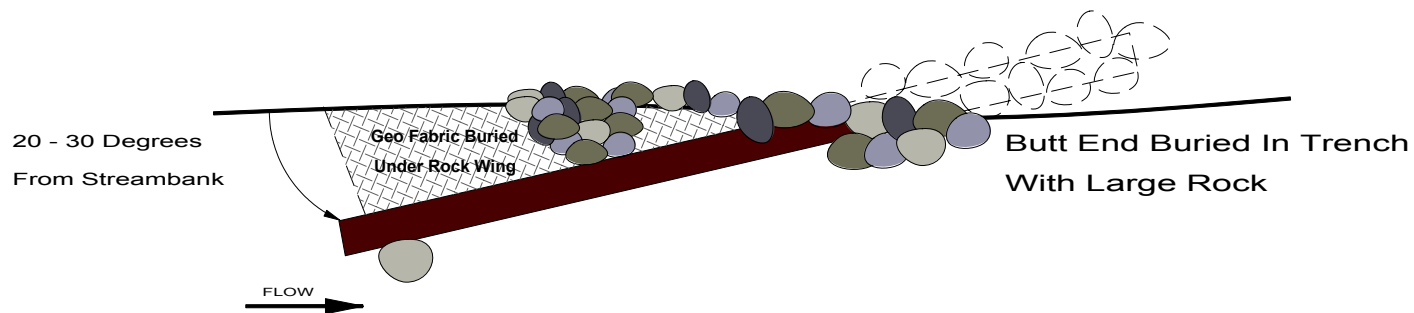
NOTE: Sill Logs Should Be Placed Every 15 ft.

Section View



SINGLE LOG VANE DEFLECTOR

Plan View

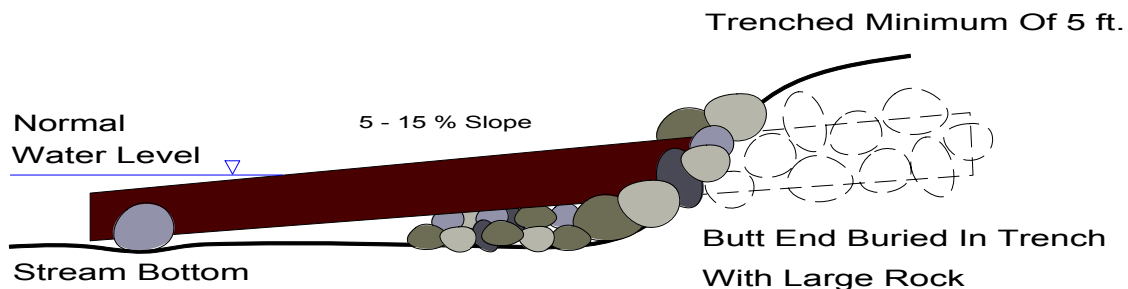


NOTE: Can place a large rock at tip as a brace.



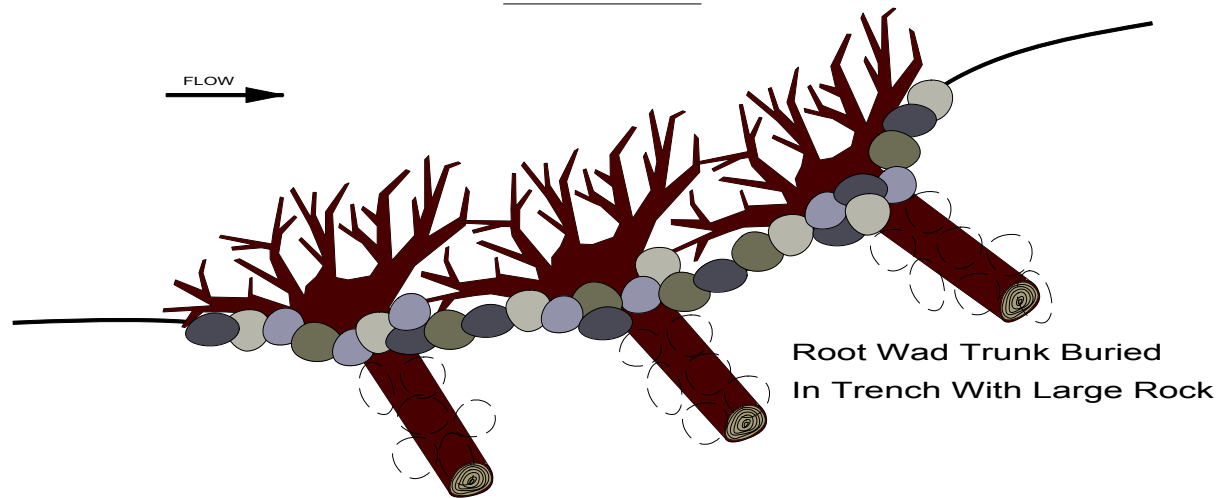
4' Rebar Pin

Section View



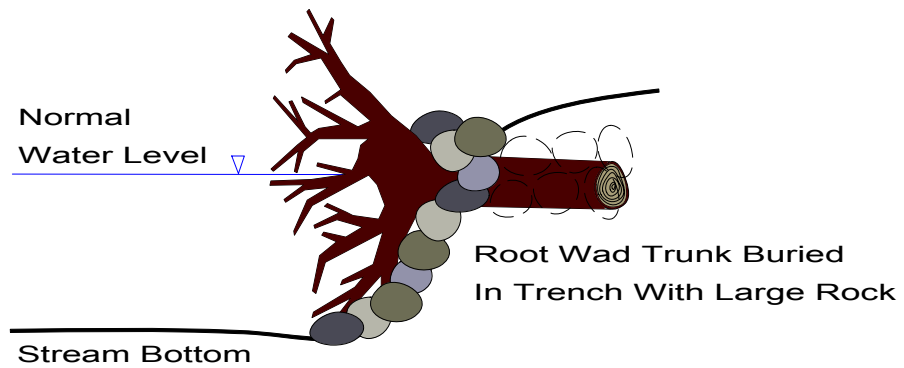
ROOT WAD DEFLECTOR

Plan View



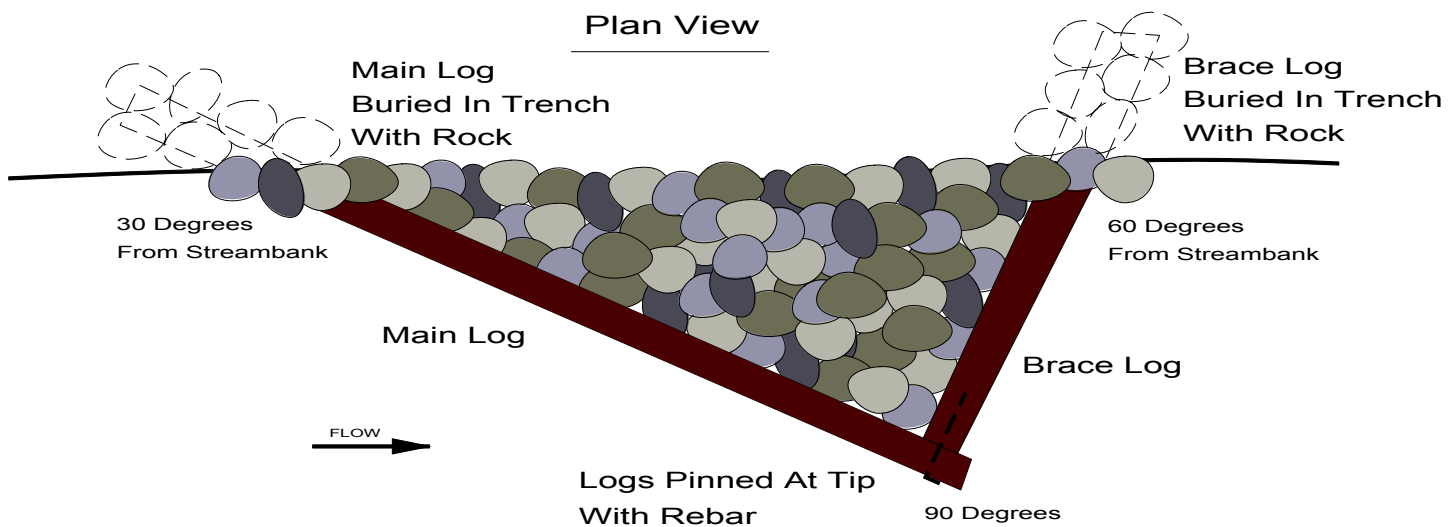
NOTE: Can be placed as a single deflector, or overlapping as shown.

Section View

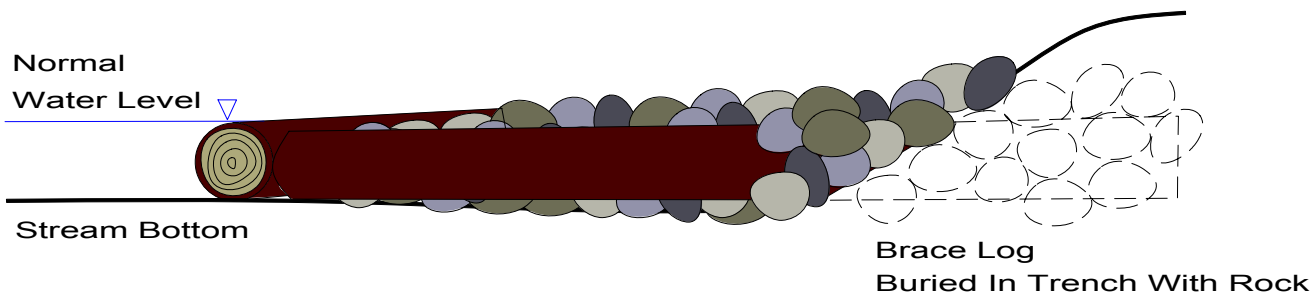


LOG FRAMED STONE DEFLECTOR

Plan View

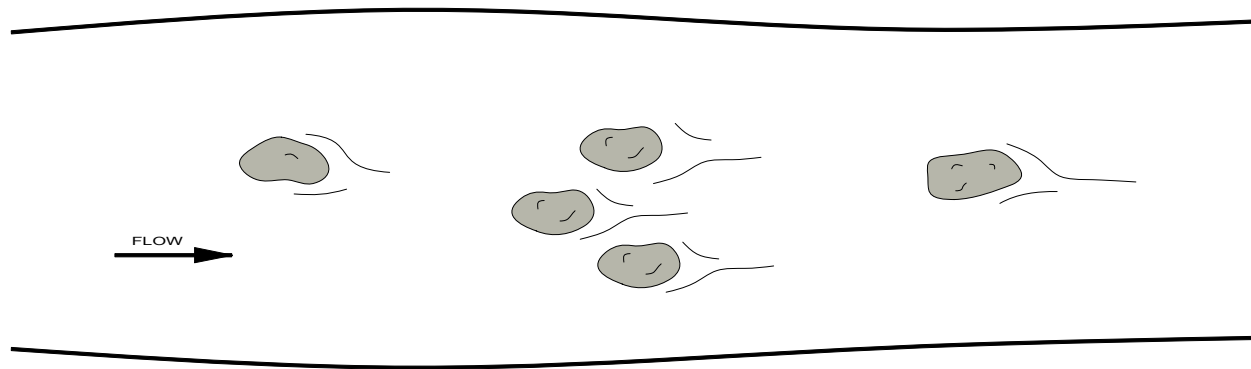


Section View



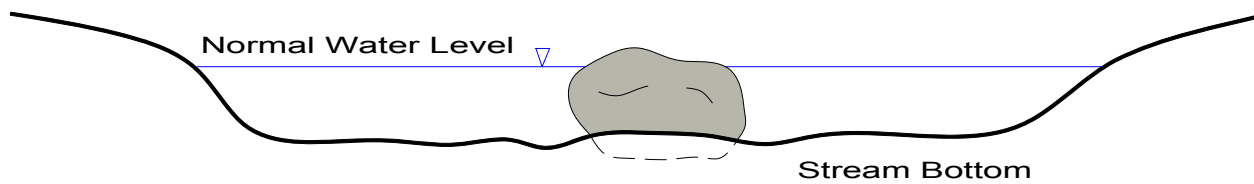
RANDOM BOULDER PLACEMENT

Plan View



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

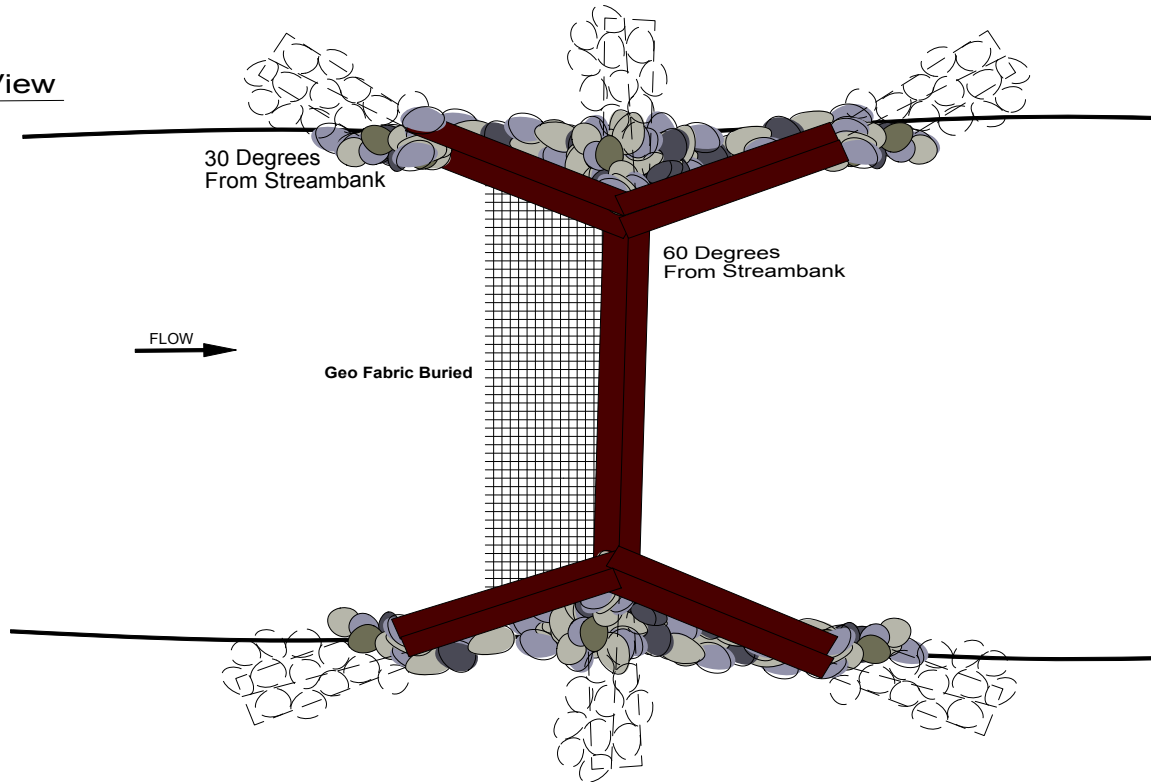
Section View



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

LOG FRAMED CROSS VANE

Plan View



Section View

