

WOUS and Conversion Test Sheets For Stream Restoration and SWM Retrofit Projects

General Instructions:

The following tables were compiled to help applicants quantify impacts and aquatic resource conversion on stream and wetland restoration projects and stormwater retrofit projects. Restoration impacts, while typically beneficial in nature, often have complex impacts. USACE has an obligation to track and quantify impacts to WOUS (including beneficial ones) and the following tables, if completed accurately, will help expedite their review and permit decisions. The tables have been populated with numbers of an example project to illustrate how to enter the necessary data. Example impact figures are available on the Baltimore District Regulatory website titled "Contrary Creek Examples."

Instructions if you are seeking authorization under Nationwide Permit 27:

NWP 27 was created to streamline permit review for stream and wetland restoration projects which provide functional lift, have minimal adverse impacts, and do not result in conversion among aquatic resource types. Populate the existing vs proposed resources table and the impacts table. *Note: NWP 27 does not authorize conversion. If your project results in conversion as shown in the "Conversion by Resource Type" Table, then your project does not qualify as NWP 27. Exception: When vegetation is improved in a wetland, it may be counted as "enhancement" instead of "conversion" and will be assessed on a case by case basis (ex. Emergent wetland converted to Forested wetland when appropriate).*

Instructions if you are seeking authorization under the Bay TMDL RGP:

The Bay TMDL RGP applies only to projects in the Chesapeake Bay watershed serving the purposes outlined in an acceptable Watershed Implementation Plan (WIP) under the Chesapeake Bay TMDL initiative. These projects are granted limited conversion, but can only be performed in degraded waters (verify in "Degradation Criteria For Streams Tab"), cannot impede aquatic life movement, and cannot occur in tidal waters.

For retrofits projects: Fill out all tabs except for the "Degradation Criteria for Streams" tab.

For stream restoration/enhancement projects: Fill out all tabs.

Instructions if you are seeking authorization under IP or alternate permitting mechanism.

Populate the "Existing vs Proposed Waters" Tab and the "Impacts" Tab.

IMPACTS TABLE

Aquatic Resource Name ¹	Existing Resource Class	Degradation Criteria 1 ²	Activity ³	Impact Duration ⁴	Impact Area (square ft)	Impact Length (linear ft)	Proposed resource class post-construction ⁵
Contrary Creek	Per	BIBI 35%	Old channel Fill	P	20,000	750	UPL
Trib 1	Int	RBP 70	Ponding	P	2,000	250	POW
Trib 1	Int	RBP 64	Restoration/ Enhancement	P	750	200	Int
PFO1	PFO	NA	Haul road fill	T	100	NA	PFO
PFO1	PFO	NA	To stream	P	300	NA	Per
PFO2	PFO	NA	To POW	P	250	NA	POW
PFO 2	PFO	NA	Berm fill	P	200	NA	UPL
Total Temporary and Permanent Impacts					23,600	1200	

Table showing impacts to existing waters. ¹ Resources may be listed multiple times if they receive multiple impacts during construction ² See Section VI of the Bay TMDL RGP and the "Degradation Criteria for Streams" Tab in this worksheet. ³ Identify your activity ⁴ P=permanent T=Temporary ⁵ Identify the kind of resource this particular area will be after construction

EXISTING VS PROPOSED WATERS IN REVIEW AREA

AQUATIC RESOURCES			EXISTING			PROPOSED		CHANGE
Aquatic Resource Name	LAT	LONG	Aquatic Resource Type	Existing Length (feet)	Existing Area (sqft)	Proposed Length (feet)	Proposed Area (sf)	Change
Contrary Creek	37.5821	-83.7583	Perennial	750	20,000	0	0	-750 lf
Trib 1	37.5831	-83.7542	Intermittent	600	1,800	350	1,050	-250 lf int
PFO 1	37.5830	-83.7584	PFO	NA	2,500	NA	2,200	-300 sf PFO
PFO 2	37.5823	-83.7548	PFO	NA	2,500	NA	2,050	-450 sf PFO
Contrary Creek (Restored/Relocated)	37.5817	-83.7577	Perennial	0	0	750	20,000	+750 lf
PFO 3	37.2122	-83.3545	PFO	NA	0	NA	600	+600 sf PFO
POW 1	37.5830	-83.7554	POW	NA	0	NA	30,000	+30,000 sf POW

Table showing existing vs proposed aquatic resources on project site. Resources yet to be created are shown in green. (PFO=Palustrine Forested Wetland, PEM=Palustrine Emergent Wetland, POW=Palustrine Open Water, Per=Perennial Stream, Int=Intermittent Stream, Eph=Ephemeral Stream). For resources which are proposed to change aquatic resource type as a result of the project, add those areas as new resources (green), subtracting that area converted from the proposed column under the resource's original name.

Table showing Conversion by resource type.

¹ Resource Type corresponds to Cowardin Class

² Change is Proposed-Existing.

³ Resource conversion is quantity of existing water which is converted after construction

Conversion by Resource Type				
RESOURCE TYPE ¹	EXISTING	PROPOSED	CHANGE ²	RESOURCE CONVERSION ³
Total Forested Wetland (PFO)	5,000 sf	4850 sf	-150 sf	150 sf
Total Emergent Wetland (PEM)	0	0	0	0
Total Scrub-shrub Wetland (PSS)	0	0	0	0
Total Open Water (POW)	0	30,000 sf	+ 30,000 sf	0
Total Stream	1,350 lf/21,800 sqft	1,100 lf/21,050 sqft	-250 lf/ -750 sqft	250 lf/750 Sf

Total Conversion for Overall Project: 250 lf streams/150 sf wetlands/900 sf of all waters

Conversion Summary*

The Bay TMDL RGP may be used to authorize multiple conversion types for an overall project provided ALL the conversion thresholds are not exceeded.

	Total Conversion for Overall Project	Conversion to Uplands	Conversion Among Aquatic Habitat Types
Wetlands (square feet)	150 sq ft	0	150 sq ft
Streams, rivers, and other open waters	750 sq ft/250 lf	0	750sq ft/250 lf
All Waters of the U.S. (square feet)	900 sq ft	0	900 sq ft

**Table classifying conversion. Compare to Tabel 1 below from the Bay TMDL RGP to determine if your project is eligible for review under the Bay TMDL RGP. If it does not qualify, it will be reviewed under an alternative permitting tool.*

TABLE FROM BAY TMDL RGP

Table 1: Conversion Thresholds under the Bay TMDL RGP¹

The Bay TMDL RGP may be used to authorize multiple conversion types for an overall project provided ALL the following conversion thresholds are not exceeded.

	Total Conversion Limit for Overall Project	Conversion to Uplands Limit	Limit to Conversion Among Aquatic Habitat Types ²
Wetlands (square feet)	5,000 sq ft	5,000 sq ft	5,000 sq ft
Streams, rivers, and other open waters (square feet/linear feet)	10,000 sq ft/500 lf	5,000 sq ft/200 lf	10,000 sq ft/500 lf
All Waters of the U.S. (square feet)	10,000 sq ft	5,000 sq ft	10,000 sq ft

¹ *Impacted aquatic resources that are replaced in-kind and onsite (i.e., relocated) do not count against conversion thresholds provided there is a net increase in aquatic resource functions and services at the project site.*

Stream Degradation Criteria For Existing Streams*

Aquatic Resource Name	LAT	LONG	Aquatic Resource Type	Degradation Criteria 1: BIBI*	Degradation Criteria 2: Modified RBP Score**	Degradation Criteria 3: (Typical BEHI/NBS)
Contrary Creek	37.5821	-83.7583	Perennial	35%	NA	Very High/High
Trib 1	37.5831	-83.7542	Intermittent	NA	67	High/Moderate
PFO 1	37.5830	-83.7584	PFO	NA	NA	NA
PFO 2	37.5823	-83.7548	PFO	NA	NA	NA

* Stream restoration projects authorized under the Bay TMDL RGP may only be authorized in degraded waters. See Section VI of the Bay TMDL RGP. ** See Appendix 1 of the Bay TMDL RGP for EPA's Modified RBP forms for intermittent and ephemeral streams.