

Appendix E. Sauk River Habitat Protection and Restoration Plan - Draft Ratings of Restoration Project Concepts

v11.29.2023																
Sauk Concept Category	Project Number	Project Name	Rivermile	Reach # and Rest'n Priority	Habitat Strategy	Strategy Rating	Est. Channel Length (ft)	Channel Benefit Rating	Est. Floodplain Area (ac)	Floodplain Benefit Rating	Land-owners Impacted	Public or Private Landowners	Community Impacts	Relative Cost	Short or Long-Term Timeframe to Start	Description & Notes
	1	McLeod Slough Tributary Floodplain	RM0	10	4	Medium	1500	Medium	5	Low	3	Both	Low	Medium	Long	Concrete Sauk Valley RD @ Finney Creek RD blocks CMZ and flood inundation backwater. Site of 1990's culvert replacement. Assumes new bridge. Flood and channel inundation depends on flows; none at modeled 2yr flow but stream and backwater expected. 100yr flood inundation model shows much larger water spread even east of Kinley RD, so larger area potentially affected and more landowners than estimated. No CMZ functions.
	2	McLeod Slough Wetlands	RM0	10	5, 9	Low	1750	Medium	10	Low	1	Public	Low	Medium	Short	Connect existing wetlands and low areas to McLeod Slough and Creek via excavated channel for backwater habitat. Modeled 2yr flow inundates up to 3 acres. Estimate between 1000 and 2500' of channel and 10 acres depending on flow/season. Purchased for SCL Wildlife lands.
High	3	SR530 Confluence Sloughs	RM0-2	10	2, 4, 5, 8	High	?	High	?	High	?	Both	High or Low?	High	Long	SR530 embankment from Martin RD to Illabot Creek RD isolates slough and floodplain connectivity. No effort applied to scoping this. First priority is ensure slough connectivity and flood control.
High	4	Lower Sauk RB Floodplain Remediation 1	RM2	10	4, 5, 6b, 8	High	4000	High	57	High	~5 to 10	Both	Medium	Low	Short	One established building site and gravel access road, appears to be one berm in floodplain RB. Limited side channel and slough connectivity. Cost dependent on landowner impacts
High	5	Hilt Creek RB Floodplain Remediation 2	RM3-4 Hilt Creek	10	4, 5	Medium	10,000	High	188	High	~2 to 9	Both	Medium	Medium	Short	One established home with several at-grade access roads. One small crossberm in RB floodplain. Limited channel connectivity to sloughs. Larger project would include several smaller properties likely needing flood/erosion protection. SCL knows primary landowner
	6	Hobbit Corner Concrete Sauk Valley RD Setback 1	RM3.5	10	4, 5	Medium	350	Low	1	Low	2 to 4	Both	Low	Medium	Short	Replace culvert with bridge and potentially setback road on LB for additional floodplain function and barrier replacement
High	7	SR530 Setback	RM4.5	10	2, 4, 5, 8	High	6000	High	89	High	~20	Private	High	High	Long	Setback road on RB for additional floodplain function; Hilt Creek delta restoration; in 10yr flowpaths; major home purchases would be required
	8	Concrete Sauk Valley RD Setback 2	RM5	10	2, 4, 5, 8	High	3500	Medium	39	Medium	~7	Private	High	High	X	Setback road on LB for additional floodplain function. Minor 10yr flow so likely habitat gain overestimated
	9	Steelhead RB Floodplain Remediation 3	RM5+	20A	4, 5	Medium	2000	Medium	40	Medium	~20	Private	High	High	X	Create side and off channel functions via excavation and bridge installation to extend Hilt Creek hillslope channel as thought experiment. Infeasible/not recommended concept avoiding Steelhead Landing. Minor 10yr flow so habitat gain overestimated
Infrastructure Planning	10	RM7 RB Bank Armor Softening 1	RM6-7	20A	5, 6b	Low	1500	Medium	1	Low	1	Public	Low	High	Plan	SR530 toe protection; limited floodplain to be gained so only shoreline softening value to improve edge habitat
	11	Flume Creek Tributary Floodplain	RM7	20B	4	Medium	500	Low	1	Low	3	Both	Low	Medium	Long	Replace culvert with bridge over Flume Creek for additional floodplain function and potentially barrier replacement. Benefit hard to estimate w/out model
Infrastructure Planning	12	RM8 RB Bank Armor Softening 2	RM8.5-9+	20B	5, 6b	Low	1300	Medium	1	Low	1	Public	Low	High	Plan	SR530 toe protection; limited floodplain to be gained so only shoreline softening value to improve edge habitat
	13	RM9 RB Bank Armor Removal	RM8.5-9+	30	4	Medium	640	Low	0	Low	1 to 2	Both	Low	Low	Short	SR530 road setback also removed some bank armor though left much too. Uncertain how much risk is involved
Infrastructure Planning	14	SCL Transmission Tower Setback 1	RM9-10	30	3	N/A	2000	Medium	?	?	2	Both	Med	High	Plan	Towers, line, and road are in CMZ and RMZ and potential future erosion. No effort applied to scoping solutions; consider managed retreat and floodplain stability
Infrastructure Planning	17	SCL Transmission Tower Setback 2	RM11.5	30	3	N/A	2600	Medium	?	?	2	Both	Med	High	Plan	Towers, line, and road are in CMZ and RMZ and potential future erosion. No effort applied to scoping solutions; consider managed retreat and floodplain stability
High	19	SR530 Steel Bridge Expansion/Relocation	RM12	40	4, 5, 6b, 8	High	7100	High	75	High	3	Public	Low	High	Long	Relocate or raise 1400' of west bank SR530 approach to Sauk River bridge to restore and/or improve 7100' offchannel habitat; soften shoreline as well. Consider short-term alternatives such as downstream ELJs onto engage left bank channels
High	20	Bryson LB Floodplain Remediation 4	RM15	50	4, 5, 6b, 8	High	5800	High	40	Medium	2 to 3	Both	Medium	Medium	Short	Bank armor removal and excavation to restore channel migration processes, expanding active floodplain and improving quality of side channel connectivity below Bryson Road
	21	Isolated LB Floodplain Remediation 5	RM19	50	4, 5	Medium	1700	Medium	9	Low	3	Both	Low	Low	Short	Remove historic access road on SCL property and excavate starter channels. SCL, DNR, and 1 private property
	22	Ramp LB Floodplain Remediation 6	RM19.5	50	4, 5	Medium	1000	Low	5	Low	1	Public	Low	Low	Short	Assess benefit of removing historic access road and road ramps on SCL property and excavation of starter channels
High	23	Homestead RB Floodplain Remediation 7	RM19.5	50	2, 4, 5, 6b, 8	High	4500	High	33	Medium	7	Private	High	High	Long	Cleared homestead site with multiple other newer homes downstream, has push up levee with unknown toe protection, limited riparian except Xmas trees. High potential benefit but high community impact
High	24	Boyd Road LB Floodplain Remediation 8	RM19.5-21	50	2, 4, 5, 6b, 8	High	7200	High	82	High	4	Both	Medium	Medium	Short	Isolated floodplain and side channel area from large hydromod, dredged historic side channel, and berms. Remove armor, excavate side channel connections, remove or improve crossings, spread berm materials. No field review

High	25	Prairie Road RB Floodplain Remediation 9	RM20	50	4, 5, 6b, 8	High	4000	High	30	Medium	3 to 5	Private	Medium to Low?	Medium	Short	Historic bank armor and potential dredging and fill isolate erosion and flooding. Uncertain how much existing habitat channels behind armor. Adjacent neighborhood with all private property reduces feasibility of armor removal, but perhaps backwater channel enhancement alone has fewer landowners and thus more feasible. No field review
	26	Mouse Creek Off-channel Rearing Ponds	RM19-20	50	9	Low	2500	Medium	0	Low	4	Private	Low	Low	Short	Locals say there's an existing network of rearing ponds in this wetland area that can be renovated if creation of habitat is needed. Connected to Mouse Creek which is trib to Dan Creek. ? Is whether creation of short term habitat is effective
High	27	Dan Creek Alluvial Fan	RM 19	50	4, 5, 6b, 8	High	1500	Medium	2	Low	2	Private	Low	Medium	Short	Undersized bridge, floodplain filling and armor have reduced stream complexity and rearing habitat. Excavate delta cone, remove armor. Inquire with county re: bridge status for expanded alluvial fan restoration; connect to Mouse Creek & rearing ponds?
	28	Sawdust Pile Pullback	RM22	60D	4, 5	Medium	1300	Medium	10	Low	1	Private	Low	Medium	Short	Hampton Lumber Mill sawdust pile filled floodplain and CMZ and diminishes instream and riparian conditions. ? is if community impact can scale higher or lower depending on the mill's space needs
High	29	Fir Street LB Floodplain Remediation 10	RM23	60A	4, 5, 6b, 8	High	4600	High	45	Medium	7	Private	High	High	Long	Push up berms and side channel manipulation have reduced rearing habitat potential. Several large properties but limited floodplain structures. No field review.
High Combined	30	End of Road RB Floodplain Remediation 11	RM23	60B	4	Medium	800	Low	5	Low	2	Public	Low	Low	Short	Remains of vacated North Sauk River RD should be excavated from floodplain to enable small floodplain, channel, wetland restoration and enhance adjacent floodplain remediation projects. Consider excavating modest wetland channels for expediting overflow
	31	North Sauk River Road Fill Removal	RM 23.5	60B	2, 4, 5	High	1900	Medium	5	Low	2	Public	Low	Low	Short	Historic road fill in channel no longer viable for vehicle traffic. Remove road fill in channel and south of channel to restore off-channel beaver pond complex
	32	Old Bridge RB Floodplain Remediation 12	RM23.5	60B	4, 5, 6b	Medium	1600	Medium	8	Low	1	Public	Low	Medium	Short	Existing side channel that could be enhanced with apex bar jam, berm removal, bridge abutment removal and connectivity to enhanced beaver ponds (project #31) and End of Road (#30)
High	33	Kamp RB Floodplain Remediation 13	RM23.5	60B	2, 5	High	5600	High	39	Medium	8	Both	Medium	Medium	Long	Vacate additional end of North Sauk River RD and excavate inlet channel to enable reconnection of right bank off channel habitats. SCL and USFS are public landowners but several private inholdings make this a longer-term approach.
Infrastructure Planning	34	Clear Creek Road Removal	RM24	60B	3, 4, 5, 6b	Medium	0	Low	5	Low	9	Both	High	Low	Plan	Clear Creek Road is eroding at the toe and is closed down to one lane. If road is further undercut and vacated then could excavate road bed for floodplain restoration. Minimal aquatic habitat/channel benefits unless road bed actively excavated and culvert replaced.
	35	Lower Backman Slough LB Floodplain Remediation 14	RM24.5	60B	4, 5, 6b	Medium	1200	Medium	7	Low	18	Private	High	High	X	Small residential lots have been filled and developed along left bank bar, with berms and potentially bank armor limiting channel formation and inundation. Infeasible due to loss of large number of homes. No field review.
	36	Upper Backman Slough LB Floodplain Remediation 15	RM24.75	60B	4, 5, 6b	Medium	1100	Medium	6	Low	14	Private	High	Medium	Short	Small residential lots have been developed along historic side channel on left bank, with berms and potentially bank armor limiting channel formation and inundation. Potentially more feasible given no structures in floodplain but depends on landowner use of seasonally inundated area
	37	Clear Creek LB Floodplain Remediation 16	RM25	60B	4, 6b	Medium	1500	Medium	12	Low	1	Public	High	High	Long	Remove bank armor and flood berms to restore side channel habitat. Habitat enhancements can be done waterward of current conditions.
	38	Coho Off-Channel Rearing Ponds	RM25.25	60B	5	Low	0	Low	10	Low	1	Public	Low	Low	Short	Uncertain that rearing pond or road infrastructure is in Sauk CMZ or if there's long-term chinook habitat. Riparian maintenance warranted