

We need more than water: Sediment limitation requires local restoration

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Effects of sediment starvation are probably permanent, irreversible and will likely continue. Main downstream channel will continue to enlarge and coarsen, but spatial and time limits are uncertain, evolution towards a single dominant channel between EBC dam and Cumberland House is speeding up due to sediment starvation. Enlarged channels have larger flow capacities and will result in fewer and smaller overbank floods to replenish wetlands. Undercutting by main channels will hasten abandonment of smaller distributary channels that connect to wetlands. Sediment sequestration (dams) + less flooding will continue to starve wetlands of nutrient-bearing suspended sediment. Eventual outcome – gradual degradation and destruction of upper SRD wetland ecosystem. Fate of lower SRD is less clear due to greater distance of EBC and influence of Cedar Lake. Local people within the delta are beginning to implement active restoration within the delta such as channel clearing, use of fire for regeneration and wetland connectivity, and log jam prevention.