MBSS Round 4
Facies Mapping Protocols

Why Geomorph in Round 4?

- Compare across sites
- Investigate relationships between physical stream channel measurements and biological condition (e.g. IBI score, species distribution)
- Help understand how restoration could be improved
- Emulate Infante et al., 2006 – they found significant relationships between channel shape metrics and fish community metrics

What is proposed?

- Facies mapping – Spring Index Period
- Riffle cross-section – Summer Index Period
- Riffle pebble count – Summer Index Period

Facies Mapping

- Break segment into 6 bins
  - 0m-25m (midpoint to right bank, midpoint to left bank)
  - 25m-50m (midpoint to right bank, midpoint to left bank)
  - 50m-75m (midpoint to right bank, midpoint to left bank)
- Record dominant (by area) and sub-dominant particle size in each bin


25m
0m

Facies Mapping con't

- Record the dominant velocity category (slow, <0.3 m/s; fast, >0.3 m/s)
- Record the depth category

  (shallow, <0.5m; moderately deep, 0.5m – 1.0m; deep, >1.0m)

v. 2014

MBSS SPRING FACIES MAP DATA SHEET

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SITE — Watershed Code ☐☐☐☐ Segment ☐☐☐ Type ☐ Year ☐☐☐☐

Reviewer: First _____ / Second _____

DATE — Year ☐☐ Month ☐☐ Day ☐☐

	L	Center	R
75m	Dominant Substrate ☐ Subdominant Substrate ☐ Depth ☐ Velocity ☐		Dominant Substrate ☐ Subdominant Substrate ☐ Depth ☐ Velocity ☐
50m	Dominant Substrate ☐ Subdominant Substrate ☐ Depth ☐ Velocity ☐		Dominant Substrate ☐ Subdominant Substrate ☐ Depth ☐ Velocity ☐
25m	Dominant Substrate ☐ Subdominant Substrate ☐ Depth ☐ Velocity ☐		Dominant Substrate ☐ Subdominant Substrate ☐ Depth ☐ Velocity ☐
0m			

Classifications for **Dominant** and **Subdominant Substrate** Categories

Y = Silt/Clay (< .062mm)
S = Sand (.062 - 2mm)
G = Gravel (2 - 64mm)
C = Cobble (64 - 256mm)
B = Boulder (256-4096mm)
K = Bedrock (> 4096mm)

Classifications for Average Stream **Depth** Categories

1 = Shallow (< 0.5 m)
2 = Moderately Deep (0.5 m - 1.0 m)
3 = Deep (> 1.0 m)

Classifications for Average Stream **Velocity** Categories

1 = Slow (0-0.3 m/s)
2 = Fast (> 0.3 m/s)

COMMENTS

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