SUPPLEMENTARY MATERIAL

Addressing sedimentation issues: Modelling the rating curve and river sediment transport using HEC-RAS 6.1 application

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Table S1. The summary of mass density test results

Sample location		Density of soil	Average density of soil	Sediment concentration
		($g \cdot cm^{-3}$)		($mg \cdot dm^{-3}$)
Upstream (RS 346)	left	2,604	2,579	21
	middle	2,603		26
	right	2,530		32
Midstream (RS 270)	left	2,573	2,560	27
	middle	2,575		28
	right	2,531		28
Downstream (RS 209)	left	2,295	2,368	11
	middle	2,575		9
	right	2,235		14

Source: own study.

Table S2. The summary of shear stress calculation (τ_0) and critical stress (τ_c)

Sample location	τ_0 ($N \cdot m^{-2}$)	τ_c ($N \cdot m^{-2}$)	Interpretation
Upstream sample	7.13	1.666	$\tau_0 > \tau_c$
Midstream sample	13.30	1.568	$\tau_0 > \tau_c$
Downstream sample	4.71	0.7938	$\tau_0 > \tau_c$

Source: own study.

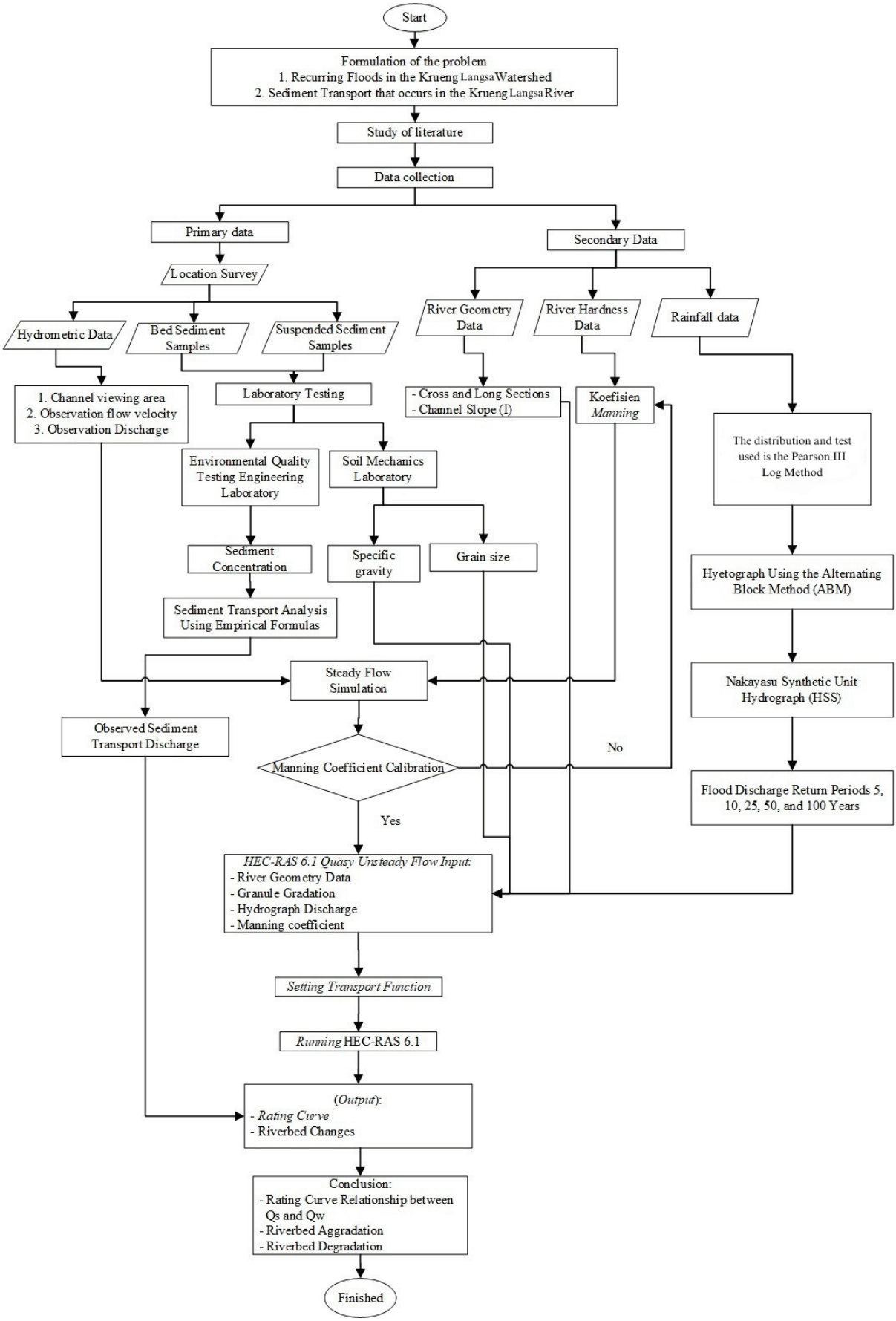

Fig. S1. Methodology flowchart; Q_w = water discharge, Q_s = sediment discharge; source: own study

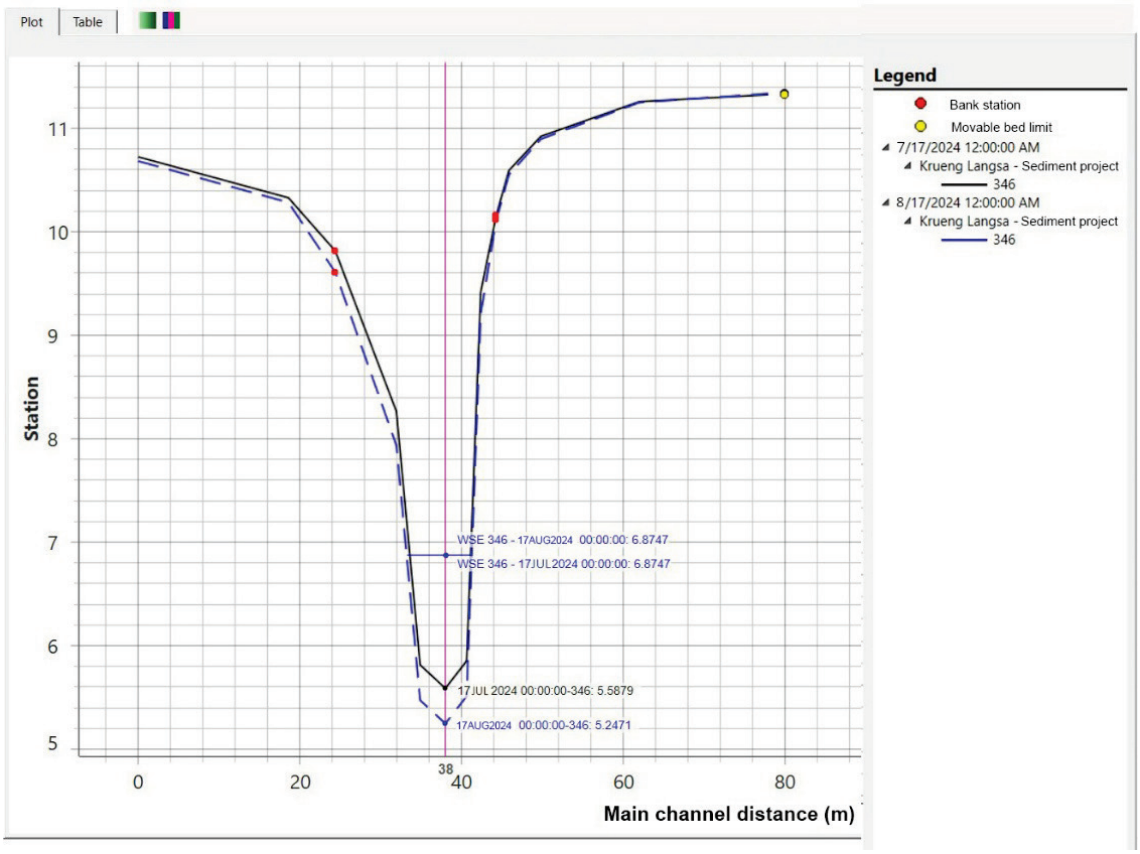

Fig. S2. River profile due to degradation RS 346 (upstream); WSE = water surface elevation; source: own study

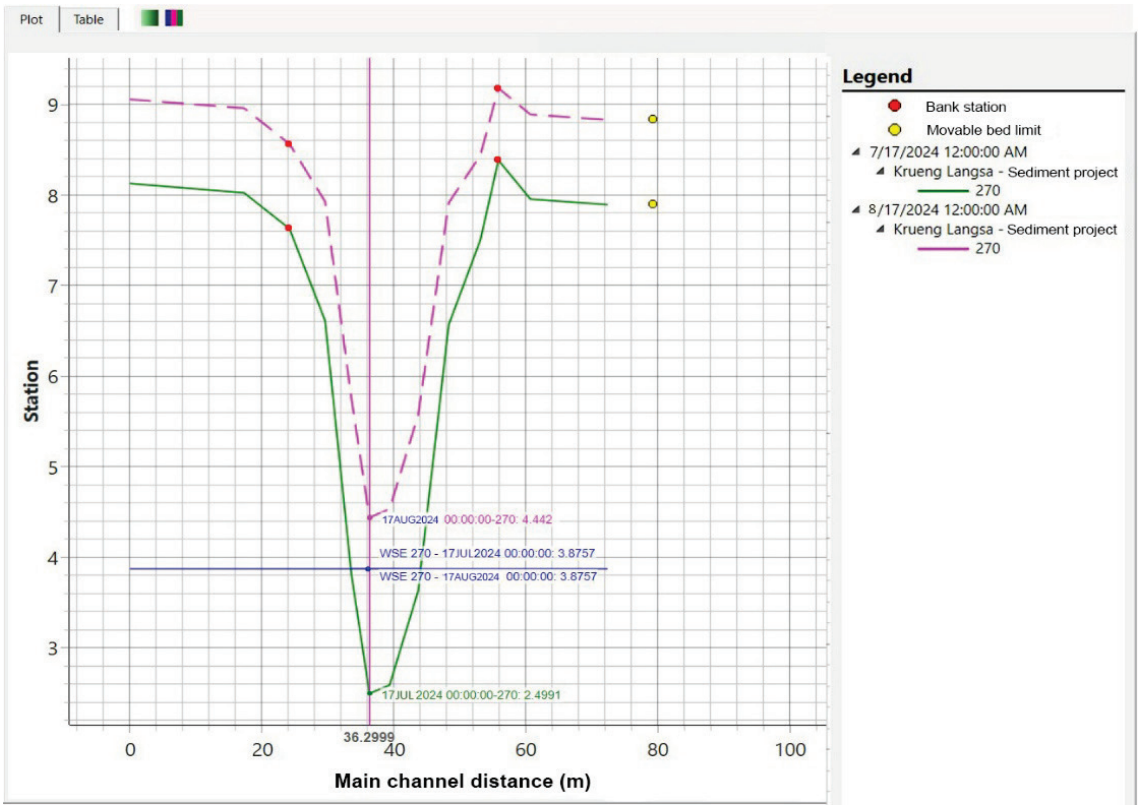

Fig. S3. River profile due to aggradation RS 270 (midstream); WSE as in Fig. 2; source: own study

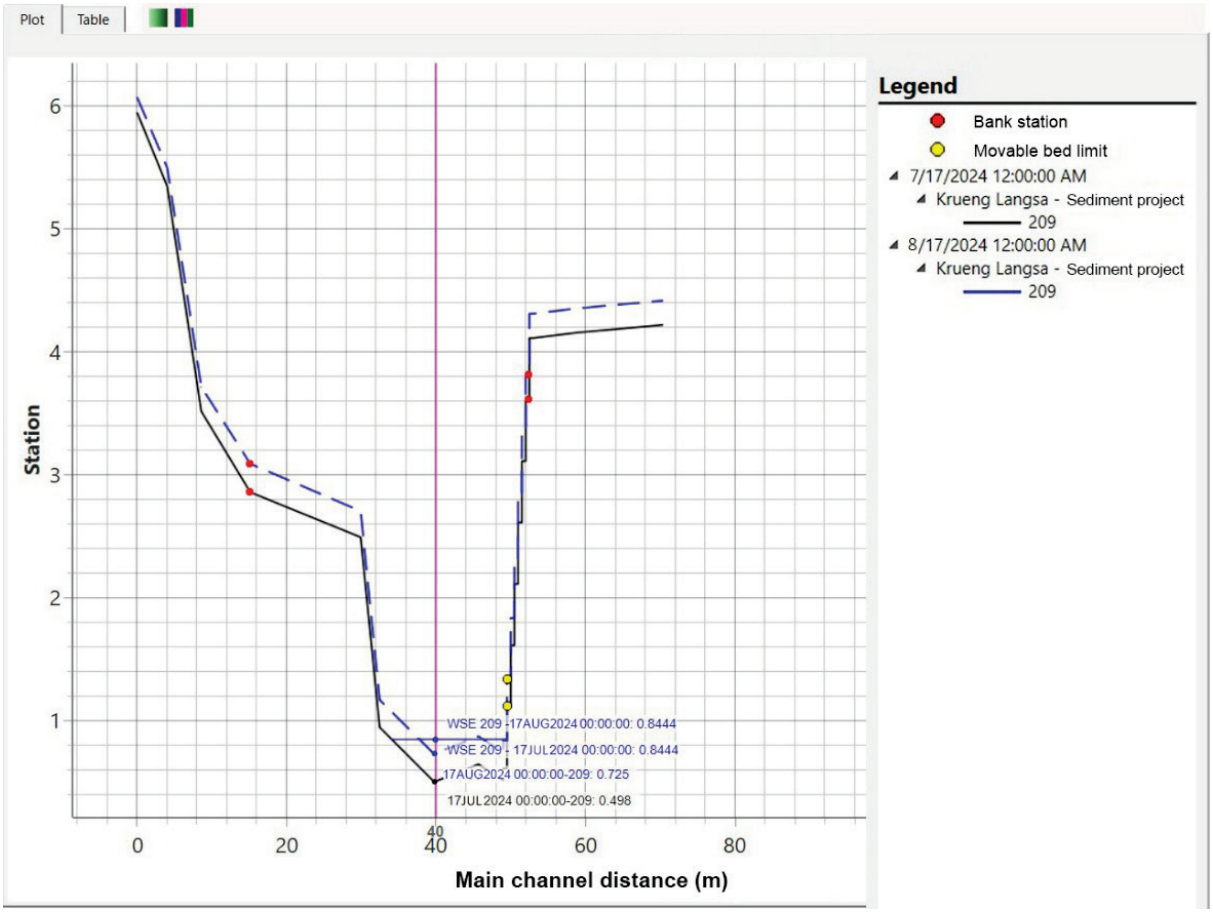

Fig. S4. River profile due to aggradation RS 209 (downstream); WSE as in Fig. S2; source: own study

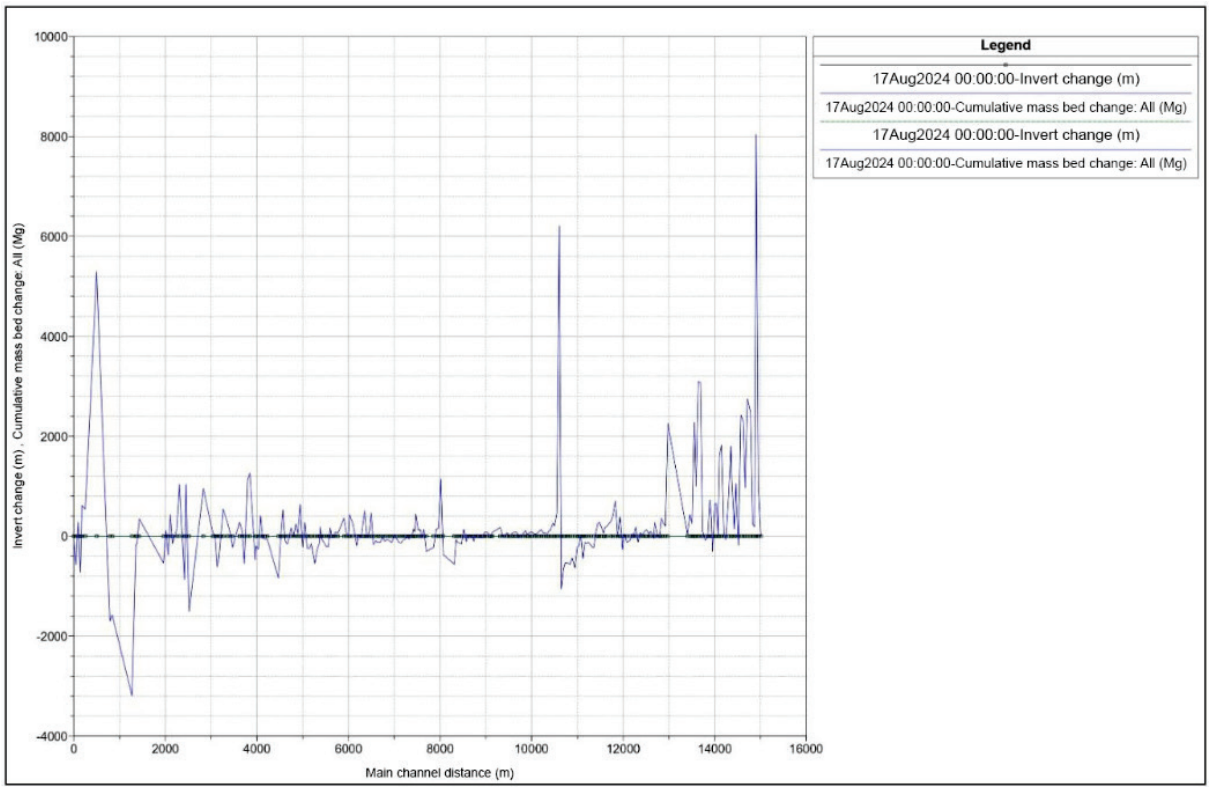

Fig. S5. Volume of aggradation and degradation that occurs in the entire river; source: own study