

Stream Risk Classification Methodology for Hydromodification Mapping Field Requirements

GroupID:
X-Sec #: <i>Upstream of Development</i> <i>6002 #D</i>
Comment:
Pictures: <i>Yes</i>

Calculations are based on the West Consultants Inc. Method.

Necessary Input Data:

Cross-section survey, roughness coefficients (main channel/overbanks), channel slope, valley width, channel width, sediment samples for gradation curve (1-3 ft below the surface), soil properties, bank conditions, streambed conditions.

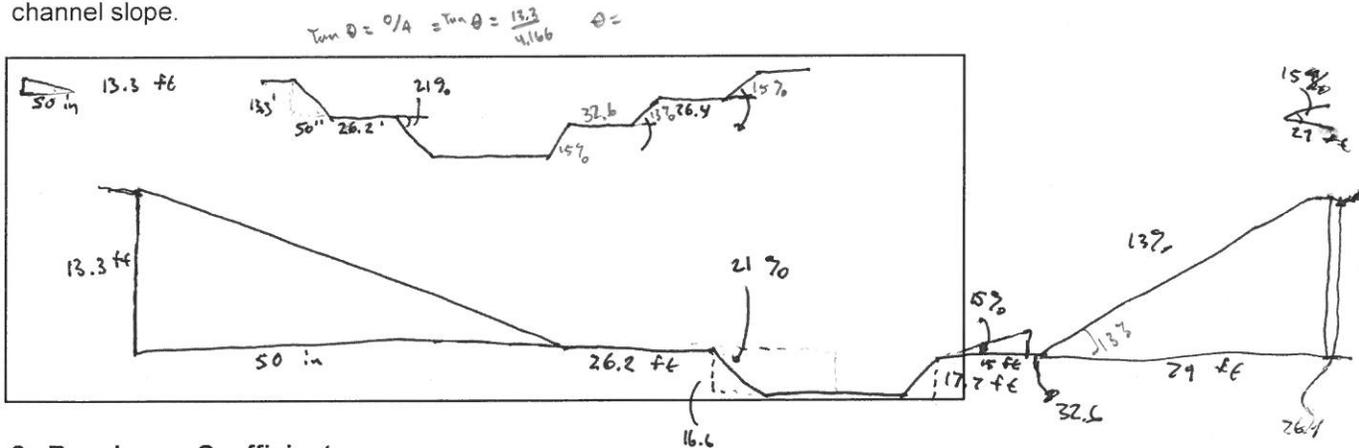
Note: Left and Right banks are based on the assumption that the surveyor is looking downstream.

1. Cross-section survey:

Conduct a survey of the channel cross-section and draw approximate geometry in space provided below. Mark each point of the survey.

SOA	0/A	SOH	0/H
CAH	0/H	CAH	0/H
TOH	0/H	TOA	0/A

Take a survey point ~300 ft u/s or d/s of cross-section to determine approximate channel slope.



2. Roughness Coefficient:

1. Right Overbank
2. Right Bank
3. Channel Bottom
4. Left Bank
5. Left Overbank

0.02	0.02
0.025	0.025
0.04	0.04
0.025	0.03
0.025	0.025

3. Soil Sample:

1. Grab approximately 1 gallon of soil from 1-3 ft below the channel bottom. Place in zip-lock bag and then double bag. soil <
2. Estimated D₅₀:

Sandy silt

4. Bank Conditions:

1. Bedrock (yes or no)
2. Bank Protection (Good or Bad Condition)
3. Vegetation (Dense or Sparse/None)
If yes, % Vegetation
4. Stratification (yes or no)
5. Bank Erosion (yes or no)
6. Toe Erosion (yes or no)

No
Yes Good / Vegetation
Dense / Medium

No
No
No

5. Streambed Conditions:

1. Braided (yes or no)
2. Armored (yes or no)
3. Bedrock (yes or no)

4. Headcuts (yes or no)
5. Degradation (< 1 ft or > 1 ft)
6. D/S Hardpoint (yes or no)
7. Sediment Source (yes or no)

No
No
No

No
< 1ft / None
No
No

7. Site Notes and Observations:

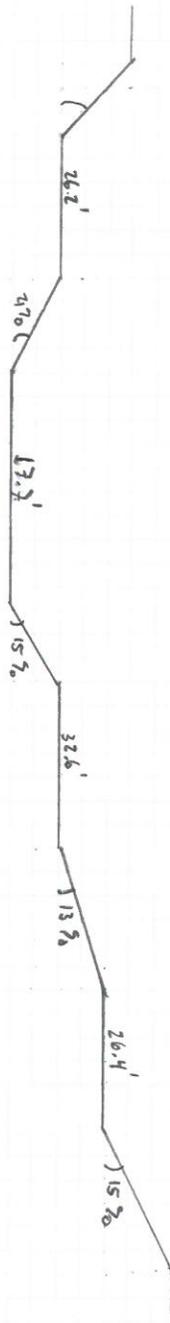
JOB NAME _____

JOB NO. _____

SHEET NO. _____ OF _____

DESIGNED BY _____ DATE _____

CHECKED BY _____ DATE _____



Stream Risk Classification Methodology for Hydromodification Mapping Field Requirements

GroupID:
X-Sec #: <i>Up-stream Development</i>
<i>#2</i>
Comment:
Pictures:

Calculations are based on the West Consultants Inc. Method.

Necessary Input Data:

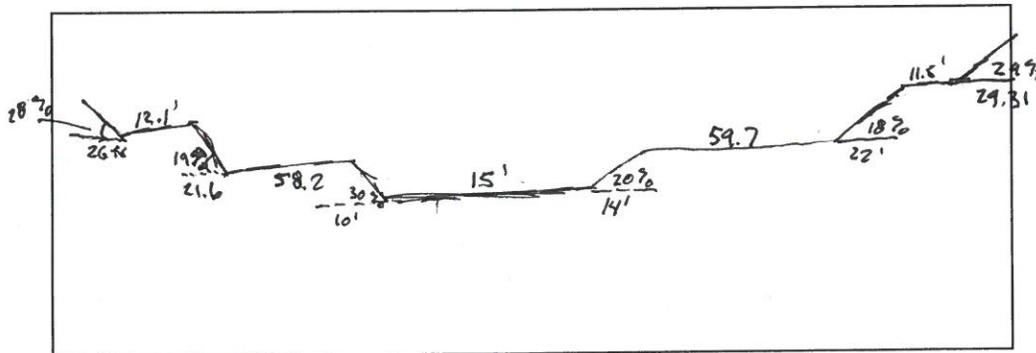
Cross-section survey, roughness coefficients (main channel/overbanks), channel slope, valley width, channel width, sediment samples for gradation curve (1-3 ft below the surface), soil properties, bank conditions, streambed conditions.

Note: Left and Right banks are based on the assumption that the surveyor is looking downstream.

1. Cross-section survey:

Conduct a survey of the channel cross-section and draw approximate geometry in space provided below. Mark each point of the survey.

Take a survey point ~300 ft u/s or d/s of cross-section to determine approximate channel slope.



2. Roughness Coefficient:

1. Right Overbank
2. Right Bank
3. Channel Bottom
4. Left Bank
5. Left Overbank

0.825 0.03
0.025 0.025
0.02
0.025
0.025 0.03

3. Soil Sample:

1. Grab approximately 1 gallon of soil from 1-3 ft below the channel bottom. Place in zip-lock bag and then double bag.
2. Estimated D₅₀:

Silt & Sand ← Quarter

4. Bank Conditions:

1. Bedrock (yes or no)
2. Bank Protection (Good or Bad Condition)
3. Vegetation (Dense or Sparse/None)
If yes, % Vegetation
4. Stratification (yes or no)
5. Bank Erosion (yes or no)
6. Toe Erosion (yes or no)

No
No
Dense
No
No
No

5. Streambed Conditions:

1. Braided (yes or no)
2. Armored (yes or no)
3. Bedrock (yes or no)

4. Headcuts (yes or no)
5. Degradation (< 1 ft or > 1 ft)
6. D/S Hardpoint (yes or no)
7. Sediment Source (yes or no)

No
No
No

No
No
Yes
No

7. Site Notes and Observations:

(Protected from development)

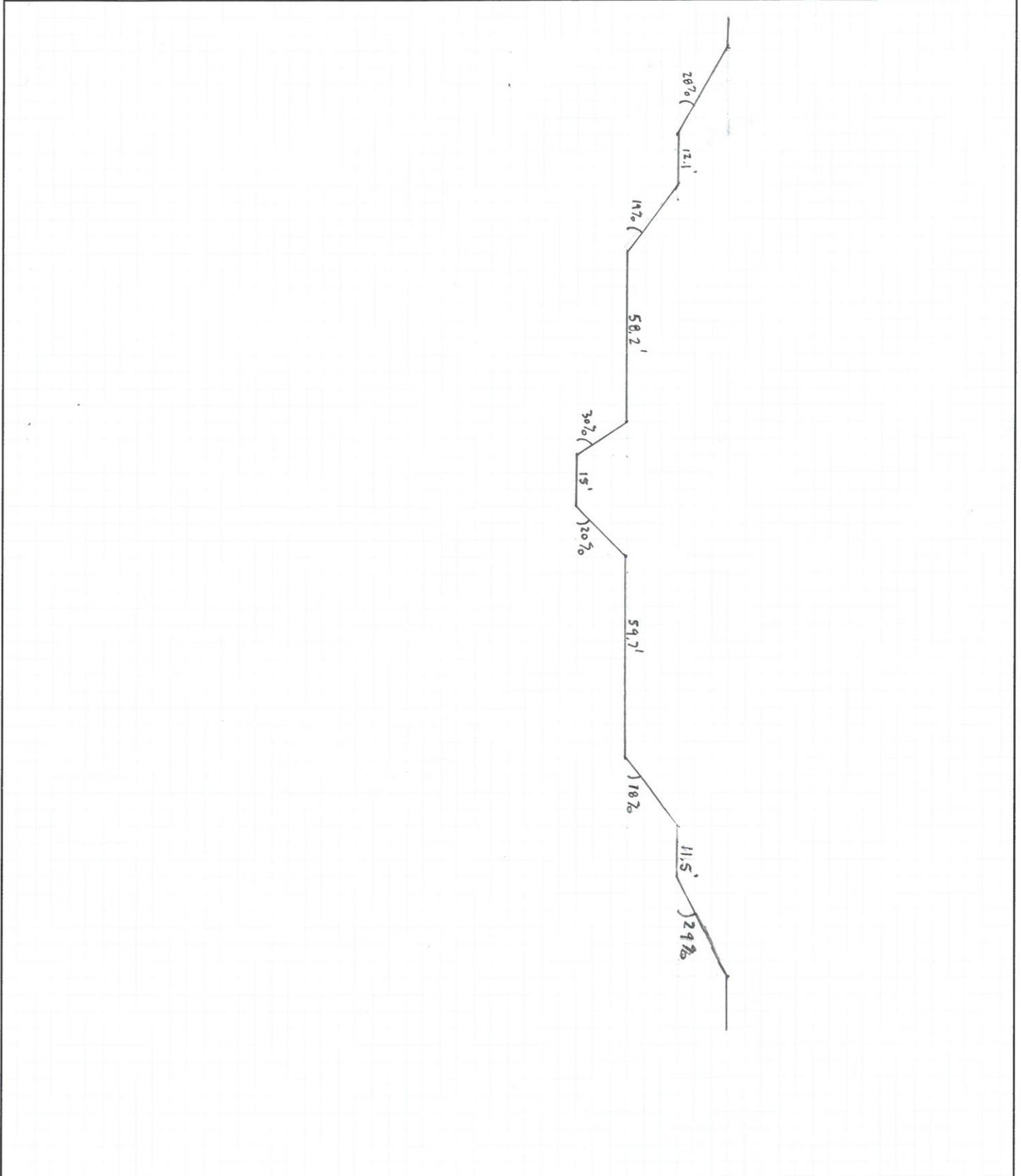
JOB NAME _____

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Stream Risk Classification Methodology for Hydromodification Mapping Field Requirements

GroupID:
X-Sec #: <i>Down-stream</i>
<i>3</i>
Comment:
Pictures:

Calculations are based on the West Consultants Inc. Method.

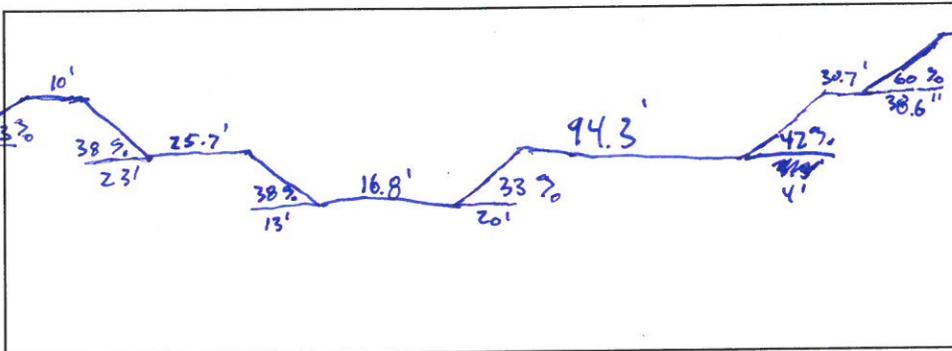
Necessary Input Data:

Cross-section survey, roughness coefficients (main channel/overbanks), channel slope, valley width, channel width, sediment samples for gradation curve (1-3 below the surface), soil properties, bank conditions, streambed conditions.
 Note: Left and Right banks are based on the assumption that the surveyor is looking downstream.

1. Cross-section survey:

Conduct a survey of the channel cross-section and draw approximate geometry in space provided below. Mark each point of the survey.

Take a survey point ~300 ft u/s or d/s of cross-section to determine approximate channel slope.



2. Roughness Coefficient:

- | | |
|-------------------|--------------|
| 1. Right Overbank | <u>0.03</u> |
| 2. Right Bank | <u>0.035</u> |
| 3. Channel Bottom | <u>0.04</u> |
| 4. Left Bank | <u>0.03</u> |
| 5. Left Overbank | <u>0.03</u> |

3. Soil Sample:

1. Grab approximately 1 gallon of soil from 1-3 ft below the channel bottom. Place in zip-lock bag and then double bag. _____
2. Estimated D₅₀: _____

4. Bank Conditions:

1. Bedrock (yes or no) Yes (Minimal)
2. Bank Protection (Good or Bad Condition) None
3. Vegetation (Dense or Sparse/None) Dense
If yes, % Vegetation _____
4. Stratification (yes or no) No
5. Bank Erosion (yes or no) No
6. Toe Erosion (yes or no) Yes

5. Streambed Conditions:

1. Braided (yes or no) Yes
2. Armored (yes or no) No
3. Bedrock (yes or no) Yes (Minimal)
4. Headcuts (yes or no) No
5. Degradation (< 1 ft or > 1 ft) <1'
6. D/S Hardpoint (yes or no) No
7. Sediment Source (yes or no) Yes

7. Site Notes and Observations:

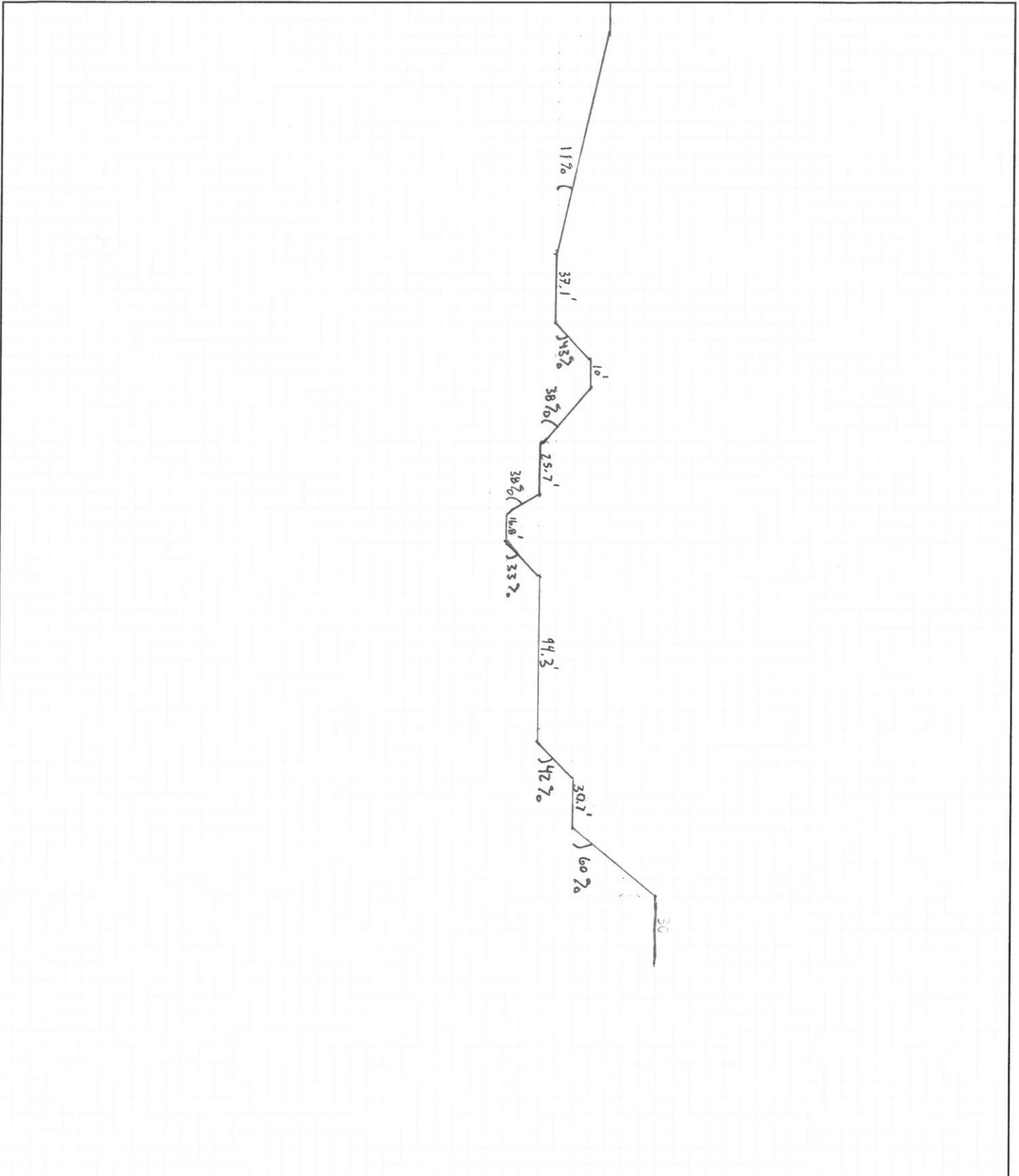
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Pebble Count Data Sheet

Size categories	Size ranges (mm)	Tallies (counts)	Stations
Silt/clay	< 0.06		1
Very fine sand	0.06 – 0.125		
Fine sand	0.126 – 0.25		2
Medium sand	0.26 – 0.5		
Coarse sand	0.5 – 1		3
Very coarse sand	1 - 2		
Very fine gravel	2 - 4		4
Fine gravel	5 - 8		
Medium gravel	9 - 16		5
Coarse gravel	17 - 32		
Very coarse gravel	33 - 64		6
Small cobble	65 - 90		
Medium cobble	91 - 128	⚡	7
Large cobble	129 - 180		
Very large cobble	181 - 255		
Small boulder	256 - 512		8
Medium boulder	513 - 1024		
Large boulder	1025 – 2048		9
Very large boulder	> 2048		
Bedrock	Large unbroken rock surface		10
Woody debris	Leaves, sticks etc.		

Enter the tape positions

Indicate the method used below

Total count

25

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Zigzag
 % Habitat
 Transects (Enter your tape position)

% Channel features (Estimate)

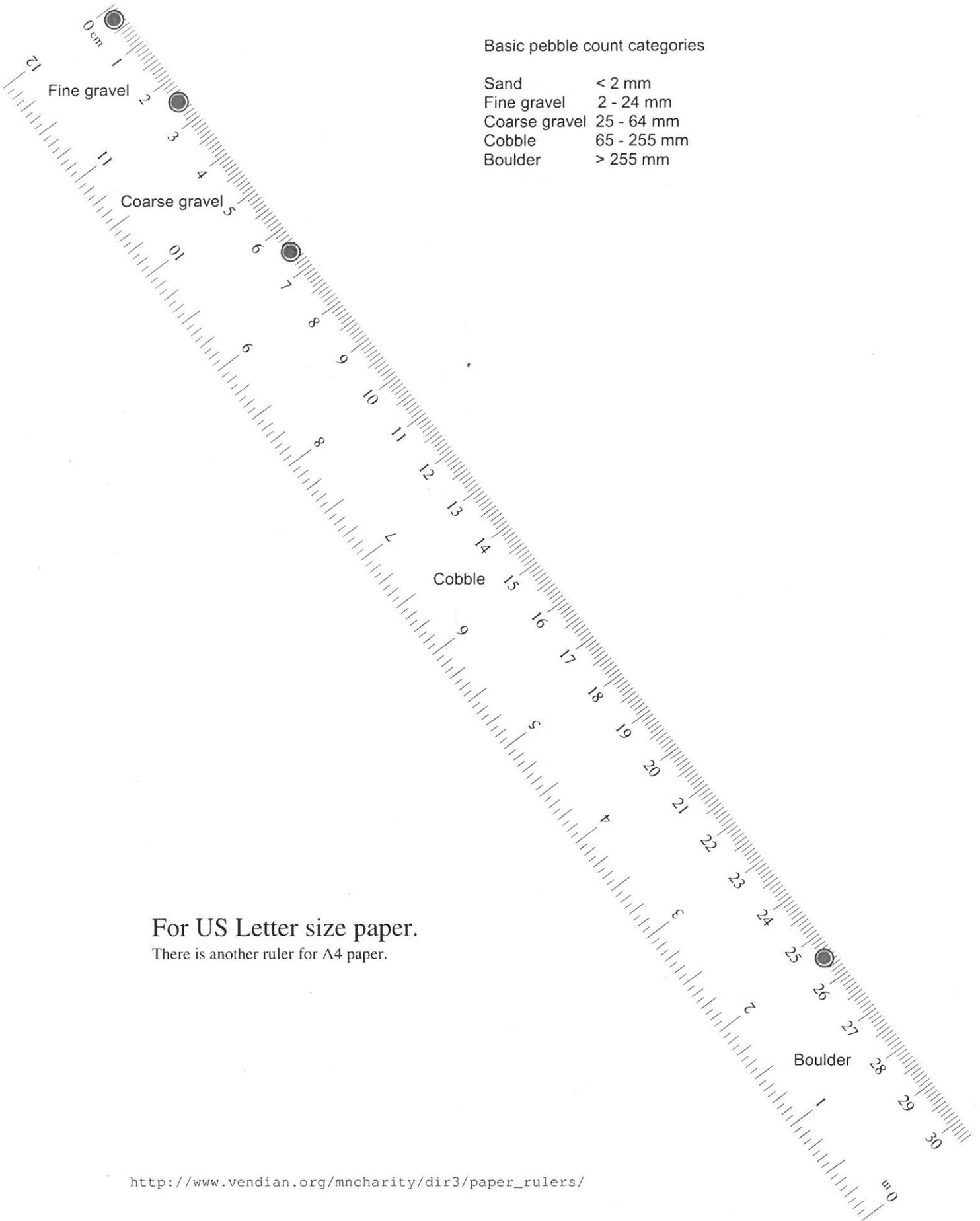
Riffles Runs Pools

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Note: The broad categories are shaded and the text is **bold**. If you use only the broad categories from the level-one survey data sheet enter your tallies here.

Basic pebble count categories

Sand	< 2 mm
Fine gravel	2 - 24 mm
Coarse gravel	25 - 64 mm
Cobble	65 - 255 mm
Boulder	> 255 mm



For US Letter size paper.

There is another ruler for A4 paper.