

**Hydrologic Determination Certification
Metro Nashville Stormwater Division**

Map & Parcel: _____
Address: _____
Project Name: _____
Owner/ Developer: _____

A hydrologic determination was performed on _____ by qualified staff for a conveyance located on the above parcel in accordance with the hydrologic determination guidance developed by TDEC and approved by MWS. Based on the observed geomorphology, hydrology, and biology, the conveyance is a wet weather conveyance (WWC) and not a community water as defined by Section 6.9 of Nashville's Stormwater Management Manual, Volume 1.

HD performed by:

Name & Firm: _____

Signature: _____

Signature and stamp of Professional Engineer designing the project.

Attach:
Hydrologic Determination Field Sheet
Map
Photos of beginning, middle, and end of WWC
GPS coordinates of beginning and end of WWC on property

****MWS reserves the right to verify any hydrologic determination, especially those performed during drier months.****

This document should be submitted with the Grading Permit application for all conveyances that will not be protected.

Hydrologic Determination Field Data Sheet Tennessee Division of Water Pollution Control

Assessor :	Date / Time :					
Waterbody :	HUC :					
Location / Site Name :						
County :	Lat/Long 1 :	Lat/Long 2 :				
Previous Rainfall (7-day) :	USGS Quad :					
Seasonal Precip vs. Norm :	very wet	wet	average	dry	drought	unknown
Photos Taken ? / Number :	Others Present :					

FIELD INDICATORS OBSERVED

	Absent	Weak	Moderate	Strong	N/A
GEOMORPHOLOGY					
1) Channel has well-defined bed and bank					
2) Channel is sinuous					
3) Presence of hydraulic diversity (riffle - pool sequence)					
4) Hydric soils present in streambed or sides of channel					
5) Presence of floodplain or bankful bench					
6) Channel is 2 nd order or greater					
7) Gravel / Cobble substrate in channel bed					
8) Historic land uses have altered natural channel morphology (e.g. channelization / livestock access)					
HYDROLOGY					
1) Non-storm flow present ?					
2) Storm-related flow present ?					
3) Obvious groundwater connections (seeps, springs, etc)					
4) Subsurface / interstitial flow in substrate detected					
5) Channel has associated / adjacent wetlands					
6) Presence of last fall's leaf litter in channel					
7) Historic land uses have altered natural hydrology (e.g. french drains / livestock activities)					
BIOLOGY					
1) Presence of Fish					
2) Presence of Crustaceans (crayfish, scuds, isopods)					
3) Presence of EPT (mayflies, caddisflies, stoneflies)					
4) Other Inverts (odonates, pennies, tipulids, midges, etc)					
5) Presence of Mollusca (Snails, clams)					
6) Indicators of aquatic inverts (caddis cases or nets, larval skins, midge tubes, etc)					
7) Periphyton present on substrate					
8) Filamentous algae present in channel					
9) Instream root wads / oxidized root channels					
10) Hydrophytic vegetation present in channel					
11) Rooted, non-aquatic plants present in streambed					

Overall Hydrologic Determination =

Justification / Comments :

Comments (cont.)

SITE SKETCH

Hydrologic Determination Guidance Key
Tennessee Division of Water Pollution Control

<u>STEP</u>	<u>GO TO STEP</u>
1. Does the hydrologic feature exist solely due to a process discharge ?	Yes ... go to END1 No go to 2
2. Is the hydrologic feature defined by a linear channel or channels?	Yes ... go to 6 No go to 3
3. Does the hydrologic feature exhibit enough of the COE-defined wetland characteristics (e.g. hydric soils, hydrophytic vegetation, hydrology) to likely qualify as a jurisdictional wetland ?	Yes ... go to END2 No go to 4
4. Is the hydrologic feature a “pond” (open water lentic habitat) ?	Yes ... go to 5 No go to 6
5. Is there a well-defined watercourse leading into or out of the pond ?	Yes ... go to 6 No go to END3
6. Does the watercourse presently have flow ?	Yes ... go to 8 No go to 7
7. When watercourse has flow, does it flow continuously for more than 30 days during a normal hydrologic year ?	Yes ... go to END4 No go to END1 Uncertain ... go to 10
8. Has there been precipitation runoff in the local watershed in the past 5 days ?	Yes ... go to 9 No go to END4 Uncertain ... go to 9
9. Are aquatic biota indicative of extended periods of flow present ?	Yes ... go to END4 No go to 10
10. Do observed field characteristics / features* indicate that it is more likely than not that the watercourse flows or supports fish & aquatic life for extended periods of time during a normal hydrologic year ?	Yes ... go to END4 No go to END1

Document your observations & rationale

* note - see *Hydrologic Field Data Sheet* for field indicators

- END1 : Watercourse is a **Wet Weather Conveyance**. Alterations are covered under the *General Aquatic Resource Alteration Permit (ARAP) for Wet Weather Conveyances*. In-channel water quality and quantity control structures are usually permissible.
- END2 : Hydrologic feature may be a **Wetland**. The feature should be delineated by a qualified wetland expert using USCOE methodology. Alteration may require an individual or general ARAP, depending on size and connectivity of wetland.
- END3 : Hydrologic feature is an **Isolated Pond**. If completely contained on private property, alterations do not require an ARAP. However, discharges resulting from alterations of ponds, including draining, may require NPDES permit coverage.
- END4 : Watercourse is a jurisdictional **Stream**. Physical alteration requires either an individual or general ARAP, depending on the nature and scale of alteration. Buffer regulations in the *Construction Stormwater General Permit* may apply. In-channel water quality and quantity control structures are generally not permissible.

TDEC / WPC
December 12, 2006