



# Mock Debate TN SQT vs. Ratio Crediting

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Adam Spiller & Josh Sitz

RISE TO THE  
**CHALLENGE**

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# SQT Roll Up Scoring

Functional Category	Function-Based Parameters	Measurement Method	Category
Hydrology	Catchment Hydrology	Watershed Land Use Runoff Score	0.20
	Reach Runoff	Stormwater Infiltration	
Hydraulics	Floodplain Connectivity	Bank Height Ratio Entrenchment Ratio	0.20
Geomorphology	Large Woody Debris	Large Woody Debris Index # Pieces	0.20
	Lateral Migration	Erosion Rate (ft/yr) Dominant BEHI/NBS Percent Streambank Erosion (%) Percent Armoring (%)	
	Riparian Vegetation	Left - Average Diameter at Breast Height (DBH; in) Right - Average DBH (in) Left - Buffer Width (feet) Right - Buffer Width (feet) Left - Tree Density (#/acre) Right - Tree Density (#/acre) Left - Native Herbaceous Cover (%) Right - Native Herbaceous Cover (%) Left - Native Shrub Cover (%) Right - Native Shrub Cover (%)	
	Bed Material Characterization	Size Class Pebble Count Analyzer (p-value)	
	Bed Form Diversity	Pool Spacing Ratio Pool Depth Ratio Percent Riffle (%) Aggradation Ratio	
	Plan Form	Sinuosity	
Physicochemical	Bacteria	E. Coli (Cfu/100 mL)	0.20
	Organic Enrichment	Percent Nutrient Tolerant Macroinvertebrates (%)	
	Nitrogen	Nitrate-Nitrite (mg/L)	
	Phosphorus	Total Phosphorus (mg/L)	
Biology	Macroinvertebrates	Tennessee Macroinvertebrate Index Percent Clingers (%) Percent EPT - Cheumatopsyche (%) Percent Oligochaeta and Chironomidae (%)	0.20
	Fish	Native Fish Score Index Catch per Unit Effort Score	

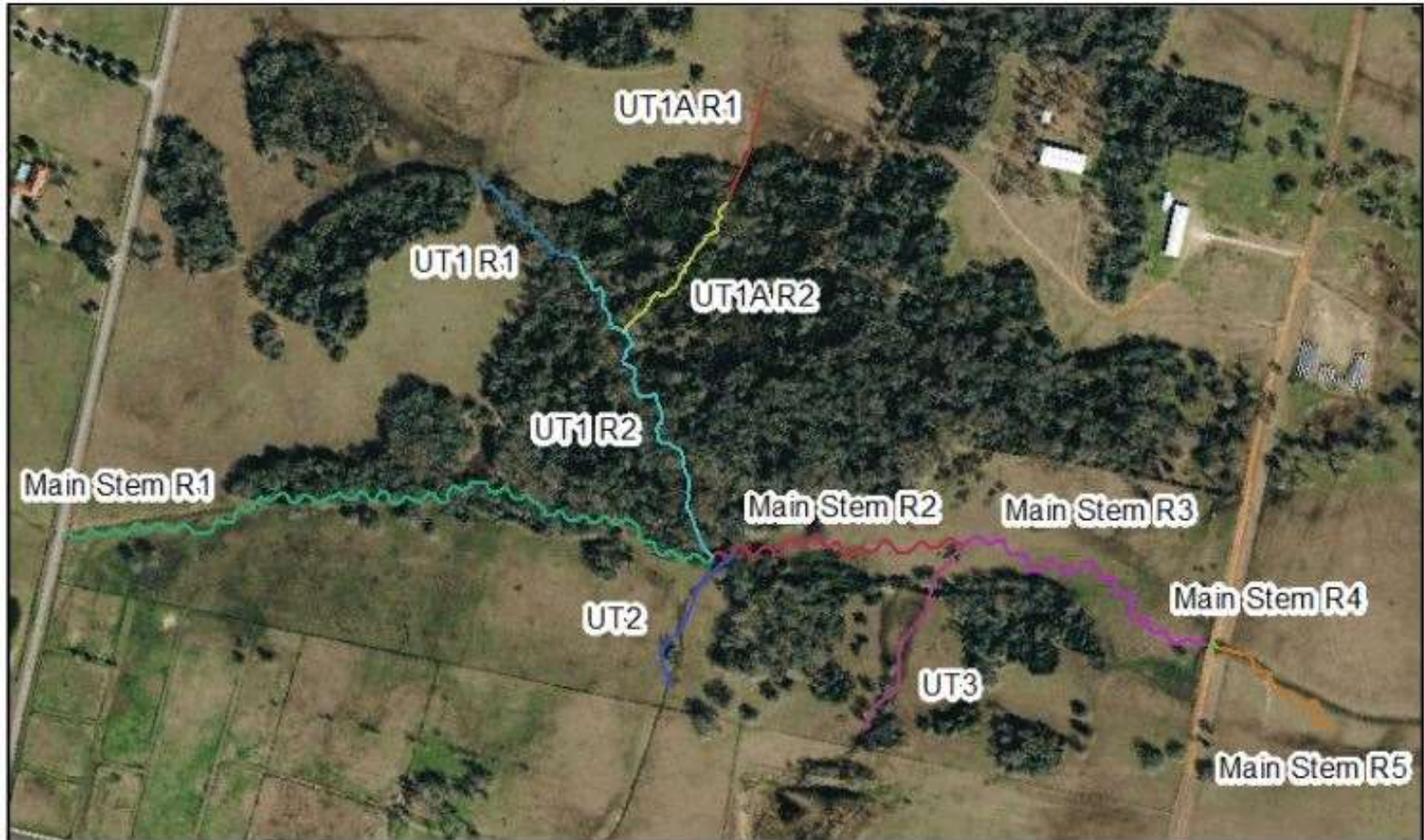
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# SQT Subjectivity – Bankfull Identification and Reach Breaks

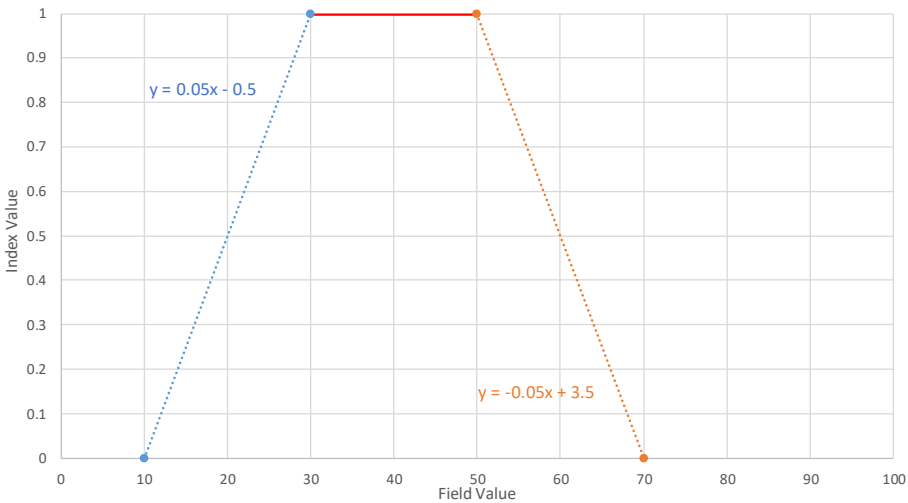


Source: TN SQT Data Collection and Analysis Manual

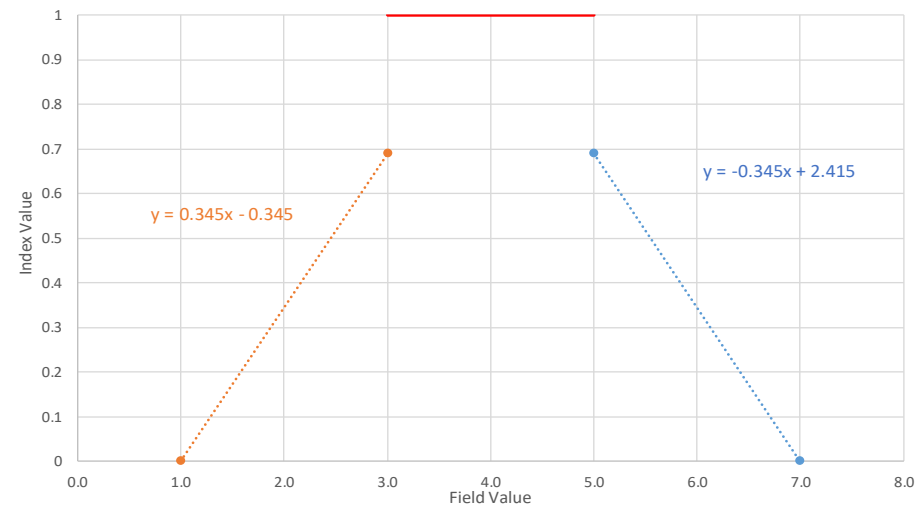


# SQT Reference Standards & Design “Targets”

Percent Riffle for Ecoregion 71, 68 & 69



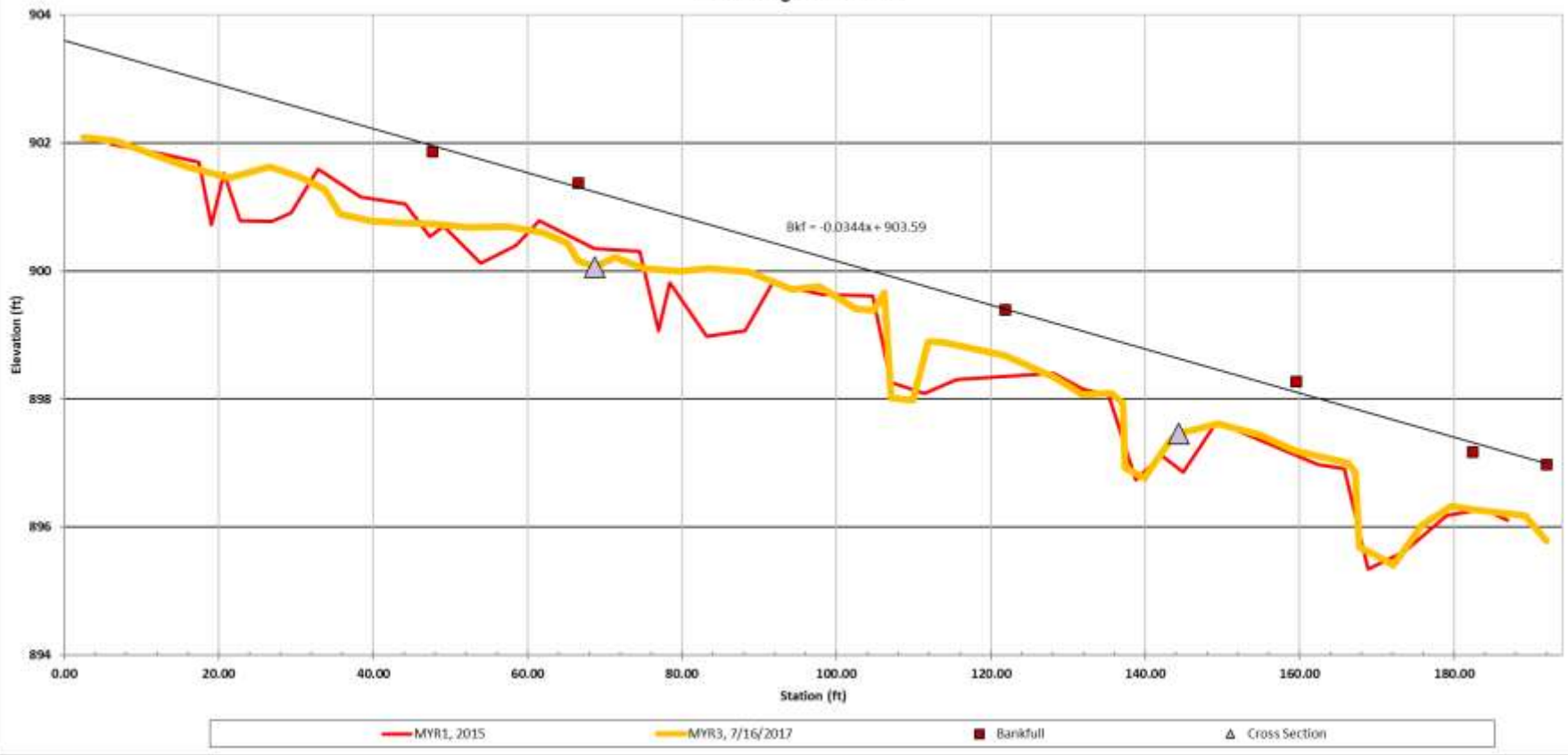
Pool Spacing Ratio for Slope <=2%



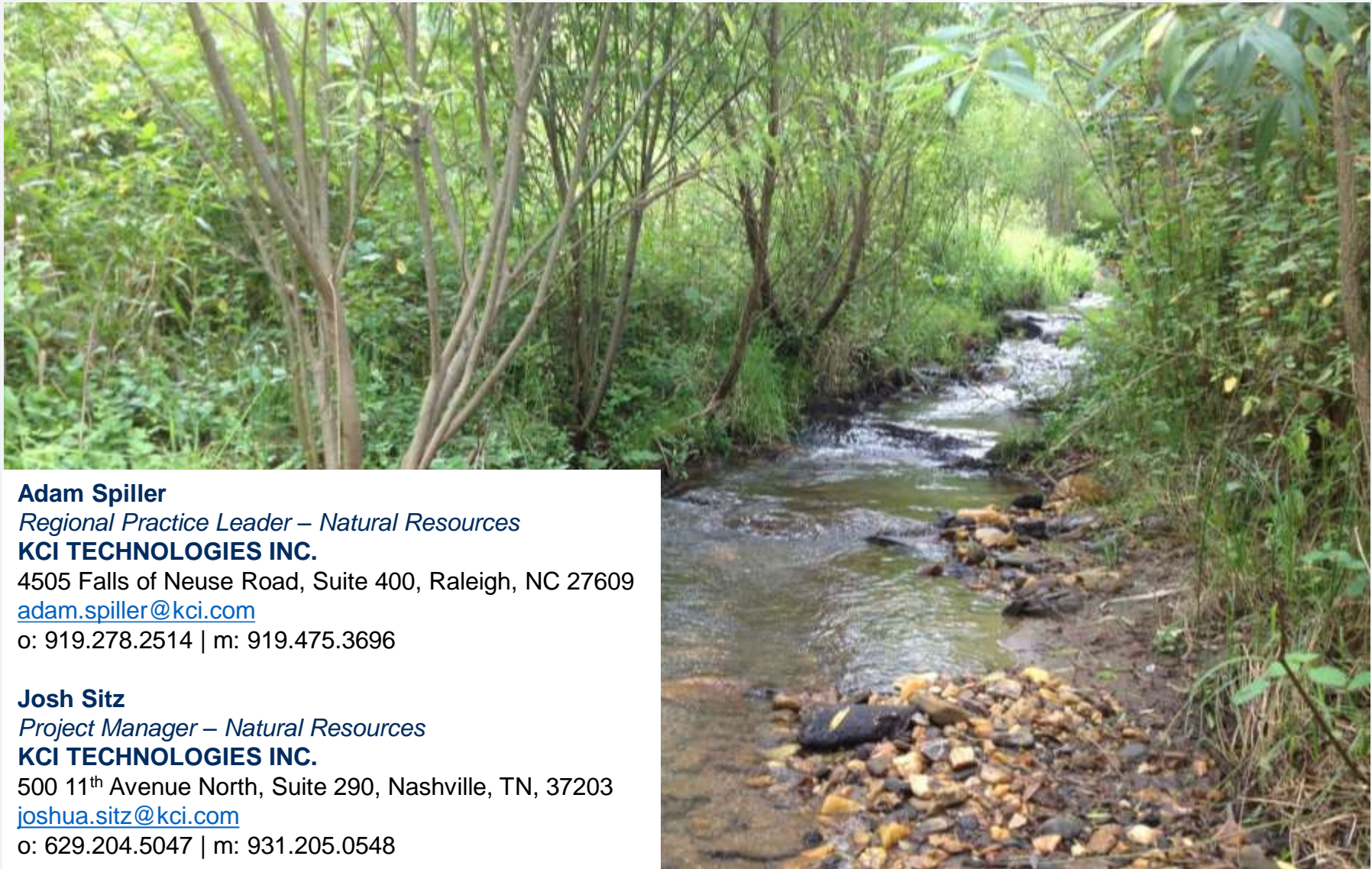




Longitudinal Profile  
UT4  
Monitoring Year 3 - 2017



# Thank you!



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