PASSIVE TREATMENT SYSTEM O&M INSPECTION REPORT

6/2007

Inspection Date:		Project Name:	**Mathews Restoration Area**
Inspected by:		Municipality:	**Dunkard Township**
Organization:		County:	**Greene** State: **PA**
Time Start:	End:	Project Coordinates:	**39.748609271** Lat **-79.964083887** Long
Receiving Stream:	**Unnamed Tributary**	Subwatershed:	**Dunkard Creek** Watershed: **Monongahela River**

Weather (circle one): Snow Heavy Rain Rain Light Rain Overcast Fair/Sunny **Temp(°F):** ≤32 33-40 41-50 51-60 60+

Is maintenance required? Yes/No If yes, provide explanation:

INSPECTION SUMMARY

A. Site Vegetation

Overall condition of vegetation on site: 0 1 2 3 4 5 (0=poor, 5=excellent, circle one) (See instructions.)
Is any reseeding required? Yes/No If yes, describe area size and identify location on Site Schematic:

B. Site Access

Are the access roads passable for operation and monitoring? Yes/No?
Maintenance performed?_____
Maintenance Needed?_____
Additional comments?_____

C. Wildlife Utilization

Animal sighted or tracks observed _____
Invasive plants observed _____
Describe any damage caused to treatment system by wildlife (especially muskrats) and required maintenance:

D. Vandalism and "Housekeeping"

Is there evidence of vandalism to the site? Yes/No? Is there litter around/in the passive system? Yes/No? If Yes, was the litter picked up? Yes/No?
Is there litter that may be considered hazardous or dangerous that requires special disposal? Yes/No?

E. Diversion Ditches, Collection Channels, and Spillways

Ditch	Stable (Y/N)	Slumping (Y/N)	Erosion Rills (Y/N)	Debris Present (Y/N)	Tension Cracks (Y/N)	Vegetation Successful (Y/N)	Functioning Properly (Y/N)	Water Overtopping Ditch (Y/N)	Water Flowing (Y/N)
1. Diversion									
a. DD1									
b.DD2									
2. Spillways									
a. FB									
b. VFP1									
c. SP1									
d. OPC									
e. VFP2A									
f. VFP2B									
g. WL									
h. HFLB									

Maintenance Performed or Needed?_____
_____
_____

F. Culverts - Indicated on plan by

Culvert #	Culvert functioning (ie Is it handling all the water? Yes/No)	Culvert Condition				Maintenance Performed (identify culvert number)	Maintenance Needed (identify culvert number)
		Good? (Yes/No)	Crushed? (Yes/No)	Plugged? (Yes/No)	Broken? (Yes/No)		
1							
2							
3							
4							
5							
6							
7							
8							

Additional comments_____

_____

G. Passive Treatment Components

Enter pH, temp, alkalinity, flow and other field data as applicable in Section Q. If water samples were collected enter bottle numbers.

Component	Stable (Y/N)	Slumping (Y/N)	Erosion Rills (Y/N)	Tension Cracks (Y/N)	Vegetation Successful (Y/N)	Water level Change or Overtopping Berm (Y/N)	Debris Present (Y/N)	Significant Siltation (Y/N)	Valves Functioning (Y/N)	Pipes Flowing (Y/N)	Pipe(s) broken or plugged (Y/N)
FB											
VFP1											
SP1											
OPC											
VFP2A											
VFP2B											
SP2											
WL											
HFLB											
VFP3											

Is Forebay 1 collecting all mine drainage? Yes/No?

Identify all pipes not flowing:_____

_____

Identify all broken pipes:_____

_____

Identify all valves not functioning:_____

_____

Is there an unbearable rotten egg smell from VFPs? Yes/No Which VFPs:_____

Is water flowing on top of the HFLB? Yes/No?

Maintenance Performed?_____

_____

Maintenance Needed?_____

_____

Additional comments?_____

_____

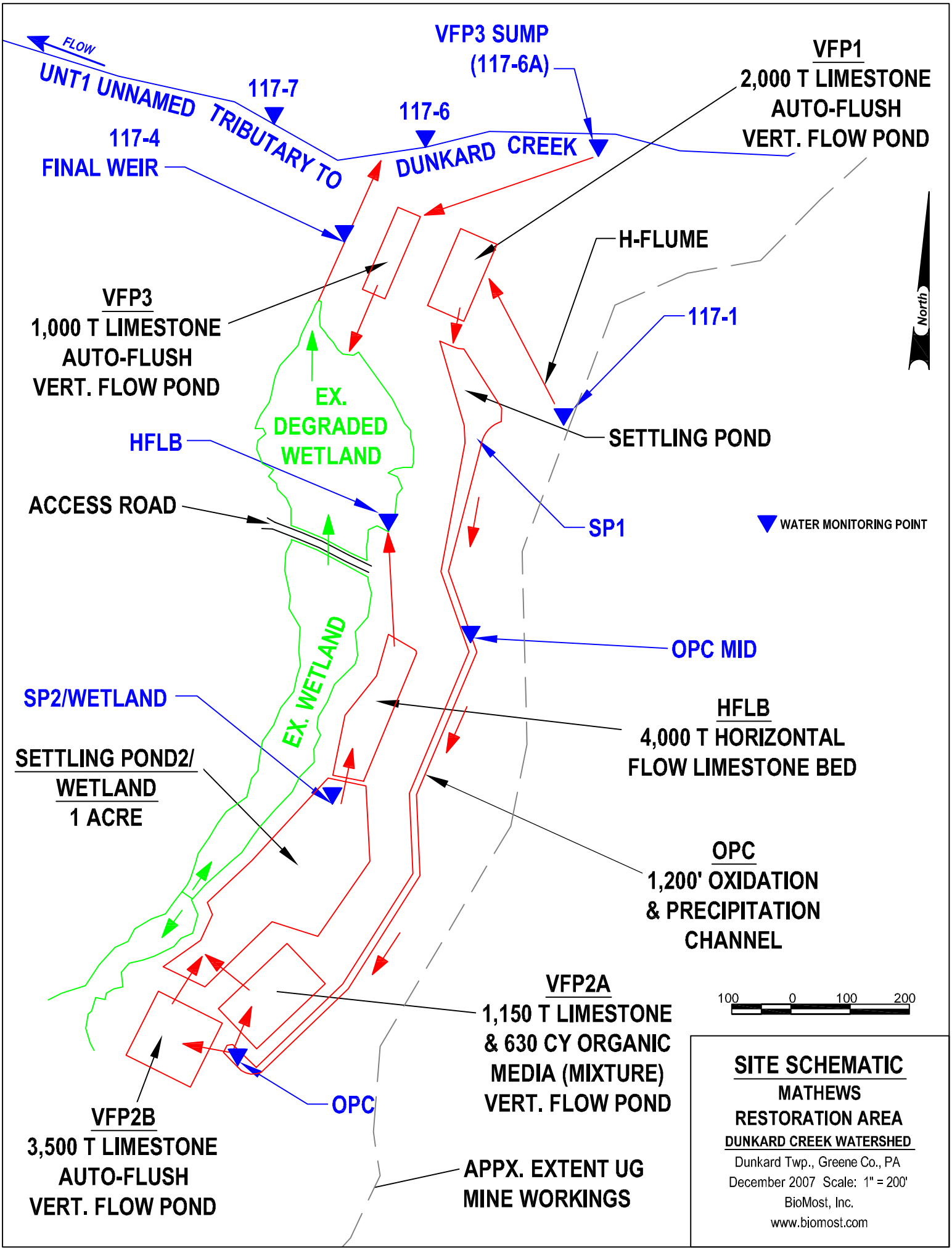
H. Field Water Monitoring and Sample Collection - Water sample locations as marked on the site schematic. For passive components the sample point is at the effluent of the named component. The following table provides the opportunity to conduct extensive monitoring if/when desired, however at a minimum, field parameters should be conducted at the following sample points during site inspections indicated by *.

☐ **-** Not monitored

Sampling Point	Flow Measurements		Calculated Flow (gpm)	pH	Temp (°C)	Alkalinity (mg/L)	DO (mg/L)	Iron (mg/L)	Comments	Bottle #	Bottle # (total metals)	Bottle # (diss. metals)
	gals.	sec.										
117-1*												
VFP1												
SP1												
OPC Mid												
OPC												
VFP2A (composite)												
Pipe 1												
Pipe 2												
Pipe 3												
Wetland												
HFLB*												
VFP3												
117-4*												
117-7*												
117-6*												

117-1 Flume Measurement in tenths of feet _____

117-4 Weir Measurement in tenths of feet _____


FLOW
UNT1 UNNAMED TRIBUTARY TO
DUNKARD CREEK
117-7
117-6
117-4
FINAL WEIR
VFP3 SUMP
(117-6A)
VFP1
2,000 T LIMESTONE
AUTO-FLUSH
VERT. FLOW POND
H-FLUME
117-1
North
VFP3
1,000 T LIMESTONE
AUTO-FLUSH
VERT. FLOW POND
EX.
DEGRADED
WETLAND
HFLB
ACCESS ROAD
SETTLING POND
SP1
WATER MONITORING POINT
EX. WETLAND
OPC MID
SP2/WETLAND
HFLB
4,000 T HORIZONTAL
FLOW LIMESTONE BED
SETTLING POND2/
WETLAND
1 ACRE
OPC
1,200' OXIDATION
& PRECIPITATION
CHANNEL
100 0 100 200
VFP2A
1,150 T LIMESTONE
& 630 CY ORGANIC
MEDIA (MIXTURE)
VERT. FLOW POND
OPC
VFP2B
3,500 T LIMESTONE
AUTO-FLUSH
VERT. FLOW POND
APPX. EXTENT UG
MINE WORKINGS
SITE SCHEMATIC
MATHEWS
RESTORATION AREA
DUNKARD CREEK WATERSHED
Dunkard Twp., Greene Co., PA
December 2007 Scale: 1" = 200'
BioMost, Inc.
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