Changes to Urban Stream Restoration Expert Panel Report

The following summarizes proposed changes to the Urban Stream Restoration Expert Panel Report (version dated 3/1/2013) reflecting comments that were raised at the March 4th, 2013 Watershed Technical Work Group (WTWG) meeting. A revised list of pertinent tracking information for the different protocols is also provided below. The WTWG will decide whether the States or the CBPO will collect this information. Upon acceptance of these modifications by the WTWG, we will make the revisions to the final document for consideration by the WQGIT.

To address the issue of how these protocols apply to non-urban streams we will make it clear that Protocols 1 and Protocol 2 do not distinguish between land cover. We will also modify Protocol 3 and add clarifying language to show that urban and non-urban projects should follow exactly the same procedure. This protocol uses the Bay Watershed Model loadings from the upstream watershed (Table 6) and multiplies it by the efficiencies from Figures 4, 5 and 6. Differences between urban and non- urban load reductions are reflected in the CBWM loading estimates from the upstream watershed.

Table 6. Edge of Stream Unit Loading Rates for Bay States Using CBWM v. 5.3.2

BAY STATE	*Total Nitrogen*		*Total Phosphorus*		*Total Suspended Sediment*	
	lb/ac/year				*lb/ac/year*	
	IMPERV	*PERV*	*IMPERV*	*PERV*	*IMPERV*	*PERV*
DC	*13.2*	*6.9*	*1.53*	*0.28*	*1165*	*221*
DE	*12.4*	*8.7*	*1.09*	*0.25*	*360*	*42*
MD	*15.3*	*10.8*	*1.69*	*0.43*	*1116*	*175*
NY	*12.3*	*12.2*	*2.12*	*0.77*	*2182*	*294*
PA	*27.5*	*21.6*	*2.05*	*0.61*	*1816*	*251*
VA	*13.9*	*10.2*	*2.21*	*0.60*	*1175*	*178*
WV	*21.4*	*16.2*	*2.62*	*0.66*	*1892*	*265*

Source: *Output provided by Chris Brosch, CBPO, 1/4/2012, "No Action" run (loading rates without BMPs), state-wide average loading rates, average of regulated and unregulated MS4 areas*

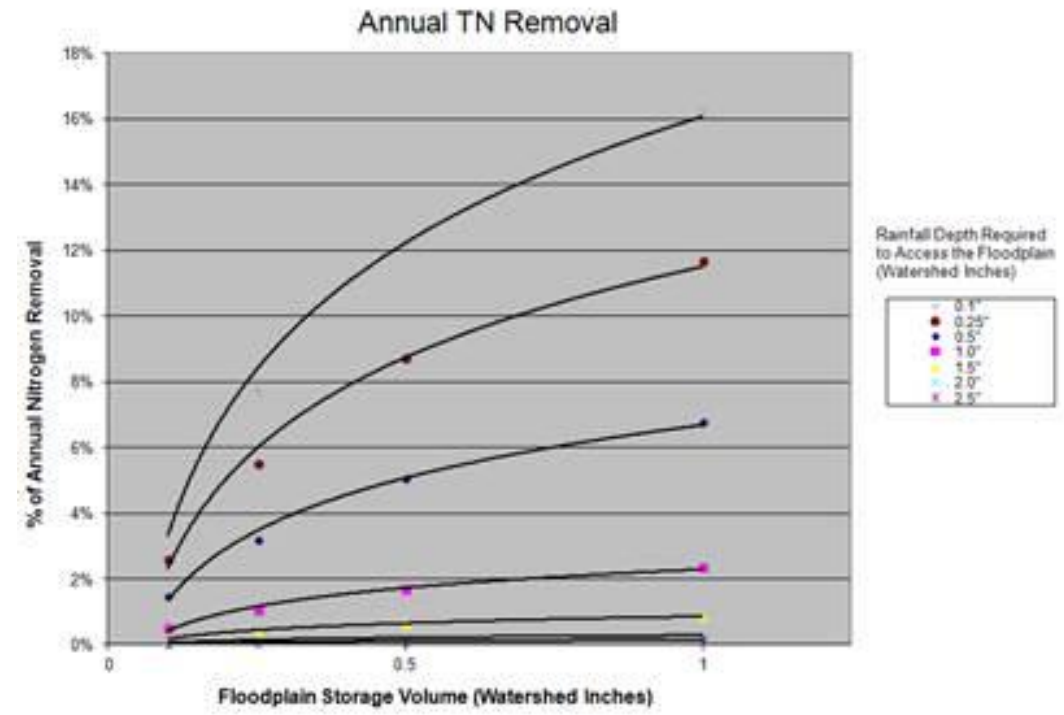

Figure 4. Annual TN removal as a function of floodplain storage volume for several rainfall thresholds that allow runoff to access the floodplain.

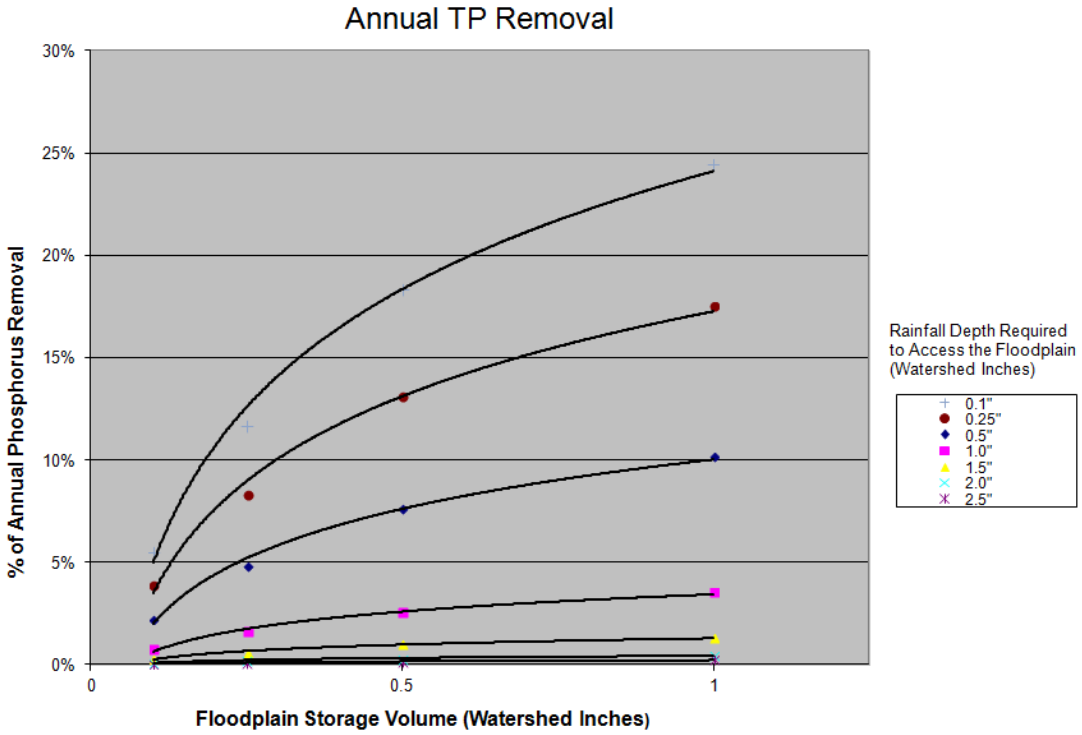

Figure 5. Annual TP removal as a function of floodplain storage volume for several rainfall thresholds that allow runoff to access the floodplain.

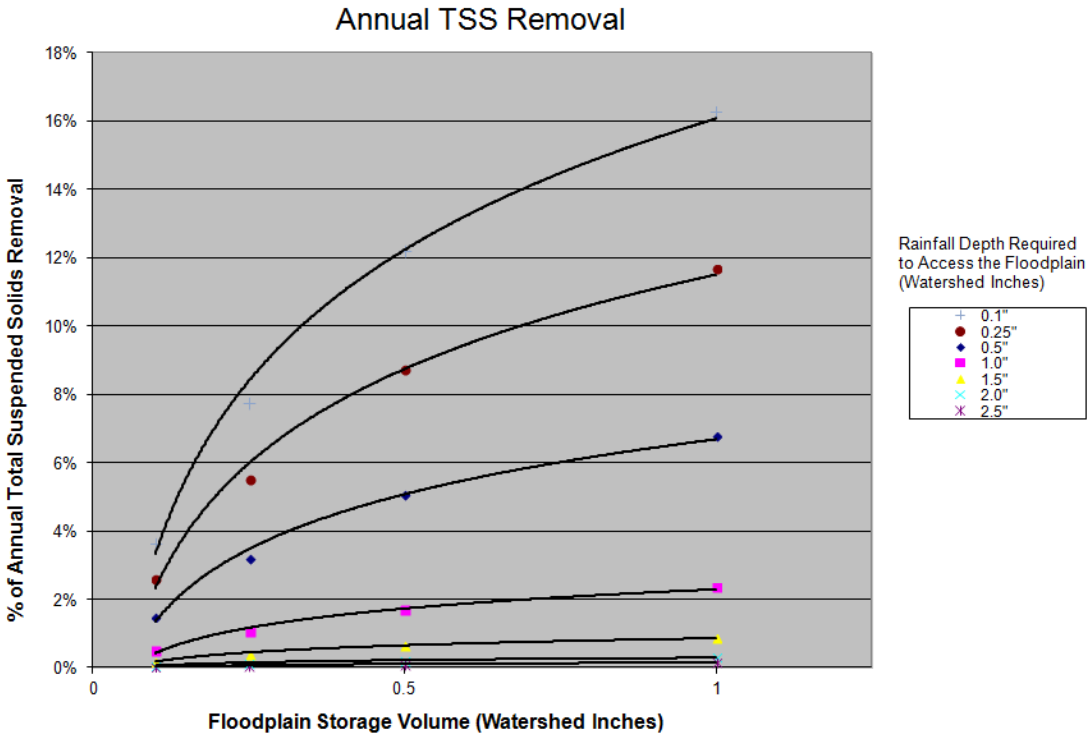

Figure 6. Annual TSS removal as a function of floodplain storage volume for several rainfall thresholds that allow runoff to access the floodplain.

Reporting Requirements

General
Protocol
12-digit watershed
Date installed

Protocol 1
Length
TSS, TP, TN loading rate reduction (pounds per year)

Protocol 2
(info for left and right bank and for pre and post restoration)
length, width (to thalweg), depth
average bank height ratio
TN loading rate reduction

Protocol 3
Flood plain wetland area
Upstream watershed area
Rainfall depth when floodplain reconnection occurs
TSS, TP, TN loading rate reduction