

California High Speed Train Project – Merced to Fresno Permitting Phase 1

Clean Water Act Section 401 Water Quality Certification

Attachment E

Mitigation Ratios

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Compensatory Mitigation Ratios for California High Speed Train Permitting Phase 1								
			Watershed		401 Impacts			Site I.D. numbers
	401 IMPACT TYPE	CORPS IMPACT TYPE	USGS "8 digit" HUC ¹	Basin Plan HUC ¹	Acres of Impact	Acres of Mitigation	Mitigation Ratio ²	
"Streams"	Natural Watercourse	Riverine High CRAM (Bridge)	18040001 18040007	545	0.020	0.027	1.35:1	11790
	Natural Watercourse	Riverine Mid CRAM (Bridge)	180400011 8040007	545	0.012	0.016	1.35:1	11795, 11800
	Constructed Watercourse	Canal/Ditch	18040001 18040007	545	0.741	0.741	1:1	161, 163, 168, 169, 175, 7156, 7951, 9298
"Wetlands"	Constructed Watercourse	Canal/Ditch	18030009	551.3	1.020	1.020	1:1	156, 8214, 9314, 9341, 9342, 9344, 9936
	Vernal Pool Wetlands	Vernal Pool High CRAM	18040001 18040007	545	1.282	3.167	2.47:1	5151, 5154, 11299
	Seasonal Wetland	Seasonal Wetland	18040001 18040007	545	0.351	0.807	2.3	7332
	Constructed Basin ³	Basin	18040001 18040007	545	0.097	0.097	1:1	7330
	Constructed Basin	Basin	18030009	551.3	2.656	2.656	1:1	3567, 3571, 8103, 8176, 8181, 8916, 8917, 9345, 9953, 10958
	TOTAL IMPACTS AND ACREAGE PROPOSED FOR COMPENSATORY MITIGATION				6.179	8.531		

Mitigation amounts and ratios in this table were developed by the applicant in consultation with the Corps and State Water Board. These final mitigation ratios are listed in Table 4-2 of the PRMP.

Note 1) Hydrologic Unit Code.

Note 2) These mitigation ratios were developed with the Corps using the Corps' Mitigation Ratio Standard Operating Procedure. Additionally, impacts to non-wetland riparian habitat will be mitigated at a 2:1 ratio. The 1.1 acre of impact to non-wetland riparian habitat associated with San Joaquin River and Cottonwood Creek will result in 2.2 acres of mitigation.

Note 3) This category of waters, "Constructed Basins" or "Basins," affects constructed depressional features designed and maintained for specific management purposes; i.e., storm water detention or irrigation runoff detention, storage or treatment. Impacts due to fill of these waters will typically be mitigated by reconstruction of the basin in areas adjacent to or near the original location. When rebuilding the basin is not feasible or not requested by the affected landowner, the applicant has agreed to provide additional vernal pool establishment at a reduced ratio. Staff has determined that off-site compensation above that proposed here is unnecessary. HSRA will document landowner preferences leading to decisions to compensate or replace the affected features.