Beta Streamflow Duration Assessment Method – Northeast **General site information**

Project name or number:		
Site code or identifier:	**Assessor(s):**	
Waterway name:		Visit date:
Current weather conditions (check one): ☐ Storm/heavy rain ☐ Steady rain ☐ Intermittent rain ☐ Snowing ☐ Cloudy (___ % cover) ☐ Clear/Sunny	Notes on current or recent weather conditions (e.g., precipitation in previous week):	Coordinates at downstream end (decimal degrees): **Lat (N):** **Long (E):** Datum:
Surrounding land-use within 100 m (check one or two): ☐ Urban/industrial/residential ☐ Agricultural (farmland, crops, vineyards, pasture) ☐ Developed open-space (e.g., golf course) ☐ Forested ☐ Other natural ☐ Other: _____	Describe reach boundaries:	
Mean bankfull channel width (m) (Indicator 4)	**Reach length (m):** 40x width; min 40 m; max 200 m.	**Site photographs**: Enter photo ID or check if completed Top down: _____ Mid down: _____ Mid up: _____ Bottom up: _____
Disturbed or difficult conditions (check all that apply): ☐ Recent flood or debris flow ☐ Stream modifications (e.g., channelization) ☐ Diversions ☐ Discharges ☐ Drought ☐ Vegetation removal/limitations ☐ Other (explain in notes) ☐ None	Notes on disturbances or difficult site conditions:	
Observed hydrology: _____ % of reach with surface flow _____ % of reach with sub-surface or surface flow _____ # of isolated pools	Comments on observed hydrology:	

Site sketch:

1. BMI Score

Collect aquatic invertebrates from at least 6 locations in the assessment reach.

____ BMI score (0-3)	Scoring guidance: 0: (Absent) Total abundance of benthic macroinvertebrates is zero. 1: (Weak) Total abundance is 1 to 3. 2: (Moderate) Total abundance ≥4 3: (Strong) Total abundance ≥10 and richness ≥3 OR Total abundance < 10 and richness ≥5 *Note: Richness is based on family-level identification for aquatic insects and mollusks, order-level for crustaceans and mites, and class or phylum for all other non-insects.*
Taxa/Notes:	

2. Percent Shading

Densiometer readings Record # points covered (out of 17)		
Upper	Middle	Lower
_____ Upstream	_____ Upstream	_____ Upstream
_____ Left	_____ Left	_____ Left
_____ Right	_____ Right	_____ Right
_____ Downstream	_____ Downstream	_____ Downstream
Sum of all readings: _____ Percent Shading = Sum of readings/204 x 100: _____ %		

3. Absence of Rooted Upland Plants in Streambed

____ Absence of Rooted Upland Plants in Streambed score (0-3)	Scoring guidance: 0: Rooted upland plants are prevalent within the streambed (greater than 75%). 1: Rooted upland plants are consistently dispersed throughout the streambed (20 – 75%). 2: Few rooted upland plants are present within the streambed (less than 20%). 3: Rooted upland plants are absent within the streambed. *Note: 'Upland' plants include those with UPL, FACU and FAC indicators as well as those with No Indicator (NI)* *Recommended photos (record in photolog, below):* *1) channel vegetation, and* *2) upland vegetation*
Notes:	

4. Bankfull channel width (copy from first page of field form)

5. Natural Valley

____ Natural Valley score (0-1.5) Half-scores are allowed	Scoring guidance: 0: (Absent) No indication of surrounding land sloping to the valley bottom or stream. Channel located on side slope indicative of an artificial channel or stream relocation/manipulation. 0.5: (Weak) Subtle valley indicated by some of the surrounding land sloping downward to the valley bottom or stream. 1: (Moderate) Defined valley indicated by most of the surrounding land sloping downward to the valley bottom or stream. 1.5: (Strong) Well defined valley indicated by all surrounding land sloping downward to the valley bottom or stream.
Notes:	

6. Channel Slope (to nearest 0.5 percent)

_____%

If multiple sights are needed to cover the entire reach, record each and calculate a weighted average to get channel slope:

1) _____% slope _____% of reach
2) _____% slope _____% of reach
3) _____% slope _____% of reach
4) _____% slope _____% of reach

7. Drainage Area (in square miles, to nearest tenth)

8. Average Precipitation (August, September, October)

PRISM 30-year average precipitation _____

Photo log

Indicate if any other photographs taken during the assessment:

Photo ID	Description

Additional notes about the assessment:

Model Classification:

☐ Ephemeral ☐ Perennial ☐ At least intermittent

☐ Intermittent ☐ Less than perennial ☐ Needs more information

Beta Streamflow Duration Assessment Method – Southeast **General site information**

Project name or number:		
Site code or identifier:	**Assessor(s):**	
Waterway name:		Visit date:
Current weather conditions (check one): ☐ Storm/heavy rain ☐ Steady rain ☐ Intermittent rain ☐ Snowing ☐ Cloudy (___ % cover) ☐ Clear/Sunny	Notes on current or recent weather conditions (e.g., precipitation in previous week):	Coordinates at downstream end (decimal degrees): **Lat (N):** **Long (E):** Datum:
Surrounding land-use within 100 m (check one or two): ☐ Urban/industrial/residential ☐ Agricultural (farmland, crops, vineyards, pasture) ☐ Developed open-space (e.g., golf course) ☐ Forested ☐ Other natural ☐ Other: _____	Describe reach boundaries:	
Mean bankfull channel width (m) (Indicator 4)	**Reach length (m):** 40x width; min 40 m; max 200 m.	**Site photographs**: Enter photo ID or check if completed Top down: _____ Mid down: _____ Mid up: _____ Bottom up: _____
Disturbed or difficult conditions (check all that apply): ☐ Recent flood or debris flow ☐ Stream modifications (e.g., channelization) ☐ Diversions ☐ Discharges ☐ Drought ☐ Vegetation removal/limitations ☐ Other (explain in notes) ☐ None	Notes on disturbances or difficult site conditions:	
Observed hydrology: _____ % of reach with surface flow _____ % of reach with sub-surface or surface flow _____ # of isolated pools	Comments on observed hydrology:	

Site sketch:

1. BMI Score

Collect aquatic invertebrates from at least 6 locations in the assessment reach; use sample for BMI score and total benthic macroinvertebrate abundance score (see indicator #2).

____ BMI score (0-3)	Scoring guidance: 0: (Absent) Total abundance of benthic macroinvertebrates is zero. 1: (Weak) Total abundance is 1 to 3. 2: (Moderate) Total abundance ≥4 3: (Strong) Total abundance ≥10 and richness ≥3 OR Total abundance < 10 and richness ≥5 *Note: Richness is based on family-level identification for aquatic insects and mollusks, order-level for crustaceans and mites, and class or phylum for all other non-insects.*
Taxa/Notes:	

2. Total Benthic Macroinvertebrate Abundance

____ Total Benthic Macroinvertebrate Abundance score (0-3)	Scoring guidance: 0: (Absent) Total abundance of benthic macroinvertebrates is zero 1: (Weak) Total abundance is ≥1 and ≤10 2: (Moderate) Total abundance ≥11 and ≤32 3: (Strong) Total abundance ≥33
Notes:	

3. Absence of Rooted Upland Plants in Streambed

____ Absence of Rooted Upland Plants in Streambed score (0-3)	Scoring guidance: 0: Rooted upland plants are prevalent within the streambed (greater than 75%). 1: Rooted upland plants are consistently dispersed throughout the streambed (20 – 75%). 2: Few rooted upland plants are present within the streambed (less than 20%). 3: Rooted upland plants are absent within the streambed. *Note: 'Upland' plants include those with UPL, FACU and FAC indicators as well as those with No Indicator (NI)* *Recommended photos (record in photolog, below):* *1) channel vegetation, and* *2) upland vegetation*
Notes:	

4. Bankfull channel width (copy from first page of field form)

5. Particle Size of Stream Substrate

____ Particle Size or Stream Substrate Sorting score (0-3) Half-scores are allowed	Scoring guidance: 0: (Absent) The channel is poorly developed, very little to no coarse sediment is present. There is no difference between particle size in the stream substrate and adjacent land. 1: (Weak) The channel is poorly developed through the soil profile. Some coarse sediment is present in the streambed but is discontinuous. Particle size differs little between the stream substrate and adjacent land. 2: (Moderate) There is a well-developed channel, but it is not deeply incised through the soil profile. Some coarse sediment is present in the streambed in a continuous layer. Particle size differs somewhat between the stream substrate and adjacent land. 3: (Strong) The channel is well-developed through the soil profile with relatively coarse streambed sediments compared to the riparian zone soils: coarse sand, gravel, or cobbles in the piedmont; cobbles or boulders in the mountains, and medium or coarse sand in the coastal plain. Particle size differs greatly between the stream substrate and adjacent land.
Notes:	

6. Drainage Area (in square miles, to nearest tenth)

7. Average Precipitation (May, June, July)

PRISM 30-year average precipitation _____

Photo log

Indicate if any other photographs taken during the assessment:

Photo ID	Description

Additional notes about the assessment:

Model Classification:

- ☐ Ephemeral
- ☐ Intermittent
- ☐ Perennial
- ☐ Less than perennial
- ☐ At least intermittent
- ☐ Needs More Information