

Draft Treatments for the Calapooia River from former Brownsville Dam to Sodom Dam

Reach 1: 0+00 to 138+00
 Reach 2: 138+00 to 216+00
 Reach 3: 216+00 to 301+00
 Reach 4: 301+00 to 422+00

Benefits: potential biological or physical benefits
 JRH: juvenile rearing habitat
 ARH: adult resting habitat
 FP Habitat: floodplain habitat

Acronyms:
 LWD: large woody debris
 ELJ: engineered log jam
 VSL: vegetated soil lift

Site #	Station	Channel/Floodplain		Recommended Treatment	Benefits	Access	Feasibility	Failure Risk
		Location						
1	14+00	Right		Accentuate backwater at bottom of riffle, add LWD	JRH, ARH, Pool Scour	Good	High	Low
2	19+00	Left		Potential backwater area on left bank floodplain, connect backwater with channel on downstream end, add LWD	JRH, ARH	Good	High	Low
3	20+00	Left		Potential ELJ at existing barb to deflect flows towards point bar	ARH, Pool Scour, Bank Protection	Good	High	Med
4	23+00	Left		Potential ELJ at existing barb to deflect flows towards point bar	ARH, Pool Scour, Bank Protection	Good	High	Med
5	24+00	Right		Place LWD on right floodplain and excavate connected floodplain depressions for resting habitat and improved vegetation condition	ARH, FP Habitat	Good	High	Low
6	28+00	Left		Construct ELJs to deflect flow from eroding bank and enhance habitat.	ARH, Pool Scour, Bank Protection	Medium	Medium	Medium
7	28+00 to 49+00	Left		Historically complex sidechannel area. Excavate sidechannel at 1936 channel location. Topography to the south suggests possible groundwater source for perc side channel. Natural pond mapped at 43+00.	JRH, ARH, FP Habitat, Reduce stress on downstream left bank	Good	High	Low

8	33+00	Right	Excavate deposits to accentuate backwater habitat and add LWD.	JRH, ARH, FP Habitat	Good	High	Low
9	38+00 to 40+00	Right	Institute riparian buffer and install ELJs to provide bank protection at gravel extraction operation site	ARH, Bank Protection	Good	High	Medium
10	42+00	Left	Add LWD to existing backwater.	JRH, ARH	Medium	High	Low
11	48+00	Left	Excavate backwater/slough to existing FP pond, add LWD	JRH, ARH, FP Habitat	Medium	High	Low
12	53+00	Right	Add LWD to floodplain, excavate floodplain swales. Discuss FP disturbance with landowner	FP Habitat	Good	High	Low
13	62+00	Right	Excavate to accentuate backwater habitat and connect to floodplain pond, add LWD	JRH, ARH, FP Habitat	Medium	High	Low
14	66+00	Right	Stabilize eroding terrace with ELJs, VSLs, revegetation, riparian buffer	ARH, Bank protection, Pool scour	Good	High	Medium
15	70+00	Right	Excavate head of floodplain side channel for habitat and to reduce downstream stress, add LWD	JRH, Downstream bank protection, Floodplain habitat	Good	High	Medium
16	78+00	Left	Excavate backwater slough to existing FP pond	JRH, ARH, Floodplain habitat	Good	High	Low
17	80+00	Left	Oakley Site - Re-grade bank upstream of barb project and stabilize with ELJ - Replant and expand riparian buffer	ARH, Bank protection Bank protection, riparian condition	Good Good	High High	Medium Low

18	84+00 to 101+00	Left	Excavate head of floodplain sidechannel for habitat and to reduce downstream bank stress. Connect floodplain pond to mainstem.	JRH, ARH, FP habitat, Bank protection	Medium	Medium	Medium
19	98+00	Right	Excavate head of floodplain sidechannel for habitat and to reduce downstream bank stress.	JRH, ARH, FP habitat, Bank protection	Medium	High	Medium
20	104+00	Left	Add ELJ at start of project area for flow deflection - Regrade eroding bank and replant - Increase width of riparian buffer - Remove ivy from base of cottonwoods	ARH, Bank protection	Good	High	Medium
21	128+00 to 136+00	Right	Excavate head of relic channel at 128+00 to connect flows with backwater at 136+00	JRH, ARH, FP habitat, Bank protection	Medium	High	Low
22	136+00	Right	Add LWD for habitat in backwater area.	JRH, ARH, FP habitat	Medium	High	Low
23	138+00 to 216+00	Left and Right	Highly developed reach with little potential for larger backwater restoration projects. Recommend protecting existing riparian buffer and shade trees, and educating land owners.	Bank protection, stream shading, FP and upland habitat		High	Low
24	147+00	Left	Add ELJs for habitat and flow deflection, Establish riparian buffer	Bank protection, stream shading, FP and upland habitat	Good	High	Low

25	156+00	Left	Add ELJs for habitat and flow deflection, Establish riparian buffer	ARH, Bank protection, Stream shading, FP habitat	Good	High	Low
26	159+00 to 162+00	Right	Riparian buffer	Bank protection, Stream shading, FP habitat	Good	High	Low
27	166+00 to 170+00	Left	Riparian buffer	Bank protection, Stream shading, FP habitat	Good	High	Low
28	175+00	Left	Install ELJs, Establish riparian buffer	ARH, Pool scour, Bank protection, FP habitat	Good	High	Low
29	192+00 to 198+00	Left (riprap bank)	Install ELJs, Plant riprap, Establish riparian buffer	JRH, ARH, Pool scour	Medium	Medium	Medium
30	204+00 to 210+00	Right (Brownsville Park)	Rubbish removal, Re-grade eroding bank, ELJs, VSLs, Revegetate	JRH, ARH, Pool scour, Bank protection, Riparian vegetation	Good	Good	Med/High
31	211+00	Right	Re-grade eroding bank, ELJs, VSLs, Revegetate	JRH, ARH, Pool scour, Bank protection, Riparian vegetation	Good	Good	Med/High
32	217+00 to 225+00	Right (Illegal filling)	Bank disturbance, Install ELJs, Revegetate, Establish riparian buffer	JRH, ARH, Pool scour, Bank protection, Riparian vegetation	Good	Good	Low
33	225+00 to 230+00	Right	Monitor area where riparian area cut and new development is planned				

34	231+00	Right	Add ELJ to start of NRCS bank stabilization project, Revegetate, Expand riparian buffer	JRH, ARH, Pool scour, Bank protection, Riparian vegetation	Good	Good	Medium
35	238+00	Left	Add LWD for habitat in backwater area	JRH, ARH	Good	Good	Low
36	239+00 to 241+00	Left	Re-grade eroding terrace, Install ELJs and VSLs, Revegetate, Establish riparian buffer	JRH, ARH, Pool scour, Bank protection, Riparian vegetation, Reduce fine sediment loading	Good	Good	High
37	241+00	Left	Remove rock spur projecting into channel	Increase channel capacity, Bank protection	Good	Good	Low
38	248+00 to 268+00	Right	Potential to activate historic active channel, convey flows through side channel.				
39	250+00	Right	Connect excavated floodplain pond to channel, Add LWD, Revegetate	JRH, ARH, FP habitat	Good	Medium	Low
40	258+00	Left	Add LWD to backwater	JRH, ARH, FP habitat	Good	Good	Low
	259+00 to 261+00	Left	Add 3 ELJs for habitat enhancement and establish riparian buffer	JRH, ARH, Pool scour	Good	Good	Medium
41	269+00	Right	Excavate backwater channel, Add LWD	JRH, ARH, FP habitat	Good	Good	Low
42	270+00 to 274+00	Right	Establish riparian buffer	Stream shading	Good	Good	Low
43	278+00	Right	Excavate floodplain pond and connecting channel	JRH, ARH, FP habitat	Good	Good	Low

44	280+00	Left	Excavate floodplain channel	JRH, ARH, FP habitat	Good	Good	Low
45	280+00 to 292+00	Left	Connect off-channel groundwater fed spring ponds, Add LWD	JRH, ARH, Cool water refugia	Good	Good	Low
46	289+00 to 297+00	Right	Excavate floodplain channel, Add LWD	JRH, ARH, FP habitat	Good	Good	Low
47	332+00 to 336+00	Left and Right	ELJ to create pocket pool habitat and slow water velocities in straight channel section	JRH, ARH, Pool scour	Medium	Good	Low
48	366+00	Left	Add LWD to alcove and excavate backwater channel, Establish riparian buffer	JRH, ARH, FP Habitat	Good	Good	Low
49	366+00	Left	Add LWD to backwater	JRH, ARH	Good	Good	Low
50	366+00 to 368+00	Left	Institute riparian buffer	FP habitat, stream shading	Good	Good	Low
51	372+00	Left	Discuss disturbance of gravel bar with land owner.	FP habitat, improved vegetation condition			
52	393+00	Right	Enhance backwater channel, add LWD	JRH, ARH	Good	Good	Low
53	398+00 to 400+00	Left	Repair and enhance barbs, institute riparian buffer.	JRH, ARH, Pool scour, bank protection	Good	Good	Medium