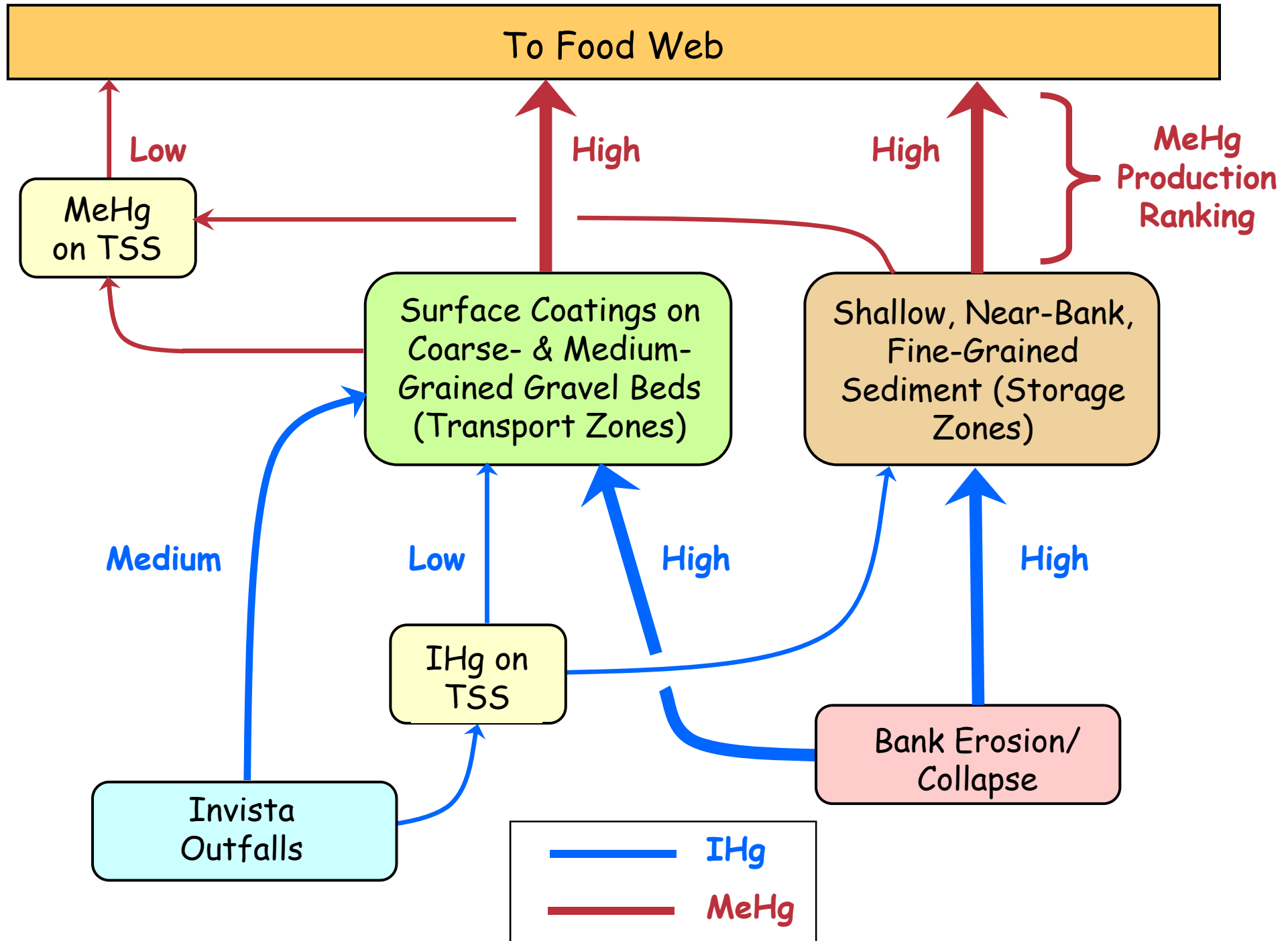


Sources of FIHg and Hg_R Feeding Methylation in the South River

Source	Primary Processes	Source Type	Importance to Methylation (initial assessment)
Bank erosion/collapse (includes exposed HRADs)	resuspension/deposition, adsorption/desorption, oxidation/reduction	1°	H
Shallow, near-bank, fine-grained sediment	adsorption/desorption, methylation, diffusion, advection, resuspension/deposition	2°	H
Coarse- & medium-grained gravel beds	adsorption/desorption, methylation, diffusion, advection, hyporheic flow	2°	H
Invista outfalls	deposition, adsorption/desorption, volatilization, oxidation/reduction	1°	M
River input (upstream of Invista plant)	resuspension/deposition, adsorption/desorption, demethylation	1°	L
Floodplain soil (ex. banks)	surface runoff, methylation/demethylation, oxidation/reduction	1°	L
Direct precipitation	infiltration + interflow	1°	L
Deeper, buried sediment	resuspension	2°	L
Interflow/GW advection through river banks	diffusion, advection	2°	L
TSS	adsorption/desorption, resuspension/deposition, oxidation/reduction	2°	L
Tributaries and millraces	resuspension/deposition, adsorption/desorption, methylation/demethylation	2°	L
Contaminated GW at source	diffusion, advection	2°	L?

IHg Sources Feeding MeHg Production in South River



Production Compartments for MeHg in the South River

Production Compartment	Biological Ranking as Food Source *	MeHg Production Ranking *
Surface coatings on coarse- & medium-grained gravel beds	H	H
Shallow, near-bank, fine-grained sediment	M	H
TSS	H	L
Water column colloids	L	N/A
Upstream river input	L	L
Gravel/cobble areas	L	M
Banks	L	L
Floodplain	L	L
Invista outfalls	N/A	L
Tributaries and millraces	L	L

* Note: H, M, L rankings are based on collective experience of task team

Simplified Food Web for the South River

Terrestrial

Aquatic

