HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)	Х	
Dike/levees	X	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Channel modified for drainage, but still relatively natural		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management	Х	
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments	•	
Managing vegetation on levees		

e negative effect on AA
effect on AA

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture			
Orchards/nurseries	Х	Х	
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor	Х		
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			

Your Name: C. Roberts						
CRAM Site ID: FB HST						
Assessment Area Name: R150						
Date (mm/dd/yyyy): 09/26/2011						
Assessment Team Members for This AA						
. Whitfield, A. Langston, G. Peracca						
Average Bankfull Width: 9.5 meters						
Approximate Length of AA (10 times bankfull width, min 100 m, max 200 m): 100 meters						
Wetland Sub-type:						
X Confined [] Non-confined						
A commed [] I ton commed						
AA Category:						
[] Restoration [] Mitigation [] Impacted X Other						
Did the river/stream have flowing water at the time of the assessment? [] yes X no						
What is the apparent hydrologic flow regime of the reach you are assessing?						
The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only						
during and immediately following precipitation events. Intermittent streams are dry for part of the						
year, but conduct water for periods longer than ephemeral streams, as a function of watershed size						
and water source.						
[] perennial [] ephemeral X intermittent						
Photo Identification Numbers and Description:						
Photo ID No. Description Latitude Longitude Datum						
1 1241 NE						
2 1242 NW						
3 1246 SE						

AA Name: R150				Date: 09/26/2011	
Attributes and Metrics		Scores		Comments	
Buffer and Landscape Contex	t				
Landscape Conne	ctivity	1	2		
Buffer submetric A:					
Percent of AA with Buffer	12				
Buffer submetric B: Average					
Buffer Width	3				
Buffer submetric C: Buffer					
Condition	6		T		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribu$	ite Score	Raw	Final	Final Attribute Score =	
		18	75	(Rawcore/24)100	75
Hydrology					
	ter Source		6		
Hydroperiod or Channe	,	!	9		
Hydrologic Co	nnectivity	!	9		
Attaila	to Saara	Raw	Final	Final Attribute Score =	
Attribute Score		24	67	(Raw Score/36)100	67
Physical Structure					
Structural Patch	Richness		3		
Topographic C	omplexity		9		
Attribute Score		Raw	Final	Final Attribute Score =	
Attribt	ne score	12	50	(Raw Score/24)100	50
Biotic Structure					
Plant Community submetric A:					
Number of Plant Layers	9			3 Layers	
Plant Community submetric B:					
Number of Co-dominant species	3			6 co-dominants	
Plant Community submetric C:					
Percent Invasion	9			16% invasion	
Plant Commun	-				
(average of subm			7		
Horizontal Interspersion and			6		
Vertical Biotic	Structure		6		
Attribu	ite Score	Raw 19	Final 53	Final Attribute Score = (Raw Score/36)100	53
Overall AA Score (Avera	age of Fina			(3)	
L				61.3	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)	Х	
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)	X	
Dike/levees	X	Х
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Leveed AA		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management	Х		
Excessive sediment or organic debris from watershed	Х	Х	
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse	Х		
Comments			
Tree cutting see biotic structures			

Present and likely	Significant	
to have negative	negative	
effect on AA	effect on AA	
X		
Х		
	to have negative effect on AA	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture			
Orchards/nurseries	Х		
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor	Х		
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			

You	Your Name: G. Peracca					
	CRAM Site ID: FB HST					
Asse	Assessment Area Name: R157A					
Date	e (mm/dd/yyy	y):09/28/2011				
		Members for T	his AA			
C. Ro	berts, A. Langsto	on, G. Peracca				
A	verage Bankfu	ıll Width: 140 m	eters			
	pproximate Le	ength of AA (10	times bankfull widt	h, min 100 m, max 2	00 m):	
W	etland Sub-typ	e:				
		X Confined	[] Non-conf	ined		
A	A Category:					
	[] Restoration	n []]	Mitigation	[] Impacted	X Other	
D	Did the river/stream have flowing water at the time of the assessment? X yes [] no					
W	hat is the appa	arent hydrologic	c flow regime of the	reach you are asses	sing?	
			_	ency with which the cha		
				s ephemeral streams cond		
du	ring and immedia	ately following pre	ecipitation events. Inter	mittent streams are dry f	or part of the	
		rater for periods lo	onger than ephemeral s	treams, as a function of	watershed size	
and water source.						
	X perennial [] ephemeral [] intermittent					
P	hoto Identifica	tion Numbers a	and Description:			
	Photo ID		-	T	D .	
	No.	Description	Latitude	Longitude	Datum	
1	1288	North				
2	n/a	South				
3	1290	East				
4	1287	West				

AA Name: R157A				Date: 09/28/2011	
Attributes and Metrics		Sco	Scores Comments		
Buffer and Landscape Contex	t				
Landscape Conne			9		
Buffer submetric A:					
Percent of AA with Buffer	12				
Buffer submetric B: Average					
Buffer Width	6				
Buffer submetric C: Buffer				Urban park landscape	
Condition	3				
$D + [C \times (A \times B)^{\frac{1}{2}}]^{\frac{1}{2}} = Attribu$	ite Score	Raw	Final	Final Attribute Score =	
D · [Cx(HxD)] Ruibu	ite ocore	14	59	(Rawcore/24)100	59
Hydrology					
	ter Source		6		
Hydroperiod or Channe	el Stability		9		
Hydrologic Co	nnectivity		9		
Attribute Score		Raw	Final	Final Attribute Score =	
Attribu	ne score	24	67	(Raw Score/36)100	67
Physical Structure					
Structural Patch	Richness		3		
Topographic C	omplexity	1	L2		
A 44	ite Score	Raw	Final	Final Attribute Score =	
Aunot	ne score	15	63	(Raw Score/24)100	63
Biotic Structure					
Plant Community submetric A:					
Number of Plant Layers	12			4 layers	
Plant Community submetric B:					
Number of Co-dominant species	9			9 co-dominant spp.	
Plant Community submetric C:					
Percent Invasion	12			0% non-native spp.	
Plant Commun					
(average of subm			L1		
Horizontal Interspersion and			9		
Vertical Biotic	Structure		6		
Attribu	ite Score	Raw	Final	Final Attribute Score =	
Attribe	50010	26	72	(Raw Score/36)100	72
Overall AA Score (Avera	age of Fina	ıl Attribu	ite Scores		
	0			65.3	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse	Х	
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation	Х	Х
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		
Human visitation impact is related to adjacent urban park.		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Urban residential	Х	
Industrial/commercial	X	
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)	X	Х
Passive recreation (bird-watching, hiking, etc.)	Х	
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)	Х	
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		
Urban park is related to human visitation above in Biotic Struc	ture Attribute.	

Yo	ur Name: C. Rob	erts				
CR	AM Site ID: FB	HST				
As	sessment Area N	Name: R160				
Da	te (mm/dd/yyy	y): 09/29/2011				
		Members for T	his AA			
C. F	oberts, A. Langsto	on, G. Peracca				
ı	Average Bankfu	ıll Width: 130 m	eters			
	Approximate Le 300 meters	ength of AA (10	times bankfull widtl	n, min 100 m, max 2	200 m):	
•	Wetland Sub-typ	oe:				
		X Confined	[] Non-confi	ned		
ı	AA Category:					
	[] Restoration	n []1	Mitigation	[] Impacted	X Other	
1	Did the river/stream have flowing water at the time of the assessment? X yes [] no					
•	What is the appa	arent hydrologic	c flow regime of the	reach you are asses	sing?	
y S	What is the apparent hydrologic flow regime of the reach you are assessing? The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.					
	X pe	erennial	[] ephemeral	[] intermittent		
]	Photo Identifica	tion Numbers a	and Description:			
	Photo ID No.	Description	Latitude	Longitude	Datum	
1	N/A	North				
2	N/A	South		_		
3	1291	East				
4		West				
5		General				
6	1294	General				

AA Name: R160					Date: 09/28/2011	
Attributes and Metrics		Scores		:S	Comments	
Buffer and Landscape Context	t					
Landscape Connectivity			12			
Buffer submetric A:						
Percent of AA with Buffer	12					
Buffer submetric B: Average						
Buffer Width	3				Average = 45m	
Buffer submetric C: Buffer						
Condition	6					
$D + [C \times (A \times B)^{\frac{1}{2}}]^{\frac{1}{2}} = Attribu$	ite Score	Raw		Final	Final Attribute Score =	
$D + [C \times (H \times D)] = \mathbf{Attribut}$	ic score	18		75	(Rawcore/24)100	75
Hydrology						
	ter Source		6			
Hydroperiod or Channe	el Stability		6			
Hydrologic Co	nnectivity		6			
Azzaila	40 C 00 #0	Raw		Final	Final Attribute Score =	
Attribu	ite Score	18		50	(Raw Score/36)100	50
Physical Structure						
Structural Patch	Richness		3			
Topographic Complexity			9			
A •1	. 0	Raw		Final	Final Attribute Score =	
Attribu	ite Score	12		50	(Raw Score/24)100	50
Biotic Structure						
Plant Community submetric A:						
Number of Plant Layers	9				3 layers	
Plant Community submetric B:						
Number of Co-dominant species	6				6 co-dominant spp.	
Plant Community submetric C:						
Percent Invasion	12				0% non-native spp.	
Plant Commun						
(average of subm			9			
Horizontal Interspersion and			6			
Vertical Biotic	Structure		9			
Attribu	ite Score	Raw		Final	Final Attribute Score =	
Attiibu	50010	24			(Raw Score/36)100	67
Overall AA Score (Avera	age of Fina	ıl Attribi	ute	Scores		
	0 -				60.5	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	X	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Leveed		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)	X	Х	
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed	Х		
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse	Х		
Comments			
Grading active on opposite bank. Oil wells in vicinity.			

Present and likely	ly Significant	
to have negative	negative	
effect on AA	effect on AA	
	to have negative	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE	Present and likely to have negative	Significant negative	
(WITHIN 500 M OF AA)	effect on AA	effect on AA	
Urban residential	X	X	
Industrial/commercial	X	X	
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture			
Orchards/nurseries			
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor	Х	Х	
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)	Х		
Passive recreation (bird-watching, hiking, etc.)	Х		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)	Х		
Biological resource extraction (aquaculture, commercial fisheries)			
Comments	•	•	

You	Your Name: A. Langston					
CRA	CRAM Site ID: FB HST					
Ass	Assessment Area Name: R203					
Dat	e (mm/dd/yyy	y): 03/08/2012				
Ass	essment Team	Members for T	his AA			
A. La	ngston, G. Perac	ca, C. Roberts, J. \	Whitfield			
A	verage Bankfu	ıll Width: 2.7m				
A	pproximate Le	ngth of AA (10	times bankfull widt	h, min 100 m, max 2	200 m): 100 m	
W	etland Sub-typ	e:				
		X Confined	[] Non-conf	ined		
A	A Category:					
	[] Restoration	n []]	Mitigation	[] Impacted	X Other	
D	old the river/str	eam have flowi	ng water at the time	e of the assessment?	e [] yes X no	
What is the apparent hydrologic flow regime of the reach you are assessing? The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.						
	[] [perennial	[] ephemeral	X intermittent		
P	hoto Identifica	tion Numbers a	and Description:			
	Photo ID No.	Description	Latitude	Longitude	Datum	
1	1721	South/East				
2	1722	North/East				
3	1723	South/West				
4	1724	North/West				

AA Name: R203					Date: 03/08/2012	
Attributes and Metrics		Scores		es	Comments	
Buffer and Landscape Context						
Landscape Connectivity			3			
Buffer submetric A:						
Percent of AA with Buffer	3				No buffer	
Buffer submetric B: Average						
Buffer Width	3				Avg=4 meters	
Buffer submetric C: Buffer						
Condition	3					
$D + [C \times (A \times B)^{\frac{1}{2}}]^{\frac{1}{2}} = Attribu$	ite Score	Raw		Final	Final Attribute Score =	
B · [Cx(11xB)] Ittilibu	ite beore	6		25	(Raw score/24)100	25
Hydrology						
Wat	er Source		3			
Hydroperiod or Channe	l Stability		3			
Hydrologic Cor	nnectivity		3		Entrenchment ratio =1.20	
A	4 - C	Raw		Final	Final Attribute Score =	
Attribu	te Score	9		25	(Raw Score/36)100	25
Physical Structure	'					
Structural Patch	Richness		3		1 patch type	
Topographic C	omplexity		3			
		Raw		Final	Final Attribute Score =	
Attribu	ite Score	6		25	(Raw Score/24)100	25
Biotic Structure	L					
Plant Community submetric A:					1 layer	
Number of Plant Layers	6					
Plant Community submetric B:					4 co-dominant spp.	
Number of Co-dominant species	3					
Plant Community submetric C:					0% invasive spp.	
Percent Invasion	12					
Plant Commun	-		_			
(average of subm			7			
Horizontal Interspersion and			3			
Vertical Biotic	Structure		3			
Attribu	ite Score	Raw		Final	Final Attribute Score =	
		13		36.1	(Raw Score/36)100	36.1
Overall AA Score (Avera	age of Fina	ıl Attribı	ute	Scores		
- (0				27.8	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Man-made feature built and managed by the stressors highlig	hted in bold, which	don't have
a negative effect on AA but define features.		

Filling or dumping of sediment or soils (N/A for restoration areas)	effect on AA	negative effect on AA
iming of dumping of sediment of sons (14/11 for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)	Х	
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		
ocated in heavy agricultural area with no buffer, but direct is stressors not evident.	mpacts of physical st	ructure
טוובטטוט ווטג פעועפווג.		

BIOTIC STRUCTURE ATTRIBUTE	Present and likely	Significant	
(WITHIN 50 M OF AA)	to have negative	negative	
,	effect on AA	effect on AA	
Mowing, grazing, excessive herbivory (within AA)			
Excessive human visitation			
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)			
Tree cutting/sapling removal			
Removal of woody debris			
Treatment of non-native and nuisance plant species			
Pesticide application or vector control			
Biological resource extraction or stocking (fisheries, aquaculture)			
Excessive organic debris in matrix (for vernal pools)			
Lack of vegetation management to conserve natural resources			
Lack of treatment of invasive plants adjacent to AA or buffer			
Comments			
Comments			

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture			
Orchards/nurseries	Х		
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor	Х		
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			
Adjacent to BNSF railroad.			

You	Your Name: G. Peracca						
CRA	CRAM Site ID: FB HST						
Asse	Assessment Area Name: R205						
Date	e (mm/dd/yyy	y): 03/08/2012					
Asse	essment Team	Members for T	his AA				
A. Laı	ngston, G. Perac	ca, C. Roberts, J. \	Whitfield				
A	verage Bankfu	ıll Width: 9m					
A	pproximate Le	ngth of AA (10	times bankfull widt	h, min 100 m, max 2	200 m): 100 m		
W	etland Sub-typ	e:					
		X Confined	[] Non-conf	ined			
A	A Category:						
	[] Restoration	n []]	Mitigation	[] Impacted	X Other		
D	id the river/str	eam have flowi	ng water at the time	e of the assessment?	[] yes X no		
What is the apparent hydrologic flow regime of the reach you are assessing? The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.							
	[] perennial [] ephemeral X intermittent						
Pl	noto Identifica	tion Numbers a	and Description:				
	Photo ID No.	Description	Latitude	Longitude	Datum		
1	1717	South/West					
2	1718	North/West					
3	1720	South/East					
4	1719	North/East					

AA Name: R205					Date: 03/08/2012	
Attributes and Metrics		Scores		es	Comments	
Buffer and Landscape Context						
Landscape Connectivity			12			
Buffer submetric A:						
Percent of AA with Buffer	3				No buffer. Road too narro	W
Buffer submetric B: Average	_					
Buffer Width	3				Avg=4 meters	
Buffer submetric C: Buffer						
Condition	3					
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribu$	ite Score	Raw		Final	Final Attribute Score =	
D + [C x (11 x D)] 11ttilbu	ite ocoic	15		62.5	(Raw score/24)100	62.5
Hydrology						
Wat	er Source		6			
Hydroperiod or Channe	l Stability		3			
Hydrologic Cor	nnectivity		3		Entrenchment Ratio=1.20	
Attribute Score		Raw		Final	Final Attribute Score =	
Attribu	te Score	12		33.3	(Raw Score/36)100	33.3
Physical Structure	'					
Structural Patch	Structural Patch Richness		3		1 patch type	
Topographic Co	omplexity		3			
A "1		Raw		Final	Final Attribute Score =	
Attribu	ite Score	6		25	(Raw Score/24)100	25
Biotic Structure	l					
Plant Community submetric A:						
Number of Plant Layers	6					
Plant Community submetric B:					3 co-dominant spp.	
Number of Co-dominant species	3					
Plant Community submetric C:	_				33% invasive spp.	
Percent Invasion	6					
Plant Commun	•		_			
(average of submetrics A-C)			5			
Horizontal Interspersion and Zonation			3			
Vertical Biotic Structure			3			
Attribu	te Score	Raw		Final	Final Attribute Score =	
Attiibu	50010	11		30.6	(Raw Score/36)100	30.6
Overall AA Score (Avera	ge of Fina	ıl Attrib	ute	Scores		
	0	,,			37.9	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)	Х	
Flow obstructions (culverts, paved stream crossings)	X	
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)	X	
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed	Х	
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture			
Orchards/nurseries	Х		
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor			
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			

You	r Name: A. Lang	gston						
CRA	CRAM Site ID: FB HST							
Asse	Assessment Area Name: R208							
Date	e (mm/dd/yyy	y): 03/07/2012						
Asse	essment Team	Members for T	his AA					
A. La	ngston, G. Perac	ca, C. Roberts						
A	verage Bankfu	ıll Width: 12m						
A	pproximate Le	ength of AA (10	times bankfull widt	h, min 100 m, max 2	200 m): 120m			
W	etland Sub-typ	oe:						
		X Confined	[] Non-conf	ined				
A	A Category:							
	[] Restoration	n []]	Mitigation	X Impacted	[] Other			
D	id the river/str	eam have flowi	ng water at the time	e of the assessment:	? [] yes X no			
What is the apparent hydrologic flow regime of the reach you are assessing? The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.								
	[] perennial [] ephemeral X intermittent							
P	hoto Identifica	tion Numbers a	and Description:					
	Photo ID No.	Description	Latitude	Longitude	Datum			
1	1695	North/West						
2	1696	North/East						
3	1698,1699	South/West						
4	1697	South/East						

AA Name: R208					Date: 03/07/2012	
Attributes and Metrics		Scores		es	Comments	
Buffer and Landscape Contex						
Landscape Connectivity			12			
Buffer submetric A:						
Percent of AA with Buffer	12				100% with buffer	
Buffer submetric B: Average	_					
Buffer Width	3				Avg=9.6m	
Buffer submetric C: Buffer	2					
Condition	3					
$D + [C \times (A \times B)^{\frac{1}{2}}]^{\frac{1}{2}} = Attribu$	ite Score	Raw		Final	Final Attribute Score =	
	ite ocore	16.2		67.5	(Raw score/24)100	67.5
Hydrology						
	er Source		6			
Hydroperiod or Channe	el Stability		9			
Hydrologic Con	nnectivity		9		Entrenchment Ratio=1.98	
Attribute Score		Raw		Final	Final Attribute Score =	
Attiibu	ie score	24		66.7	(Raw Score/36)100	66.7
Physical Structure						
Structural Patch	Richness		6		1 patch type	
Topographic C	Topographic Complexity		9			
A 44 :: 11	ite Score	Raw		Final	Final Attribute Score =	
Aunou	ne Score	15		62.5	(Raw Score/24)100	62.5
Biotic Structure	"					
Plant Community submetric A:						
Number of Plant Layers	9				1 layer	
Plant Community submetric B:						
Number of Co-dominant species	6				1 co-dominant sp.	
Plant Community submetric C:	_					
Percent Invasion	9				0% non-native spp.	
	Plant Community Metric		_			
(average of submetrics A-C)			8			
Horizontal Interspersion and Zonation			9			
Vertical Biotic Structure			9			
Attribu	ite Score	Raw		Final	Final Attribute Score =	
		26		72.2	(Raw Score/36)100	72.2
Overall AA Score (Avera	age of Fina	ıl Attrib	ute	Scores	3)	
	U				67.2	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments			

BIOTIC STRUCTURE ATTRIBUTE	Present and likely	Significant
(WITHIN 50 M OF AA)	to have negative	negative
,	effect on AA	effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture			
Orchards/nurseries			
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor			
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			

	Your Name: A. Langston					
	CRAM Site ID: FB HST					
	essment Area N					
Date	e (mm/dd/yyy	y): 03/07/2012				
		Members for T	his AA			
A. La	ngston, G. Perac	ca, C. Roberts				
A	verage Bankfu	ıll Width: 6m				
A	pproximate Le	ength of AA (10	times bankfull widt	h, min 100 m, max 2	00 m): 100 m	
W	etland Sub-typ	oe:				
		X Confined	[] Non-conf	ined		
A	A Category:					
	[] Restoration	n []]	Mitigation	X Impacted	[] Other	
D	id the river/str	ream have flowi	ng water at the time	e of the assessment?	X yes [] no	
What is the apparent hydrologic flow regime of the reach you are assessing? The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.						
	X per	rennial	[] ephemeral	[] intermittent		
P	noto Identifica	tion Numbers a	and Description:			
	Photo ID No.	Description	Latitude	Longitude	Datum	
1	N/A	North				
2	N/A	South				
3	1694	East				
4	1693	West				

AA Name: R209					Date: 03/07/2012	
Attributes and Metrics		Scores		es	Comments	
Buffer and Landscape Contex	t					
Landscape Conne		1	L2			
Buffer submetric A:						
Percent of AA with Buffer	9				50% with buffer	
Buffer submetric B: Average	_					
Buffer Width	3				Avg=8 meters	
Buffer submetric C: Buffer						
Condition	3					
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribut$	ite Score	Raw		Final	Final Attribute Score =	
	ite ocore	15.9		66.3	(Raw score/24)100	66.3
Hydrology	T.					
	er Source		6		Isolated from surrounding	0
Hydroperiod or Channe			3		Fed by pumped groundy	vater.
Hydrologic Con	nnectivity		6		Entrenchment Ratio=1.39	
Attribu	Attribute Score			Final	Final Attribute Score =	
Attiibu	ite Score	15		41.7	(Raw Score/36)100	41.7
Physical Structure						
Structural Patch Richness			3		1 patch type	
Topographic Complexity			6			
A ++mila.	ite Score	Raw		Final	Final Attribute Score =	
Attribu	ite score	9		37.5	(Raw Score/24)100	37.5
Biotic Structure						
Plant Community submetric A:						
Number of Plant Layers	6				1 layer	
Plant Community submetric B:	_					
Number of Co-dominant species	3				1 co-dominant sp.	
Plant Community submetric C:	4.2					
Percent Invasion	12				0% invasion	
Plant Commun			7			
(average of submetrics A-C)						
Horizontal Interspersion and Zonation Vertical Biotic Structure			3			
Vertical Biotic	Structure		3	T' 1	E' 1 A '1 C	
Attribute Score		Raw		Final	Final Attribute Score =	
		13		36.1	(Raw Score/36)100	36.1
Overall AA Score (Avera	age of Fina	ıl Attribi	ute	Scores)	
					45.4	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)	Х		
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)	Х		
Trash or refuse			
Comments			
Nutrient impaired (sulfur smell within feature) potential inpu	ts picked up from ad	jacent feedlot.	

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	<u>.</u>	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture	Х	Х	
Orchards/nurseries			
Commercial feedlots	Х		
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)	Х		
Transportation corridor			
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			
Agriculture occupies 100% of surrounding land uses. Even though th	ne feature was created	for agriculture	

it is significantly negatively affected by the Intensive row-crop agriculture, specifically.

You	Your Name: A. Langston						
CRA	CRAM Site ID: FB HST						
Asse	essment Area N	Name: R211					
Date	e (mm/dd/yyy	y): 03/05/2012					
Asse	essment Team	Members for T	his AA				
A. La	ngston, G. Perac	ca, C. Roberts					
A	verage Bankfu	ıll Width: 8 mete	ers				
			4:	1	200 \- 100		
A	pproximate Le	ingth of AA (10	times bankfull widt	n, min 100 m, max	2 00 m): 100 m		
W	etland Sub-typ	e:					
		X Confined	[] Non-conf	ined			
			[]11011 00111				
A	A Category:						
	[] Restoration	n []]	Mitigation	X Impacted	[] Other		
D	id the river/str	eam have flowi	ng water at the time	e of the assessment	? [] yes X no		
W	hat is the appa	arent hydrologic	c flow regime of the	reach you are asses	ssing?		
The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.							
	[] perennial [] ephemeral X intermittent						
P		tion Numbers a	and Description:				
	Photo ID No.	Description	Latitude	Longitude	Datum		
1	1674	Southeast					
2	1675	Northeast					
3	N/A	East					
4	N/A	West					

AA Name: R211					Date: 03/05/2012	
Attributes and Metrics		Scores		es	Comments	
Buffer and Landscape Contex						
Landscape Conne			6			
Buffer submetric A:						
Percent of AA with Buffer	12				100% with buffer	
Buffer submetric B: Average						
Buffer Width	3				Avg =5.4 meters	
Buffer submetric C: Buffer	2					
Condition	3				T: 1 4 '1 0	
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribu$	ite Score	Raw		Final	Final Attribute Score =	
		10.2		42.5	(Rawcore/24)100	42.5
Hydrology						
	ter Source		6			
Hydroperiod or Channe			3		Not a natural feature	
Hydrologic Co	nnectivity	Raw	6		Entrenchment Ratio=1.45	
Attribu	Attribute Score			Final	Final Attribute Score =	
	ite beore	15		41.7	(Raw Score/36)100	41.7
Physical Structure						
Structural Patch Richness			6		4 patch types	
Topographic Complexity			9			
Attribu	ite Score	Raw		Final	Final Attribute Score =	
	ne beore	15		62.5	(Raw Score/24)100	62.5
Biotic Structure						
Plant Community submetric A:						
Number of Plant Layers	6				1 layer	
Plant Community submetric B:	2					
Number of Co-dominant species	3				1 dominant sp.	
Plant Community submetric C:	12				2011	
Percent Invasion					0% invasion	
Plant Commun			7			
(average of subm Horizontal Interspersion and			3			
Vertical Biotic			3			
vertical Blotic	Situcture	D -	<u> </u>	T2:1	Final Attribute Score =	
Attribu	ite Score	Raw 13	-	Final 36.1	(Raw Score/36)100	26.1
					, ,	36.1
Overall AA Score (Avera	age of Fina	ıl Attrib	ute	Scores	AE 7	
					45.7	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)	Х	
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology	X	
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)	Х	
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse	Х	
Comments		

negative ect on AA
ect on AA

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	
Commercial feedlots	Х	
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

Your Name: G. Peracca						
CRAM Site ID: FB HST						
Asse	Assessment Area Name: R212					
Date	e (mm/dd/yyy	y): 03/05/2012				
Asse	essment Team	Members for T	his AA			
C. Ro	berts, A. Langsto	on, G. Peracca				
A	verage Bankfı	ıll Width: 8 met	ers			
A	pproximate Le	ength of AA (10	times bankfull widt	h, min 100 m, max	200 m): 100 m	
W	etland Sub-typ	oe:				
		X Confined	[] Non-conf	ined		
A	A Category:					
	[] Restoration [] Mitigation X Impacted [] Other					
Did the river/stream have flowing water at the time of the assessment? [] yes X no						
What is the apparent hydrologic flow regime of the reach you are assessing? The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.						
[] perennial [] ephemeral X intermittent *artificially filled for ag.					rtificially filled for ag.	
\mathbf{P}_{1}	hoto Identifica	tion Numbers	and Description:			
	Photo ID No.	Description (facing)	Latitude	Longitude	Datum	
1	1670	SE				
2	1671	NE				
3	1672	SW				
4	1673	NW				

AA Name: R212					Date: 03/05/2012	
Attributes and Metrics		Scores		es	Comments	
Buffer and Landscape Contex	t					
Landscape Connectivity		12				
Buffer submetric A:						
Percent of AA with Buffer	12				100% with buffer	
Buffer submetric B: Average						
Buffer Width	3				Avg=10.6 meters	
Buffer submetric C: Buffer	2					
Condition	3				Buffer = unvegetated	
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribu$	ite Score	Raw	_	Final	Final Attribute Score =	
	ne ocore	16.2		67.5	(Rawcore/24)100	67.5
Hydrology						
	ter Source	6			20% of AA adjacent to active ag	
Hydroperiod or Channe		3				
Hydrologic Co	nnectivity		6		Entrenchment Ratio=1.4	
Attribute Score		Raw		Final	Final Attribute Score =	
Attribu	iic Score	15		41.7	(Raw Score/36)100	41.7
Physical Structure						
Structural Patch	Richness		3			
Topographic Complexity			3			
Attribute Score-		Raw		Final	Final Attribute Score =	
Attribu	ite score	6		25	(Raw Score/24)100	25
Biotic Structure						
Plant Community submetric A:						
Number of Plant Layers	6				1 Layer	
Plant Community submetric B:						
Number of Co-dominant species	3				1 co-dominant sp.	
Plant Community submetric C:	12					
Percent Invasion	12				0% invasion	
Plant Community Metric			7			
(average of submetrics A-C)						
Horizontal Interspersion and Zonation			3			
Vertical Biotic Structure			3	D' 1	E'1 A 1	
Attribute Score		Raw	-	Final	Final Attribute Score =	26.4
		13		36.1	(Raw Score/36)100	36.1
Overall AA Score (Avera	age of Fina	ıl Attribı	ıte	Scores)	
,					42.6	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)	Х	
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	X	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology	X	Х
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)	Х		
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments	·		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Mowing, grazing, excessive herbivory (within AA)			
Excessive human visitation			
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)			
Tree cutting/sapling removal			
Removal of woody debris			
Treatment of non-native and nuisance plant species			
Pesticide application or vector control	Х		
Biological resource extraction or stocking (fisheries, aquaculture)			
Excessive organic debris in matrix (for vernal pools)			
Lack of vegetation management to conserve natural resources			
Lack of treatment of invasive plants adjacent to AA or buffer			
Comments	·		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture	Х		
Orchards/nurseries	Х		
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor	Х		
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			
	·		

Basic Information Sheet: Riverine Wetlands

	Your Name: A. Langston					
CRA	CRAM Site ID: FB HST					
Asse	Assessment Area Name: R213					
Dat	e (mm/dd/yyy	y): 03/05/2012				
		Members for T	his AA			
C. Ro	berts, A. Langsto	on, G. Peracca				
A	verage Bankfu	ıll Width: 6 m				
A	pproximate Le	ength of AA (10	times bankfull widt	h, min 100 m, max 2	200 m): 100 m	
W	etland Sub-typ	oe:				
		X Confined	[] Non-conf	ined		
A	A Category:					
	[] Restoration	n []]	Mitigation	X Impacted	[] Other	
D	id the river/str	eam have flowi	ing water at the time	e of the assessment?	P [] yes X no	
Tł wa du ye	What is the apparent hydrologic flow regime of the reach you are assessing? The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.					
	[] perennial [] ephemeral X intermittent					
p	Photo Identification Numbers and Description:					
	Photo ID	Description	•			
	No.	(facing)	Latitude	Longitude	Datum	
1	1665	NE S/				
2	1666	NW				
3	1667	SW				
4	1668	SE				

Scoring Sheet: Riverine Wetlands

AA Name: R213					Date: 03/05/2012	
Attributes and Metrics		Scores		es	Comments	
Buffer and Landscape Context						
Landscape Connectivity			12			
Buffer submetric A:						
Percent of AA with Buffer	9				50% with buffer	
Buffer submetric B: Average						
Buffer Width	3				Avg=11 meter	
Buffer submetric C: Buffer						
Condition	3					
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribut$	ite Score	Raw		Final	Final Attribute Score =	
	ite ocore	15.9		66.3	(Rawcore/24)100	66.3
Hydrology						
	ter Source		6			
Hydroperiod or Channe	,		3		Hydromodification	
Hydrologic Co	nnectivity		6		Entrenchment Ratio=1.46	
Attribu	ite Score	Raw		Final	Final Attribute Score =	
Attribu	ite score	15		41.7	(Raw Score/36)100	41.7
Physical Structure						
Structural Patch	Richness		3			
Topographic C	omplexity		3			
A ++mila.	ite Score	Raw		Final	Final Attribute Score =	
Attribu	ite score	6		25	(Raw Score/24)100	25
Biotic Structure						
Plant Community submetric A:						
Number of Plant Layers	6				1 Layer	
Plant Community submetric B:	_					
Number of Co-dominant species	3				2 co-dominant spp.	
Plant Community submetric C:	4.2					
Percent Invasion	12				0% invasion	
Plant Commun			7			
(average of subm			7			
Horizontal Interspersion and			3			
Vertical Biotic	Structure		3	D. .	E' 1 A '1 C	
Attribute Score		Raw		Final	Final Attribute Score =	
		13		36.1	(Raw Score/36)100	36.1
Overall AA Score (Avera	age of Fina	ıl Attrib	ute	Scores)	
`					42.3	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE	Present and likely	Significant
(WITHIN 50 M OF AA)	to have negative	negative
(WITHIN 30 M OF AA)	effect on AA	effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology	Х	
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)	Х	
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments	•	

BIOTIC STRUCTURE ATTRIBUTE	Present and likely	Significant
	to have negative	negative
(WITHIN 50 M OF AA)	effect on AA	effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control	Х	
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture	Х		
Orchards/nurseries	Х		
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor	Х		
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			
	·		

Basic Information Sheet: Riverine Wetlands

You	r Name: J.n Wh	itfield					
CRA	CRAM Site ID: FB HST						
Asse	Assessment Area Name: R220						
Date	e (mm/dd/yyy	y): 03/09/2012					
Asse	essment Team	Members for T	his AA				
A. La	ngston, G. Perac	ca, C. Roberts, J. \	Whitfield				
A	verage Bankfu	ıll Width: varies;	; approximately 13 m -	20 m			
A	pproximate Le	ngth of AA (10	times bankfull widt	h, min 100 m, max	200 m): 200 m		
W	etland Sub-typ						
		[] Confined	X Non-confine	ed			
A	A Category:						
	[] Restoration	n []]	Mitigation	[] Impacted	X Other		
D	id the river/str	eam have flowi	ng water at the time	e of the assessment	? [] yes X no		
Th wa du yea	What is the apparent hydrologic flow regime of the reach you are assessing? The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.						
	[] perennial [] ephemeral X intermittent						
P		tion Numbers a	and Description:				
	Photo ID No.	Description	Latitude	Longitude	Datum		
1	1725	North					
2	1726	South					
3	1727	East					
4	1728	West					

Scoring Sheet: Riverine Wetlands

AA Name: R220				Date: 03/09/2012	
Attributes and Metrics		Scores		Comments	
Buffer and Landscape Contex	t				
Landscape Conne	ctivity	-	12		
Buffer submetric A:					
Percent of AA with Buffer	9			50% with buffer	
Buffer submetric B: Average	_				
Buffer Width	6			Avg=112.5 meter	
Buffer submetric C: Buffer	6				
Condition	6		T		
$D + [C \times (A \times B)^{\frac{1}{2}}]^{\frac{1}{2}} = Attribu$	ite Score	Raw	Final	Final Attribute Score =	
	ite ocore	18.6	77.5	(Raw score/24)100	77.5
Hydrology	T.				
	er Source		6		
Hydroperiod or Channe			9		
Hydrologic Cor	nnectivity		12	Entrenchment Ratio= 3.8	2
Attribu	te Score	Raw	Final	Final Attribute Score =	
Attiibu	ite score	18	75	(Raw Score/36)100	75
Physical Structure					
Structural Patch	Richness		6	6 patch types	
Topographic C	omplexity	:	12		
A ++mila.	ite Score	Raw	Final	Final Attribute Score =	
Attribu	ite score	18	75	(Raw Score/24)100	75
Biotic Structure					
Plant Community submetric A:					
Number of Plant Layers	9			3 Layers	
Plant Community submetric B:					
Number of Co-dominant species	6			8 co-dominant spp.	
Plant Community submetric C:					
Percent Invasion	9			25% invasion	
Plant Commun			0		
(average of subm			8		
Horizontal Interspersion and			9	½ AA = 12; ½ AA =6. Avg=	9
Vertical Biotic Structure			6	E. 1.4. 11. 0	
Attribu	ite Score	Raw	Final	Final Attribute Score =	
		23	63.9	(Raw Score/36)100	63.9
Overall AA Score (Avera	age of Fina	ıl Attribu	ite Scores		
`				72.9	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)	Х	
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	X	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments			

BIOTIC STRUCTURE ATTRIBUTE	Present and likely	Significant	
(WITHIN 50 M OF AA)	to have negative	negative	
, ,	effect on AA	effect on AA	
Mowing, grazing, excessive herbivory (within AA)			
Excessive human visitation	X		
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)			
Tree cutting/sapling removal			
Removal of woody debris			
Treatment of non-native and nuisance plant species			
Pesticide application or vector control			
Biological resource extraction or stocking (fisheries, aquaculture)			
Excessive organic debris in matrix (for vernal pools)			
Lack of vegetation management to conserve natural resources			
Lack of treatment of invasive plants adjacent to AA or buffer			
Comments			

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture			
Orchards/nurseries	Х		
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor			
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)	Х		
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			

CRA	M Site ID: AP	N: 331-080-001			
Proje	ct Site ID: Fro	esno to Bakersfield	HST		
Asse	ssment Area	Name: V62A			
Proje	ct Name: Fre	sno to Bakersfield I	HST	Date (m/d/y)	9 29 11
Asse	ssment Team	Members for Th	nis AA		
G. Pe	racca				
C. Rol	perts				
	and Category X Natural	: □ Constructed	□ Restoratio	n (Rehabilitation OR Er	nhancement)
If Cr		ored, does the ac	_	ass: on of the wetland	
Wha		es the hydrologic ed/inundated		wetland at the time of a bil, but no surface water	ssessment? X dry
Wha	is the appare	ent hydrologic re	gime of the w	retland?	
	□ long-du		ium-duration		
	·	□ yes	X no	oodplain of a nearby str	eam?
Ph	oto Identifica	ation Numbers a	nd Descriptio	n:	
	Photo ID No.	Description	Latitude	Longitude	Datum
1	1314	North			
2	1312	South			
3	1313	East			
4	1311	West			
5					
6					
*Apri CRAN	•	d using new Individ n old VP module V. 72.6		(V. 6.0).	

AA Name: V62A		(m/d/y)	09/29/2011				
Attributes and Metrics Alpha. Numeric						Comments	
Buffer and Landscape Conte							
(A) Aquatic A	rea Con	nectivity	В	9	Avg=18%		
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	В	9			Avg=186m		
(D): Buffer Condition	В	9					
Initial Attribute Score =	A + [D	x (B x C) ^{1/2}] ^{1/2}	18.7		ribute Score = ore/24) x 100	77.8
Hydrology							
	er Source	Α	12				
	Α	12					
Hydrolo	gic Con	nectivity	В	9			
Initial .		33		ribute Score = ore/36) x 100	91.7		
Physical Structure							
Structura	l Patch !	Richness	С	6	3 patch typ	oes	
Topogra	phic Co	mplexity	C	6			
Initial .	Attribu	te Score		12		ribute Score = ore/24) x 100	50
Biotic Structure							
Horizontal Interspersion and Z	Conation	1	В	9			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	В	9			4 co-domii	nant spp.	
Community composition submetric	_						
B: Percent Non-native	Α	12			0% non-na	itive spp.	
Community Composition submetric C: Endemic Species Richness	D	3			0 endemic	spp.	
Plant Community Con	npositio	n Metric					
(numeric average o	_			8			
Initial .	Initial Attribute Score					ribute Score = ore/24) x 100	70.8
Overall AA Score (Av	Attribut	e Scores)		72.6			

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Levee = railroad berm upstream of AA, not significant stressor-	AA appears	to be receiving
sufficient water.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)	Х	
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management	Х	
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		
Veg management occurs along RR ROW but ROW is separated	from AA by b	ermand gravel road
(it is just at 50 m boundary) and veg. in AA is all native, undistu	rbed.	

BIOTIC STRUCTURE ATTRIBUTE	Present	Present and Likely to Have Significant	
(WITHIN 50 M OF AA)		negative effect on AA	
Mowing, grazing, excessive herbivory (within AA)			
Excessive human visitation			
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)			
Tree cutting/sapling removal			
Removal of woody debris			
Treatment of non-native and nuisance plant species	Х		
Pesticide application or vector control	Х		
Biological resource extraction or stocking (fisheries, aquaculture)			
Excessive organic debris in matrix (for vernal pools)			
Lack of vegetation management to conserve natural resources			
Lack of treatment of invasive plants adjacent to AA or buffer			
Comments			
See comment for Physical Structure Attribute re: veg mgmt ald	ong RR ROW.		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	X
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		
Trans. Corridor = RR and Hwy. They have had effect on landscape	e connectiv	ity for site.

CRA	M Site ID: AF	N: 331-100-030					
Proje	ct Site ID: Fr	esno to Bakersfield	HST				
Asses	ssment Area	Name: V65					
Proje	ct Name: Fre	sno to Bakersfield I	HST	Date (m/d/y)	9	29	11
Asses	ssment Team	Members for Th	nis AA				
G. Per							
C. Rok	perts						
Wetla	and Category	•					
		□ Constructed	□ Restoration	(Rehabilitation OR	.Enhance	ement)	
If Cr	eated or Rest	ored, does the ac	tion encompa	66.			
11 01		entire wetland	-	on of the wetland			
			_				
What	best describ	es the hydrologic	state of the w	etland at the time o	of assessr	ment?	
		ed/inundated		il, but no surface wat		dry	
What	is the appare	ent hydrologic re	gime of the wo	etland?			
	□ long-du	ration medi	ium-duration	X short-duration			
Does	the vernal po	ool system conne	ct with the flo	odplain of a nearby	stream?		
		•	X no				
Ph		ation Numbers a	_				
	Photo ID No.	Description	Latitude	Longitude	-	Datum	
1	1324	North					
2	1322	South					
3	1323	East					
4	1321	West					
5							
6							
Com	ments:	L	L	L			
		d using new Individ	ual VP Module (V. 6.0).			
-	•	n old VP module V.	-	- 1			
	CRAM score = 7						
,							

AA Name: V65		(m/d/y)	09/29/2011				
Attributes and Metrics				Numeric		Comments	
Buffer and Landscape Conte							
(A) Aquatic A	rea Con	nectivity	Α	12	Avg=24.5%	6	
	Alpha. Numeric						
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	А	12			Avg=211m	1	
(D): Buffer Condition	В	9					
Initial Attribute Score =	A + [D	v (B v C	\ ^{1/2} 1 ^{1/2}		Final Attr	ribute Score =	
Illitial Attribute Score –		ух (БхС	7]	22.4	(Initial Sc	ore/24) x 100	93.3
Hydrology							
Water Source			Α	12			
	roperiod	Α	12				
Hydrolo	gic Con	nectivity	В	9		_	
Initial	33			ribute Score = ore/36) x 100	91.7		
Physical Structure						-,,	0
Structura	l Patch 1	Richness	С	6	3 patch typ	oes	
Topogra	phic Co	mplexity	С	6	7.		
		<u> </u>		ı	Final Attr	ribute Score =	
Initial	Attribu	te Score		12	(Initial Sc	ore/24) x 100	50
Biotic Structure							
Horizontal Interspersion and Z	Conation	า	В	9			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	В	9			5 co-domir	nant spp.	
Community composition submetric							
B: Percent Non-native	Α	12			0% non-na	tive spp.	
Community Composition submetric	,				0		
C: Endemic Species Richness	<u>D</u>	3			0 endemic	spp.	
Plant Community Con	-			8			
(numeric average	oj suvmel	ms A-C)		<u> </u>	Final Atte	ribute Score =	
Initial	Attribu	te Score		17		ore/24) x 100	70.8
Overall AA Score (Av	Attribut	e Scores)		76.4			

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE	D .	Present and likely to have significant	
(WITHIN 50 M OF AA)	Present	negative effect on	
·		AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)	Х		
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments			

		Present and Likely		
BIOTIC STRUCTURE ATTRIBUTE	Present	to Have Significant		
(WITHIN 50 M OF AA)	Tieschi	negative effect on		
		AA		
Mowing, grazing, excessive herbivory (within AA)				
Excessive human visitation				
Predation and habitat destruction by non-native vertebrates (e.g.,				
Virginia opossum and domestic predators, such as feral pets)				
Tree cutting/sapling removal				
Removal of woody debris				
Treatment of non-native and nuisance plant species				
Pesticide application or vector control				
Biological resource extraction or stocking (fisheries, aquaculture)				
Excessive organic debris in matrix (for vernal pools)				
Lack of vegetation management to conserve natural resources				
Lack of treatment of invasive plants adjacent to AA or buffer				
Comments				
·				

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments	•	

CR	RAI	M Site ID: API	N: 333-130-004					
Pro	oje	ct Site ID: Fre	sno to Bakersfield	HST				
Ass	ses	sment Area N	Name: V70				_	
Pro	oje	ct Name: Fres	no to Bakersfield I	HST	Date (m/d/y)	9	21	11
			Members for Th	nis AA				
C. J	ulia	an		A. Langston				
J. L	ove	1		C. Roberts				
(Z.	Sim	mons-USACE)						
Wε	etla	nd Category:						
			□ Constructed	□ Restoration	(Rehabilitation OR	Enhance	ement)	
If (Cre	ated or Resto	ored, does the ac	tion encompas	ss:			
'	010		entire wetland	-	n of the wetland			
Wł	nat		•	state of the w	etland at the time o	of assessr	ment?	
		□ ponde	d/inundated	□ saturated soi	l, but no surface wat	er X	dry	
Wł	nat	is the appare	nt hydrologic re	gime of the we	etland?			
		11	, ,	9				
		□ long-dur	ration medi	um-duration	X short-duration			
Do	es	the vernal po	ol system conne	ct with the floo	odplain of a nearby	stream?		
			□ yes	X no				
_	D1	. T1 .**	.• TAT 1	1.15				
1 	Pno	Photo ID	tion Numbers as				D. 4	
		No.	Description	Latitude	Longitude	-	Datum	
-	1	1201	North					
	2	1203	South					
	3	1202	East					
	4	1204	West					
	5							
	6							
		ments:						
		•	using new Individ		V. 6.0).			
			n old VP module V.	5.0.3 = 55.7				
Nev	w C	RAM score = 56	5.7					
1								

AA Name: V70		(m/d/y)	09/21/2011				
Attributes and Me	trics		Alpha.	Numeric		Comments	
Buffer and Landscape Conte	ext						
(A) Aquatic A	rea Con	nectivity	D	3	Avg=0%		
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	Α	12			Avg=195m	1	
(D): Buffer Condition	В	9					
	A + F.D.	, /D, C	\ \\\^1/2 \ \mathref{1}\\\^1/2		Final Att	ribute Score =	
Initial Attribute Score =	ух (вх С)]	13.4	(Initial Sc	ore/24) x 100	55.8	
Hydrology	Hydrology					<u>.</u>	
	er Source	Α	12				
	В	9					
Hydrolo	gic Con	nectivity	С	6			
Initial				ribute Score =			
Intiar	Initial Attribute Score				(Initial Sc	ore/36) x 100	75
Physical Structure				1			
Structura	l Patch 1	Richness	D	3	2 patch ty	oes	
Topogra	phic Co	mplexity	С	6			
Initial	Attribu	te Score				ribute Score =	
				9	(Initial Sc	ore/24) x 100	37.5
Biotic Structure				1			
Horizontal Interspersion and Z		1	В	9			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	В	9			4 co-domii	nant spp.	
Community composition submetric B: Percent Non-native	0	2			75% non n	active con	
Community Composition submetric	D	3			75% non-r	iative spp.	
C: Endemic Species Richness	D	3			0 endemic	snn	
Plant Community Con					- CHACIME	~ P P .	
(numeric average	-			5			
, C		te Score		14		ribute Score = ore/24) x 100	58.3
Overall AA Score (Average of Final A						56.7	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE	Durana	Present and likely to have significant		
(WITHIN 50 M OF AA)	Present	negative effect on		
		AA		
Filling or dumping of sediment or soils (N/A for restoration areas)				
Grading/ compaction (N/A for restoration areas)	Х			
Plowing/Discing (N/A for restoration areas)				
Resource extraction (sediment, gravel, oil and/or gas)				
Vegetation management				
Excessive sediment or organic debris from watershed				
Excessive runoff from watershed				
Nutrient impaired (PS or Non-PS pollution)				
Heavy metal impaired (PS or Non-PS pollution)				
Pesticides or trace organics impaired (PS or Non-PS pollution)				
Bacteria and pathogens impaired (PS or Non-PS pollution)				
Trash or refuse				
Comments				

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets) Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

CRA	M Site ID:	APN: 333-130-004					
Proje	ect Site ID:	Fresno to Bakersfield	HST				
Asse	ssment Arc	ea Name: V72					
Proje	ect Name:	Fresno to Bakersfield	HST	Date (m/d/y)	9	21	11
Asse	ssment Te	am Members for T	his AA				
C. Jul	ian		A. Langston				
J. Lov	е		C. Roberts				
(Z. Sir	mmons-USA	CE)					
Wetl	and Catego	ory:					
	X Natural	□ Constructed	□ Restoration	(Rehabilitation OR	Enhance	ement)	
If Cr	eated or R	estored, does the a	ction encompa	ee•			
11 C1	cated of K	□ entire wetland	-	on of the wetland			
			r				
Wha	t hest desc	rihes the hydrologi	c state of the w	etland at the time o	of assess	ment?	
W IIa		nded/inundated		il, but no surface wat		dry	
	- P -		_ :	,			
Wha	t is the app	parent hydrologic re	egime of the w	etland?			
		, , .	8				
	□ long-	-duration □ med	lium-duration	X short-duration			
Does	the verna	l pool system conn	ect with the flo	odplain of a nearby	stream?		
Docs	tiic veilla	- •	s X no	ouplain of a hearby	sticaiii.		
		□ ye	3 X 110				
Ph	oto Identi	fication Numbers a	and Description	n:			
	Photo II	Description 1	Latitude	Longitude		Datum	
1	No.	Nouth					
$\frac{1}{2}$	1197 1199	North South			+		
3	1198	East					
4	1200	West					
5	1200	11000					
6							
Com	ments:	ı	·	ı			
*Apri	l 2012: upda	ated using new Individ	lual VP Module (V. 6.0).			
CRAN	1 score base	d on old VP module V	7. 5.0.3 = 66.0				
New	CRAM score	= 66.0					
1							

AA Name: V72		(m/d/y)	09/21/2011					
Attributes and Me	etrics		Alpha.	Numeric		Comments		
Buffer and Landscape Conte	ext							
(A) Aquatic A	rea Con	nectivity	D	3	Avg=3%			
	Alpha.	Numeric						
(B): Percent of AA with Buffer	Α	12			100% with	buffer		
(C): Average Buffer Width	Α	12			Avg=190m			
(D): Buffer Condition	В	9						
	/D <i>(</i>	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Final Attr	ribute Score =			
Initial Attribute Score =	х (вхс	•)]	13.4	(Initial Sc	ore/24) x 100	55.8		
Hydrology								
	Wate	er Source	Α	12				
	roperiod	В	9					
Hydrolo	nectivity	В	9					
Initial			Final Attr	ribute Score =				
Tintiar			30	(Initial Sc	ore/36) x 100	83.3		
Physical Structure			T	1				
Structura	l Patch l	Richness	D	3	2 patch typ	oes		
Topogra	phic Co	mplexity	В	9				
Initial	Attribu	te Score				ibute Score =		
				12	(Initial Sc	ore/24) x 100	50	
Biotic Structure				1				
Horizontal Interspersion and Z	Conation		Α	12				
Community composition submetric	Alpha.	Numeric						
A: Number of Co-dominants	Α	12			6 co-domii	nant spp.		
Community composition submetric	_				F00/ 12 212 12	ativo en a		
B: Percent Non-native	D	3			50% non-n	iative spp.		
Community Composition submetric C: Endemic Species Richness	D	3			0 endemic	snn		
Plant Community Con		1			o chaeinic	<u> </u>		
(numeric average	-			6				
, , ,		,			Final Attr	ribute Score =		
Initial	Attribu	te Score		18		ore/24) x 100	75	
Overall AA Score (Av	of Final	Attribut	e Scores)		66.0			

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)	Х	
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Road berm/levees are the source for both stressors.		

PHYSICAL STRUCTURE ATTRIBUTE	Dunnant	Present and likely to have significant
(WITHIN 50 M OF AA)	Present	negative effect on
	X	AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)	Х	
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse	Х	Х
Comments		
Trash scattered in wetland and dense dump across levee.		

BIOTIC STRUCTURE ATTRIBUTE	Present	Present and Likely to Have Significant		
(WITHIN 50 M OF AA)	1 icociit	negative effect on AA		
Mowing, grazing, excessive herbivory (within AA)				
Excessive human visitation				
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)				
Tree cutting/sapling removal				
Removal of woody debris				
Treatment of non-native and nuisance plant species				
Pesticide application or vector control				
Biological resource extraction or stocking (fisheries, aquaculture)				
Excessive organic debris in matrix (for vernal pools)				
Lack of vegetation management to conserve natural resources				
Lack of treatment of invasive plants adjacent to AA or buffer				
Comments				

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming	Х	
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments	•	
Suggestion of farming in last decade; not recent.		

CR	ΑN	M Site ID: AP	N: 333-130-006						
Pro	jeo	ct Site ID: Fro	esno to Bakersfield	HST					
Ass	es	sment Area	Name: V74						
Pro	jeo	ct Name: Fre	sno to Bakersfield I	HST	Date (m/d/y)	9	20	1	1
Ass	es	sment Team	Members for Th	nis AA					
C. Ju			11101115015 101 11	A. Langston					
J. Lo				C. Roberts					
J. LC	ve			C. Roberts					
We		nd Category	:						
	X	Natural	□ Constructed	□ Restoration	n (Rehabilitation OR	Enhanc	ement)		
If C	cre		ored, does the ac	-					
			entire wetland	□ portio	on of the wetland				
Wh	at	best describ	es the hydrologic	state of the w	etland at the time o	of assess	ment?		
		□ ponde	ed/inundated	□ saturated so	il, but no surface wat	er 🕽	(dry		
Wh	at	is the appare	ent hydrologic re	gime of the w	etland?				
			•						
		□ long-du	ration 🗆 med	ium-duration	X short-duration				
-		.4	•		111 0 1				
Do	es	the vernal po	•		odplain of a nearby	stream:			
			□ yes	X no					
D)h.	to Identifie	ation Numbers a	nd Deseminties					
Ī	110	Photo ID	Description	Latitude	Longitude		Datum		7
		No.	Description	Latitude	Longitude		Datum		
	1	1179	North						1
_	2	1181	South						1
_	3	1180	East						1
	4	1182	West						1
	5								1
	6								1
Cor	nr	nents:							
		•	d using new Individ		V. 6.0).				
			n old VP module V.	5.0.3 = 69.3					
New	v C	RAM score = 7	72.3						
ı									

AA Name: V74		(m/d/y)	09/20/2011				
Attributes and Me	Attributes and Metrics Al _l					Comments	
Buffer and Landscape Conte	ext						
(A) Aquatic A	rea Con	nectivity	D	3	Avg=1%		
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	Α	12	Avg=250m				
(D): Buffer Condition	В	9					
	A	, /D, /C	\ \\\^1/2 \ \ \\^1/2		Final Attı	ribute Score =	
Initial Attribute Score =	A + [D	ух (ВхС)]	13.4	(Initial Sc	ore/24) x 100	55.8
Hydrology				•			
	er Source	Α	12				
	Hydroperiod						
Hydrolo	В	9					
Initial	Initial Attribute Score					ribute Score =	02.2
DI 1 1 C.					(Initial Sc	ore/36) x 100	83.3
Physical Structure	ID : 1 :	n' 1			2		
Structura			C	6	3 patch typ	oes	
Topogra	phic Co	mplexity	Α	12	E' 1 A	"1	
Initial	Attribu	te Score		10		ribute Score = ore/24) x 100	75
Biotic Structure				18	(IIIIIIai SC	01c/24) x 100	75
Horizontal Interspersion and Z	Onation	1	Α	12			
Community composition submetric	Alpha.	Numeric		12			
A: Number of Co-dominants	С	6			3 co-domii	nant spp.	
Community composition submetric							
B: Percent Non-native	В	9			33% non-r	ative spp.	
Community Composition submetric							
C: Endemic Species Richness	D	3			0 endemic	spp.	
Plant Community Con							
(numeric average	of submei	trics A-C)		6		ı	
Initial .	Attribu	te Score		18		ribute Score = ore/24) x 100	75
Overall AA Score (Av	verage (of Final.	Attribut	e Scores)		72.3	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)	Х	
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE	Present	Present and likely to have significant
(WITHIN 50 M OF AA)		negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		7111
Grading/ compaction (N/A for restoration areas)	х	
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse	Х	
Comments	•	

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets) Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)	Х	
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		<u>. </u>
Hordeum is abundant.		
	<u> </u>	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming	Х	
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		1

CRA	M Site ID:	APN: 333-130-006					
Proje	ect Site ID:	Fresno to Bakersfield	HST				
Asse	ssment Are	ea Name: V75					
Proje	ect Name: 1	Fresno to Bakersfield I	HST	Date (m/d/y)	9	20	11
Asse	ssment Tea	am Members for Th	nis AA				
C. Jul	ian		A. Langston				
J. Lov	re e		C. Roberts				
Wetl	and Catego	ory:					
	X Natural	-	□ Restoration	(Rehabilitation OF	l Enhance	ement)	
If C	enated or D	patorod does the ac	tion oncompa	20.			
II CI	calcu of No	estored, does the ac	-	on of the wetland			
		- chure wettand	□ рогис	on or the wettand			
W/ha	t hoot door	wihaa tha budualaais	s atata of the w	estland at the time		monti	
WIIa		ribes the hydrologic nded/inundated		l, but no surface wat		dry	
		idea/ intilidatea	in saturated sor	ii, but no surface wat	CI X	adry	
Wha	t is the app	arent hydrologic re	gime of the we	etland?			
	T		•				
	□ long-	duration 🗆 med	ium-duration	X short-duration			
Does	s the vernal	pool system conne	ct with the flo	odplain of a nearby	stream?		
200.	y tile vellial	-	X no	suprain of a nearsy	ottowiii		
		,					
Pł		fication Numbers a	nd Description	n:			
	Photo ID No.	Description	Latitude	Longitude		Datum	
1	1183	North					
2	1185	South					
3	1184	East					
4	1186	West					
5							
6							
	ments:						
	•	ted using new Individ	•	V. 6.0).			
	/I score base CRAM score	d on old VP module V. – 66 0	. 5.0.3 = 66.1				
ivew	CIVAINI SCOLE	- 00.0					

AA Name: V75		(m/d/y)	09/20/2011				
Attributes and Me	trics		Alpha.	Numeric		Comments	
Buffer and Landscape Conte	ext						
(A) Aquatic A	rea Con	nectivity	D	3	Avg=1.8%		
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	Α	12	Avg=250m				
(D): Buffer Condition	В	9					
	A	/D C	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Final Attı	ribute Score =	
Initial Attribute Score =	х (ВхС	·)`]`	13.4	(Initial Sc	ore/24) x 100	55.8	
Hydrology				•		-	
	r Source	Α	12				
	Hydroperiod						
Hydrolo	В	9					
Initial			Final Attr	ribute Score =			
Illiuai .	te score		30	(Initial Sc	ore/36) x 100	83.3	
Physical Structure							
Structura	l Patch !	Richness	С	6	3 patch typ	oes	
Topogra	phic Co	mplexity	В	9			
Initial	Attribu	te Score				ribute Score =	
				15	(Initial Sc	ore/24) x 100	62.5
Biotic Structure				1			
Horizontal Interspersion and Z	Conation		В	9			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	С	6			3 co-domii	nant spp.	
Community composition submetric	D	_			220/ non n	ativo san	
B: Percent Non-native Community Composition submetric	В	9			33% non-r	iative spp.	
C: Endemic Species Richness	D	3			0 endemic	snn	
Plant Community Con					o chacinic	<u> </u>	
· · · · · · · · · · · · · · · · · · ·	(numeric average of submetrics A-C)						
, ,	te Score		6 15		ribute Score = ore/24) x 100	62.5	
Overall AA Score (Av	verage (of Final	ı		,	66.0	

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)	Х	
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE		Present and likely		
	Present	to have significant		
(WITHIN 50 M OF AA)		negative effect on		
		AA		
Filling or dumping of sediment or soils (N/A for restoration areas)				
Grading/ compaction (N/A for restoration areas)	Х			
Plowing/Discing (N/A for restoration areas)				
Resource extraction (sediment, gravel, oil and/or gas)				
Vegetation management				
Excessive sediment or organic debris from watershed				
Excessive runoff from watershed				
Nutrient impaired (PS or Non-PS pollution)				
Heavy metal impaired (PS or Non-PS pollution)				
Pesticides or trace organics impaired (PS or Non-PS pollution)				
Bacteria and pathogens impaired (PS or Non-PS pollution)				
Trash or refuse	Х			
Comments				

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets) Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming	Х	
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

CRA	M Site ID:	APN: 333-120-001						
Proje	ct Site ID:	Fresno to Bakersfield	HST					
Asse	ssment Are	a Name: V76A						
Proje	Project Name: Fresno to Bakersfield HST Date $(m/d/y)$ 9 19 11							
Asse	ssment Tea	am Members for Th	nis AA					
C. Juli	C. Julian A. Langston							
J. Lov	J. Love C. Roberts							
J. Wh	itfield							
Wetl	and Catego	ory:						
	X Natural □ Constructed □ Restoration (Rehabilitation OR Enhancement)							
If Cr	eated or Re	estored, does the ac	tion encompas					
II CI		□ entire wetland	-	n of the wetland				
			r					
W/hai	t hest descr	ribes the hydrologic	s state of the w	etland at the time (of access	ment?		
WIIA		nded/inundated		l, but no surface wat		X dry		
	= por	raca, manauca		, 200 110 0011000 was	.01	- uzy		
What	t is the app	arent hydrologic re	gime of the we	etland?				
			8					
	□ long-	duration X medi	um-duration	□ short-duration				
Door	4la a ==================================	mool overtoms commo	atith tha flac	dalaia of a maaah	Composets.			
Does	the vernai	pool system conne	X no	odpiain of a nearby	stream?			
		□ yes	X IIO					
Ph	oto Identif	ication Numbers a	nd Description	1;				
	Photo ID	Description	Latitude	Longitude		Datum		
	No.							
1	1171	North						
2	1173	South						
3	1172	East						
4	1174	West						
5								
6							L	
	ments:							
-	•	ted using new Individ	-	/. 6.0).				
CRAM score based on old VP module V. 5.0.3 = 57.8								
New	CRAM score	= 62.1						
1								

AA Name: V76A						(m/d/y) 09/19/2011		
Attributes and Metrics A				Numeric		Comments		
Buffer and Landscape Conte								
(A) Aquatic Area Connectivity				9	Avg=20.8%			
	Alpha.	Numeric						
(B): Percent of AA with Buffer	Α	12			100% with buffer			
(C): Average Buffer Width	Α	12			Avg=250m			
(D): Buffer Condition	С	6						
Initial Attribute Score =	Δ ⊥ [D	v (B v C	'\ ^{1/2} 1 ^{1/2}		Final Attr	ribute Score =		
Illitial Attribute Score –		ух (БхС	<i>()</i>]	14.6	(Initial Sc	ore/24) x 100	60.9	
Hydrology								
	Wate	er Source	Α	12				
		roperiod	В	9				
Hydrolo	gic Con	nectivity	В	9				
Initial	Attribu	te Score				ibute Score =		
			30		(Initial Sc	ore/36) x 100	83.3	
Physical Structure				1				
Structura			С	6	3 patch types			
Topogra	phic Co	mplexity	С	6				
Initial	Attribu	te Score				ribute Score =		
7				12	(Initial Sc	ore/24) x 100	50	
Biotic Structure								
Horizontal Interspersion and Z		1	В	9				
Community composition submetric	Alpha.	Numeric			2 oo domi			
A: Number of Co-dominants Community composition submetric	С	6			2 co-domii	iant spp.		
B: Percent Non-native	D	3			100% non-	native spp.		
Community Composition submetric						оррг		
C: Endemic Species Richness	D	3			0 endemic	spp.		
Plant Community Composition Metric								
(numeric average		4						
Initial	Attribu	te Score		13		ribute Score = ore/24) x 100	54.2	
Overall AA Score (Av	verage (of Final.				62.1		

Worksheet 8: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)	Х	
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Berm to east; road grade to south; not a significant effect.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments			

ficant
ct on

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming	Х	
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		•

Basic Information: Individual Vernal Pool

CRA	M Site ID:	APN: 333-120-001							
Proje	ct Site ID:	Fresno to Bakersfield	HST						
Asse	ssment Are	a Name: V76D							
Proje	ect Name: F	resno to Bakersfield I	HST	Date (m/d/y)	9	19	11		
Asse	ssment Tea	am Members for Th	nis AA						
C. Juli	an		A. Langston						
J. Lov	J. Love C. Roberts								
J. Wh	itfield								
Wetl	and Catego	ry:							
	X Natural	□ Constructed	□ Restoration	(Rehabilitation OR	l Enhanc	ement)			
It C*	aatad au Da	estared does the ac	tion on compa	200					
II CI		estored, does the ac	-	on of the wetland					
		a chare weather	2 porus	or the wetting					
W/ha	t boot dooor	ibos the budgelesis	o state of the w	retland at the time (monti			
w IIa		ided/inundated		il, but no surface wat		dry			
	□ por	idea, manaatea	in saturated 50.	n, but no surface wat		Cary			
Wha	t is the app	arent hydrologic re	gime of the we	etland?					
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, 10 tile upp	wro, wrog.c	8 01 0						
	□ long-	duration 🗆 medi	ium-duration	X short-duration					
Door	tho wornal	nool system sonns	at with the fle	odplain of a nearby	atroam				
Does	tile veillai	- •	X no	ouplain of a nearby	Sucami				
		□ yes	X 110						
Ph	oto Identif	ication Numbers a	nd Description	າ:					
	Photo ID	Description	Latitude	Longitude		Datum			
1	No.	Nouth							
$\frac{1}{2}$	1175 1177	North South							
3	1176	East							
4	1178	West			+				
5	1170								
6									
Com	ments:	ı	1						
*Apri	l 2012: upda [.]	ted using new Individ	ual VP Module (V. 6.0).					
CRAN	1 score based	d on old VP module V.	5.0.3 = 50.5						
New	CRAM score	= 59.8							
1									

Scoring Sheet: Individual Vernal Pools

AA Name: V76D		(m/d/y)	09/19/2011				
Attributes and Metrics				Numeric		Comments	
Buffer and Landscape Conte							
(A) Aquatic A	rea Con	nectivity	В	9	Avg=16%		
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	Α	12			Avg=250m	<u> </u>	
	_						
(D): Buffer Condition	В	9			T. 1 A	7	
Initial Attribute Score =	A + [D	х (ВхС	$\sum_{1}^{1/2} \frac{1}{1}$			ribute Score =	
		`	, ,	19.4	(Initial Sc	ore/24) x 100	80.8
Hydrology	****			1			
		er Source		12			
	roperiod		9				
Hydrolo	gic Con	nectivity	В	9			
Initial		30		ribute Score =			
					(Initial Sc	ore/36) x 100	83.3
Physical Structure			I	1			
Structura			С	6	3 patch types		
Topogra	phic Co	mplexity	С	6			
Initial	Attribu	te Score				ribute Score =	
				12	(Initial Sc	ore/24) x 100	50
Biotic Structure				1			
Horizontal Interspersion and Z			D	3			
Community composition submetric	Alpha.	Numeric			4 1 .		
A: Number of Co-dominants	D	3			1 co-domii	nant sp.	
Community composition submetric B: Percent Non-native	D	3			100% non	native spp.	
Community Composition submetric		3			100% 11011-	mative spp.	
C: Endemic Species Richness	D	3			0 endemic spp.		
Plant Community Con					o chacille	<u> </u>	
(numeric average				3			
, ,					Final Attr	ribute Score =	
Initial :	Attribu	te Score		6		ore/24) x 100	25
Overall AA Score (Av	of Final	Attribut			59.8		

Worksheet 8: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)	Х	
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Road berm.		

		Present and likely		
PHYSICAL STRUCTURE ATTRIBUTE	Present	to have significant		
(WITHIN 50 M OF AA)	Tresent	negative effect on		
		AA		
Filling or dumping of sediment or soils (N/A for restoration areas)				
Grading/ compaction (N/A for restoration areas)				
Plowing/Discing (N/A for restoration areas)				
Resource extraction (sediment, gravel, oil and/or gas)				
Vegetation management				
Excessive sediment or organic debris from watershed				
Excessive runoff from watershed				
Nutrient impaired (PS or Non-PS pollution)				
Heavy metal impaired (PS or Non-PS pollution)				
Pesticides or trace organics impaired (PS or Non-PS pollution)				
Bacteria and pathogens impaired (PS or Non-PS pollution)				
Trash or refuse				
Comments				

Present	Present and Likely to Have Significant negative effect on AA
<u>.</u>	
	Present

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming	Х	
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

Basic Information: Individual Vernal Pool

CRA	M Site ID: A	APN: 333-020-005					
Proje	ect Site ID: F	resno to Bakersfield	HST				
Asse	ssment Area	Name: V104					
Proje	ect Name: Fr	esno to Bakersfield I	HST	Date (m/d/y)	9	27	11
Asse	ssment Tear	m Members for Th	nis AA				
A. Laı	ngston						
G. Pe	racca						
C. Ro	berts						
	and Categor X Natural	y: □ Constructed	□ Restoration	n (Rehabilitation OR	Enhance	ement)	
If Cr		stored, does the ac	-	ss: on of the wetland			
Wha		bes the hydrologic ded/inundated		vetland at the time o		ment? dry	
	□ long-d		ium-duration		stream?		
Di	T1	,	X no				
Ph		cation Numbers a				D .	
	Photo ID No.	Description	Latitude	Longitude		Datum	
1	1278	North					
2	1280	South					
3	1179	East					
4	1181	West					
5							
6							
*Apri CRAN	•	ed using new Individ on old VP module V. 77.5		V. 6.0).			

Scoring Sheet: Individual Vernal Pools

AA Name: V104					(m/d/y)	09/27/2011	
Attributes and Metrics				Numeric		Comments	
Buffer and Landscape Conte							
(A) Aquatic A	rea Con	nectivity	Α	12	Avg=32.3%	6	
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	Α	12			Avg=199.4	m	
(D) D % (C 1):	_	_					
(D): Buffer Condition	В	9		1			
Initial Attribute Score =	x (B x C	$\binom{1}{2}^{1/2}$			ribute Score =		
	<u> </u>		, ı	22.4	(Initial Sc	ore/24) x 100	93.3
Hydrology			ı	1 .			
		er Source		12			
	roperiod	Α	12				
Hydrolo	gic Con	nectivity	Α	12		Ţ	
Initial		36		ribute Score =			
	Initial Attribute Score				(Initial Sc	ore/36) x 100	100
Physical Structure			ı		_		
Structura			D	3	2 patch ty	oes	
Topogra	phic Co	mplexity	В	9			
Initial	Attribu	te Score				ribute Score =	
				12	(Initial Sc	ore/24) x 100	50
Biotic Structure				1			
Horizontal Interspersion and Z			В	9			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	С	6			3 co-domii	nant spp.	
Community composition submetric		12			00/		
B: Percent Non-native	Α	12			0% non-na	itive spp.	
Community Composition submetric C: Endemic Species Richness	D	2			0 andomic	con	
Plant Community Con	D	n Motric			0 endemic	spp.	
(numeric average				7			
, ,					Final Att	ribute Score =	
Initial	te Score		16		ore/24) x 100	66.7	
Overall AA Score (Av	Overall AA Score (Average of Final					77.5	

Worksheet 8: Stressor Checklist.

Present	Present and likely to have significant negative effect on AA
Х	
nydrology.	
	X

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments			

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets) Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	•

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments	1	•
Within 500 m of orchard and HWY 43 and BNSF RR.		

Basic Information: Individual Vernal Pool

CRA	M Site ID: A	PN: 333-030-006			
Proje	ct Site ID: Fr	esno to Bakersfield	HST		
Asses	sment Area	Name: V114			
Proje	ct Name: Fre	esno to Bakersfield I	HST	Date (m/d/y)	9 22 11
Asses	sment Tean	n Members for Th	nis AA		
J. Lov			C. Julian		
A. Lar	gston		C. Roberts		_
W/otl/	and Category	7•			
	Matural	□ Constructed	□ Restoration	n (Rehabilitation OR En	nhancement)
If C	nated or Post	tored, does the ac	tion oncomp	100	
11 C10		entire wetland	-	on of the wetland	
		citate wettaria	□ poru	on of the wedard	
W/hat	host dosarih	oo the budgelesie	s state of the r	rotland at the time of a	
wnai		ed/inundated		vetland at the time of a oil, but no surface water	X dry
	□ роп а	ca, manaaca	iii saturated se	ni, but no surface water	X dry
W/hat	is the annar	ent hydrologic re	gime of the w	retland?	
w mai	is the appar	ent nydrologic re	gime of the w	Chand:	
	□ long-dı	aration □ meda	ium-duration	X short-duration	
	O				
D	.1 1	1 ,		11' 6 1	
Does	the vernal p	•		oodplain of a nearby str	eam?
		□ yes	X no		
Ph	oto Identific	ation Numbers a	nd Descriptio	n:	
	Photo ID	Description	Latitude	Longitude	Datum
	No.	_		_	
1	1220	North			
2	1222	South			
3	1121	East			
4	1123	West			
5 6					
_	montor				
	ments:	d using new Individ	ual VD Madula	(\(6 0 \)	
-		a using new individi on old VP module V.		(v. 0.0).	
	CRAM score =		5.0.5 – 70.5		
	5.0 (14) 50010 -				

Scoring Sheet: Individual Vernal Pools

AA Name: V114		(m/d/y)	09/22/2011				
Attributes and Metrics Alpha. Numeric						Comments	
Buffer and Landscape Conte							
(A) Aquatic A	rea Con	nectivity	Α	12	Avg=28.8%	6	
(B): Percent of AA with Buffer A 12					100% with	buffer	
(C) A D (C W) I	_	_					
(C): Average Buffer Width	В	9			Avg=143.1	m	
(D): Buffer Condition	В	9					
Initial Attribute Score =	Λ + I D	N	\ ¹ / ₂ 1 ¹ / ₂		Final Attr	ribute Score =	
Illitial Attribute Score –	Δ - [D	и (БхС	7]	21.7	(Initial Sc	ore/24) x 100	90.3
Hydrology							
	Water Source						
	roperiod	В	9				
Hydrolo	Hydrologic Connectivity						
Initial	Initial Attribute Score					ribute Score = ore/36) x 100	83.3
Physical Structure				30	(IIIIIIai SC	01c/ 30) x 100	63.3
Structura	l Patch	Richness	D	3	2 patch typ	nes	
Topogra			A	12	_ pate typ		
		<u> </u>			Final Attr	ribute Score =	
Initial.	Attribu	te Score		15		ore/24) x 100	62.5
Biotic Structure						,	
Horizontal Interspersion and Z	Conation	n	Α	12			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	В	9			5 co-domir	nant spp.	
Community composition submetric							
B: Percent Non-native	Α	12			0% non-na	tive spp.	
Community Composition submetric	_						
C: Endemic Species Richness	D	3			0 endemic	spp.	
Plant Community Con	-						
(numeric average	oj suomei	irics A-C)		8	Einal Att	ibuto Sasas —	
Initial .	Attribu	te Score		20		ribute Score = ore/24) x 100	83.3
Overall AA Score (Av	erage (of Final	Attribut	e Scores)		79.9	

Worksheet 8: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Road berm for SR43.		

PHYSICAL STRUCTURE ATTRIBUTE		Present and likely to have significant
(WITHIN 50 M OF AA)	Present	negative effect on
(**************************************		AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)	Х	
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		
Road berm for SR43.		

Present	Present and Likely to Have Significant negative effect on AA
	•
	Present

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		
SR43 and BNSF corridor (less than 5 meters west of AA)		

Basic Information: Individual Vernal Pool

CR	Αl	A Site ID: AP	N: 333-030-006								
Pro	je	et Site ID: Fre	sno to Bakersfield	HST							
Ass	ses	sment Area N	Name: V115A								
Pro	Project Name: Fresno to Bakersfield HST Date $(m/d/y)$ 9 27 11										
	Assessment Team Members for This AA										
G. F	er	асса									
		gston									
C. R	lob	erts									
We		nd Category: Natural	□ Constructed	□ Restoration	n (Rehabilitation OF	R Enhance	ement)				
If C	Cre		ored, does the ac	_	ss: on of the wetland						
Wh	at		es the hydrologic d/inundated		vetland at the time of il, but no surface wat		ment? dry				
Do	es	□ long-dun	ool system conne	ct with the floo	X short-duration odplain of a nearby	stream?					
I	Pho	oto Identifica	tion Numbers a	nd Description	n:						
		Photo ID No.	Description	Latitude	Longitude		Datum				
	1	1254	North	35.80273	-119.35871						
	2	1257	outh								
	3	1155	East								
	4	1156	West								
	5										
	6										
*Ap	oril AM	•	using new Individ n old VP module V. 0.9	-	V. 6.0).						

Scoring Sheet: Individual Vernal Pools

AA Name: V115A		(m/d/y)	09/27/2011					
Attributes and Metrics Alpha.						Comments		
Buffer and Landscape Conte								
(A) Aquatic A	rea Con	nectivity	Α	12	Avg=51%			
	Alpha.	Numeric						
B): Percent of AA with Buffer A 12					100% with	buffer		
(C): Average Buffer Width	В	9			Avg=186.9	m		
(D). Rayfor Condition	В	9						
(D): Buffer Condition	Б	9			Dinal Att	ribute Score =		
Initial Attribute Score =	A + [D	х (ВхС	$\sum_{j=1}^{1/2} j^{-1/2}$	24.7		ore/24) x 100	00.2	
II-duala a				21.7	(IIIIIIIII SC	01C/ 24) X 100	90.3	
Hydrology	Wat	r Source	Α	12				
		12						
Hardwolo	roperiod		12					
Hydrolo	gic Con	nectivity	Α	12	E' 1 A	"1 , C _		
Initial		20		ribute Score =	100			
Physical Structure				36	(IIIIIIai SC	ore/36) x 100	100	
Structura Structura	1 Datch	Richness	D	3	2 natch tvi	200		
Topogra			A	12	2 patch types			
1000812	pine Co	прихи	_ A	12	Final Att	ribute Score =		
Initial	Attribu	te Score		15		ore/24) x 100	62.5	
Biotic Structure				13	(IIIIai Se	010, 21) 11 100	02.5	
Horizontal Interspersion and Z	Zonation	1	В	9				
Community composition submetric	Alpha.	Numeric						
A: Number of Co-dominants	В	9			5 co-domii	nant spp.		
Community composition submetric								
B: Percent Non-native	Α	12			20% non-r	ative spp.		
Community Composition submetric								
C: Endemic Species Richness	D	3			0 endemic	spp.		
Plant Community Con								
(numeric average	of submei	trics A-C)		8				
Initial	Attribu	te Score		17		ribute Score = ore/24) x 100	70.8	
Overall AA Score (Av	Overall AA Score (Average of Final					80.9		

Worksheet 8: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
SR43 is about 50 meters away.		

		Present and likely
PHYSICAL STRUCTURE ATTRIBUTE	Present	to have significant
(WITHIN 50 M OF AA)	Tiesent	negative effect on
		AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments	•	

		Present and Likely	
BIOTIC STRUCTURE ATTRIBUTE	Present	to Have Significant	
(WITHIN 50 M OF AA)	riesch	negative effect on	
		AA	
Mowing, grazing, excessive herbivory (within AA)			
Excessive human visitation			
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)			
Tree cutting/sapling removal			
Removal of woody debris			
Treatment of non-native and nuisance plant species			
Pesticide application or vector control			
Biological resource extraction or stocking (fisheries, aquaculture)			
Excessive organic debris in matrix (for vernal pools)			
Lack of vegetation management to conserve natural resources			
Lack of treatment of invasive plants adjacent to AA or buffer			
Comments	•		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		
SR43 and BNSF corridor about 50 meters away.		

Basic Information: Vernal Pool Systems

CRA	M Site ID: A	PN: 333-020-005							
Proj	Project Site ID: Fresno to Bakersfield HST								
	Assessment Area Name: VS97A								
Proj	ect Name: Fre	sno to Bakersfield H	HST [Date (m/d/y)	9	26	11		
<u> </u>	Assessment Team Members for This AA								
J. Wł	. Whitfield G. Peracca								
C. Ro	berts		A. Langston						
Wet	and Category		_						
	X Natural	□ Constructed	□ Restoration	(Rehabilitation OR	Enhance	ment)			
If Cı	eated or Rest	ored, does the ac	-						
		entire wetland	□ portion	of the wetland					
Wha	t best describ	es the hydrologic	state of the we	tland at the time of	of assessn	nent?			
	□ ponde	ed/inundated	□ saturated soil	, but no surface wat	er X	dry			
Wha	t is the appare	ent hydrologic re	gime of the wet	land?					
	□ long-du	ration medi	um-duration	X short-duration					
Doe	s the vernal no	ool system conne	ct with the floo	dplain of a nearby	stream?				
200	o the vernur p	•	X no	apidin of a nearsy	oti cui ii.				
		_							
Pl	noto Identifica	ation Numbers as	nd Description:						
	Photo ID	Description	Latitude	Longitude	1	Datum			
	No.								
1	1232	North							
2	1234	South							
3	1233	East							
4	1235	West							
5	5								
6									
	ments:								
	•	d using new Individu	•	. 6.0).					
CRAN	Л score based o	n old VP module V.	5.0.3 = 68.5						
New	CRAM score = 7	76.7							

Scoring Sheet: Vernal Pool Systems

AA Name: VS97A				(m/d/y) 09/26/2011		
Attributes and Metrics			Alpha.	Numer	cic Comments/Scores	
Buffer and Landscape Context						
(A) Aquatic Area Connectivity			В	9	Avg=15%	
(B): Percent of AA with	Alpha.	Numeric				
Buffer	Buffer A 12				100% with buffer	
(C): Average Buffer Width	В	9			Avg=151.9m	
(D): Buffer Condition	В	9				
	<i>(</i> D)	1/2 1/2			Final Attribute Score =	
Initial Attribute Score = $A + [Dx]$	(B x C)	/		18.7	(Initial Score/24) x 100	77.8
Hydrology						
	Wate	er Source	Α	12		
	Нус	lroperiod	В	9		
Hydrolo	gic Cor	nnectivity	В	9		
Initial Attribute Score					Final Attribute Score =	
Illiniai Attribute Score				30	(Initial Score/36) x 100	83.3
Physical Structure						
Structural Patch Richness			В	9	8 patch types	
Pool and	Swale	Density	Α	12	Avg=60%	
Topogra	phic Co	mplexity	С	6		
Turke at Assorts of Course				•	Final Attribute Score =	
Initial Attribute Score				27	(Initial Score/36) x 100	75
Biotic Structure						
	Alpha.	Numeric				
Plant Community submetric A:	1					
Number of Co-dominant species	В	9			4 co-dominant spp.	
Plant Community submetric B:						
Percent Non Native	Α	12			14.3% non-native spp.	
Plant Community submetric C:						
Endemic Species Richness	D	3			0 endemic spp.	
Plant Community Metric	1	I				
(average of submetrics A-C)				8		
Horizontal Interspersion and Zonation			_	_		
			В	9	E' 1 A '1 C	
Initial Attribute Score				17	Final Attribute Score = (Initial Score/24) x 100	70.8
				1/	(IIIIIIII 00010/ 27) X 100	70.0
Overall AA Score (Average of Final	Attrib	ute Scor	es)		76.7	

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA	
Point Source (PS) discharges (POTW, other non-stormwater discharge)			
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)			
Flow diversions or unnatural inflows			
Dams (reservoirs, detention basins, recharge basins)			
Flow obstructions (culverts, paved stream crossings)			
Weir/drop structure, tide gates			
Dredged inlet/channel			
Engineered channel (riprap, armored channel bank, bed)			
Dike/levees	Х		
Groundwater extraction			
Ditches (borrow, agricultural drainage, mosquito control, etc.)			
Actively managed hydrology			
Comments			
Railroad berm.			

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)	Х	
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significan negative effect on AA	
Mowing, grazing, excessive herbivory (within AA)			
Excessive human visitation			
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)			
Tree cutting/sapling removal			
Removal of woody debris			
Treatment of non-native and nuisance plant species			
Pesticide application or vector control			
Biological resource extraction or stocking (fisheries, aquaculture)			
Excessive organic debris in matrix (for vernal pools)			
Lack of vegetation management to conserve natural resources			
Lack of treatment of invasive plants adjacent to AA or buffer			
Comments	<u> </u>		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	Х
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments	•	
BNSF railroad corridor.		

Basic Information: Vernal Pool Systems

CRAM Site	e ID: AP	N: 333-020-005					
Project Site	e ID: Fre	sno to Bakersfield	HST				
Assessmer	nt Area N	lame: VS99A					
Project Na	me: Fres	no to Bakersfield H	HST	Date (m/d/y)	9	26	11
Assessmer	nt Team	Members for Th	nis AA				
J. Whitfield			G. Peracca				
C. Roberts			A. Langston				
Wetland C X Natu		Constructed	□ Restoration	(Rehabilitation O	R Enhance	ement)	
If Created		red, does the ac	-				
	□ e	ntire wetland		n of the wetland			
	long-dura	ol system conne	um-duration	tland? X short-duration dplain of a nearby	y stream?		
		tion Numbers an					
Pho No.	to ID	Description	Latitude	Longitude		Datum	
1 1236		North	35.00945	-119.36341			
2 1238		outh	33.00343	113.30341	+		
3 1237		East					
4 1239		West					
5							
6							
Comments	3:		•	1	<u> </u>		
*April 2012:	updated	using new Individ	ual VP Module (V	′. 6.0).			
CRAM score	based on	old VP module V.	5.0.3 = 77.5				
New CRAM							

Scoring Sheet: Vernal Pool Systems

AA Name: VS99A				(m/d/y) 09/26/2011			
Attributes and Metrics		Alpha.	Numeric	Comments/Scores			
Buffer and Landscape Context			1				
(A) Aquatic Area Connectivity			Α	12	Avg=33.8%		
(B): Percent of AA with	Alpha.	Numeric					
Buffer	Α	12			100% with buffer		
(C): Average Buffer Width	Α	12			Avg=191.9m		
(D): Buffer Condition	В	9					
	· · · · · · · · · · · · · · · · · · ·				Final Attribute Score =		
Initial Attribute Score = A + [Dx	$(B \times C)$	/2] /2		22.4	(Initial Score/24) x 100	93.3	
Hydrology							
	Wate	er Source	Α	12			
	Нус	lroperiod	Α	12			
Hydrolo	gic Cor	nectivity	В	9			
					Final Attribute Score =		
Initial Attribute Score	Initial Attribute Score			33	(Initial Score/36) x 100	91.7	
Physical Structure							
Structura	l Patch	Richness	В	9	9 patch types		
Pool and	l Swale	Density	Α	12	Avg=58.8%		
Topogra	phic Co	mplexity	С	6			
	1	1 ,		I	Final Attribute Score =		
Initial Attribute Score				27	(Initial Score/36) x 100	75	
Biotic Structure							
	Alpha.	Numeric					
Plant Community submetric A:							
Number of Co-dominant species	В	9			5 co-dominant spp.		
Plant Community submetric B:							
Percent Non Native	Α	12			14.3% non-native spp.		
Plant Community submetric C:							
Endemic Species Richness	D	3			0 endemic spp.		
Plant Community Metric							
(average of submetrics A-C)				8			
Horizontal Interspersion and Zonation							
			В	9			
Initial Attribute Score					Final Attribute Score =	_	
Initial Attitibute Scote				17	(Initial Score/24) x 100	70.8	
Overall AA Score (Average of Final	Attrib	ute Score	-s)				
o committee core (invenage of I ma	1100110				82.7		

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Dike levee 60 meters away.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments			

3

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		•

Basic Information: Vernal Pool Systems

CRA	M Site ID: AI	PN: 333-020-005					
Proje	ct Site ID: Fre	esno to Bakersfield	HST				
		Name: VS104A					
		sno to Bakersfield I	HST	Date (m/d/y)	9	27	11
		Members for Th		(, , , , , ,			ı
	gston	NICHIDEIS IOI 11	G. Peracca				
n. Lai	gston		G. Feracca				
C. Rol	erts						
W/a+14	and Catagory						
	and Category : (Natural		Dogto metion	/Dobabilitation OF) Unhanas	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
À	Naturai	□ Constructed	⊔ Restoration	(Rehabilitation OF	Ennance	ment)	
If Cre	eated or Resto	ored, does the ac	tion encompas	s•			
01		entire wetland	-	n of the wetland			
		citare wettaria	прогио	ir or the wettaria			
W774							
What		•		etland at the time			
	□ ponde	ed/inundated	□ saturated soil	l, but no surface wat	ter X	dry	
What	is the appare	ent hydrologic re	gime of the we	tland?			
	□ long-du:	ration medi	um-duration	X short-duration			
D	41	1	-4 - 141- 41 O	4-1-1	-4 3		
Does	the vernal po	•		dplain of a nearby	stream:		
		□ yes	X no				
Ph	oto Identifica	ution Numbers a	nd Description	•			
	Photo ID	Description	Latitude	Longitude	1	Datum	
	No.	r		8			
1	1260	North	35.80731	-119.36221			
2	1262, 63	South					
3	1261	East					
4	1264	West					
5							
6							
_	ments:		1		1		
		d using new Individ	ual VP Module (V	/. 6.0).			
	•	n old VP module V.		1-			
	CRAM score = 7		5.0.5 - 07.5				
vew (ZNAIVI SCUIE = /	7.0					

Scoring Sheet: Vernal Pool Systems

AA Name: VS104A				(m/d/y) 09/27/2011		
Attributes and Metrics				Comments/Scores		
Buffer and Landscape Context						
(A) Aquatic Area Connectivity				Avg=15%		
3): Percent of AA with Alpha. Numeric						
Α	12			100% with buffer		
В	9			Avg=186.9m		
В	9					
~ ~	1/2 - 1/2			Final Attribute Score =		
(B x C)	/2]/2		18.7	(Initial Score/24) x 100	77.8	
Wate	er Source	Α	12			
Нус	droperiod	Α	12			
ogic Cor	nnectivity	Α	12			
				Final Attribute Score =		
			36	(Initial Score/36) x 100	100	
Physical Structure Structural Patch Richness						
d Swale	Density	Α	12	Avg=46.3%		
phic Co	mplexity	С	6			
1	1 ,			Final Attribute Score =		
			27	(Initial Score/36) x 100 75		
Alpha.	Numeric					
F						
С	6			3 co-dominant spp.		
С	6			42.9% non-native spp.		
D	3			0 endemic spp.		
	1					
Plant Community Metric (average of submetrics A-C)			5			
Horizontal Interspersion and Zonation			0			
			<u> </u>	Final Attributa Score -		
			14	(Initial Score/24) x 100	58.3	
Overall AA Score (Average of Final Attribute Scor				77.8		
	A B B (B x C) Wate Hydelegic Constant Patch of Swale aphic Constant Constan	B 9 B 9 B 9 B Source Hydroperiod Ogic Connectivity Al Patch Richness Source Hydroperiod Ogic Connectivity Alpha. Numerical C 6 C 6 D 3	B 9 B 9 B 9 (B x C) 1/2] 1/2 Water Source A Hydroperiod A Ogic Connectivity A Al Patch Richness B Shale Density A Apphic Complexity C Alpha. Numeric C 6 C 6 D 3	B 9	Alpha. Numeric Comments Scores	

Worksheet 9: Stressor Checklist.

Present	Present and likely to have significant negative effect on AA
х	
ience on AA h	ydrology.
	X

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	X	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments AA within 500 meters of orchard (to the west) AA within 500 meters of SR43/BNSF RR		

Basic Information: Vernal Pool Systems

CRAM Site ID: APN:	333-020-005							
Project Site ID: Fresno	Project Site ID: Fresno to Bakersfield HST							
Assessment Area Nar	Assessment Area Name: VS107A							
Project Name: Fresno	to Bakersfield H	ST	Date (m/d/y)	9	22 11			
Assessment Team Mo	embers for Thi	is AA						
A. Langston		J. Love						
C. Roberts		C. Julian						
Wetland Category:								
X Natural □ C	Constructed	□ Restoration	(Rehabilitation OR	. Enhancei	ment)			
If Created or Restored	d, does the act		s: n of the wetland					
What best describes t □ ponded/i	•		etland at the time of , but no surface wat		n ent? dry			
What is the apparent □ long-duration			X short-duration					
Does the vernal pool	system connec	t with the floo	dplain of a nearby	stream?				
	□ yes	X no						
Photo Identification	n Numbers an	d Description	•					
	Description Description	Latitude	Longitude	I	Datum			
No.	p							
1 1224	North	35.80561	-119.36192					
2 1226	South							
3 1225	East							
4 1227	West							
5								
6								
Comments:			·	•	1			
*April 2012: updated usi	ing new Individu	al VP Module (V	['] . 6.0).					
CRAM score based on ol	d VP module V.	5.0.3 = 74.5						
New CRAM score = 80.6								

Scoring Sheet: Vernal Pool Systems

AA Name: VS107A			(m/d/y) 09/22/2011				
Attributes and Metrics				Numeric	Comments/Scores		
Buffer and Landscape Context							
(A) Aquatic Area Connectivity				9	Avg=13.8%		
S): Percent of AA with Alpha. Numeric							
Buffer	Α	12			100% with buffer		
(C): Average Buffer Width	Α	12			Avg=200.8m		
(D): Buffer Condition	В	9					
	~ ~	1/2 - 1/2			Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	(B x C)	/2]/2		19.4	(Initial Score/24) x 100	80.8	
Hydrology							
	Wate	er Source	Α	12			
	Нус	droperiod	Α	12			
Hydrolo	gic Cor	nnectivity	Α	12			
Initial Attribute Score				1	Final Attribute Score =		
Initial Attribute Score				36	(Initial Score/36) x 100	100	
Physical Structure							
Structura	В	9	10 patch types				
Pool and	Swale	Density	В	9	Avg=30%		
Topogra	phic Co	mplexity	В	9			
T 11 1 A 11 1 0				I	Final Attribute Score =		
Initial Attribute Score				27	(Initial Score/36) x 100 75		
Biotic Structure							
	Alpha.	Numerio					
Plant Community submetric A:	1						
Number of Co-dominant species	В	9			4 co-dominant spp.		
Plant Community submetric B:							
Percent Non Native	В	9			25% non-native spp.		
Plant Community submetric C:							
Endemic Species Richness	D	3			0 endemic spp.		
Plant Community Metric	•	1					
(average of submetrics A-C)				7			
Horizontal Interspersion and Zonation			В	0			
				9	Final Attribute Score =		
Initial Attribute Score				16	(Initial Score/24) x 100	66.7	
Overall AA Score (Average of Final	Attrib	ute Scor	es)				
			•		80.6		

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments			

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture			
Orchards/nurseries	Х		
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor	Х		
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)			
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments	•	•	
Orchard approximately 450 meters to the east.			

Basic Information: Vernal Pool Systems

CRAM Site ID: APN: 333-030-006							
Project Site ID: Fresno to Bakersfield HST							
Assessment Area Name: VS112							
Project Name: Fresno to Bakersfield HST Date (m/d/y) 9 22 1							
Assessment Team Members for This AA							
A. Langston J. Love							
C. Roberts C. Julian							
Wetland Categ	ory:						
X Natural	□ Constructed	□ Restoration	(Rehabilitation OF	R Enhance	ment)		
If Created or R	estored, does the ac	-	s: n of the wetland				
□ ро	ribes the hydrologic onded/inundated	□ saturated soil	, but no surface wat		nent? dry		
What is the apparent hydrologic regime of the wetland? □ long-duration □ medium-duration X short-duration							
Does the vernal pool system connect with the floodplain of a nearby stream?							
Photo Identi	fication Numbers as	nd Description	•				
Photo II		Latitude	Longitude	1	Datum		
No.	The state of the s		9				
1 1209, 16	North						
2 1211, 18	South					,	
3 1210, 17	East					,	
4 1212, 19	West						
5							
6							
Comments:							
*April 2012: updated using new Individual VP Module (V. 6.0).							
CRAM score based on old VP module V. 5.0.3 = 71.5							
New CRAM score = 76.7							

Scoring Sheet: Vernal Pool Systems

AA Name: VS112					(m/d/y) 09/22/2011			
Attributes and Metrics				Nui	meric	Comments/Scores		
Buffer and Landscape Context				-				
(A) Aquatic Area Connectivity					9	Avg=14.8%		
(B): Percent of AA with	Alpha.	Numeric						
Buffer	Α	12				98% with buffer		
(C): Average Buffer Width	В	9				Avg=145m		
(D): Buffer Condition	В	9						
	<i>(</i> D, <i>(</i> C))	1/2 1/2				Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	(B x C)	′²]′²		1	.8.7	(Initial Score/24) x 100	77.8	
Hydrology								
	Wate	er Source	В		9			
	Hyd	lroperiod	В		9			
Hydrologic Connectivity					9			
Initial Attribute Score				-		Final Attribute Score =		
Illiniai Attribute Score			27			(Initial Score/36) x 100	75	
Physical Structure								
Structural Patch Richness					9	9 patch types		
Pool and Swale Density			Α		12	Avg=56.3%		
Topographic Complexity			В		9			
						Final Attribute Score =		
Initial Attribute Score			30 (Initial So		(Initial Score/36) x 100	83.3		
Biotic Structure								
	Alpha.	Numeric						
Plant Community submetric A:	1							
Number of Co-dominant species	В	9				4 co-dominant spp.		
Plant Community submetric B:								
Percent Non Native	Α	12				9% non-native spp.		
Plant Community submetric C:								
Endemic Species Richness	D	3				0 endemic spp.		
Plant Community Metric								
(average of submetrics A-C)					8			
Horizontal Interspersion and Zonation			_					
			В		9	E' 1 A		
Initial Attribute Score				17		Final Attribute Score = (Initial Score/24) x 100	70.8	
				1/		(Induit George 21) A 100	70.0	
Overall AA Score (Average of Final	Attrib	ute Score	es)			76.7		

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
Road berm for SR43.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)	Х	
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		
Road berm for SR43.		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments SR43 and BNSF corridor are less than 50 meters west of AA.		

Basic Information: Vernal Pool Systems

CRA	M Site ID: A	APN: 333-030-006					
Proje	ect Site ID: F	resno to Bakersfield	HST				
		Name: VS114A					
Proje	ect Name: Fr	esno to Bakersfield I	HST	Date (m/d/y)	9	27	11
Asse	ssment Tear	m Members for Th	nis AA				
A. La	ngston		G. Peracca				
C. Ro	berts						
Wetl	and Categor	y:					
	X Natural	□ Constructed	□ Restoration	(Rehabilitation OF	R Enhance	ement)	
If Cı		stored, does the ac	-				
		entire wetland	□ portion	n of the wetland			
Wha		rent hydrologic restriction medi	gime of the we	tland? X short-duration	ter X	dry	
			X no		stream?		
	Photo ID	cation Numbers as				D-4	
	No.	Description	Latitude	Longitude	-	Datum	
1	1248	North					
2		South					
3		East					
4		West					
5		11000					
6							
	ments:		1	<u> </u>			
		ed using new Individ	ual VP Module (V	. 6.0).			
-	•	on old VP module V.	· ·	•			
	CRAM score =						
ı							

Scoring Sheet: Vernal Pool Systems

AA Name: VS114A			(m/d/y) 09/27/2011				
Attributes and Metrics				Numeric	Comments/Scores		
Buffer and Landscape Context	Alpha.						
(A) Aquatic Area Connectivity				12	Avg=34.8%		
(B): Percent of AA with	, 1						
Buffer	Α	12			100% with buffer		
(C): Average Buffer Width	В	9			Avg=184.4m		
(D): Buffer Condition	В	9					
	~ ~	1/2 - 1/2			Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	(B x C)	/2]/2		21.7	(Initial Score/24) x 100	90.3	
Hydrology							
	Wate	er Source	Α	12			
	Нус	lroperiod	Α	12			
Hydrolo	gic Cor	nnectivity	Α	12			
Initial Attribute Score				•	Final Attribute Score =		
Initial Attribute Score				36	(Initial Score/36) x 100	100	
Physical Structure							
Structural Patch Richness				9	9 patch types		
Pool and Swale Density				9	Avg=30%		
Topographic Complexity			С	6			
T 11 1 A 11 1 1 0		<u> </u>			Final Attribute Score =		
Initial Attribute Score				24	(Initial Score/36) x 100	66.7	
Biotic Structure							
	Alpha.	Numeric					
Plant Community submetric A:	1						
Number of Co-dominant species	В	9			4 co-dominant spp.		
Plant Community submetric B:							
Percent Non Native	В	9			25% non-native spp.		
Plant Community submetric C:							
Endemic Species Richness	D	3			0 endemic spp.		
Plant Community Metric	•	1					
(average of submetrics A-C)				7			
Horizontal Interspersion and Zonation			В				
				9	Einal Attailants Comme		
Initial Attribute Score				16	Final Attribute Score = (Initial Score/24) x 100	66.7	
				10		00.7	
Overall AA Score (Average of Final	Overall AA Score (Average of Final Attribute Score				80.9		

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
SR43 is approximately 80 meters away.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments			

3

Present	Present and Likely to Have Significant negative effect on AA
	Present

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments	•	•
SR43 and BNSF corridor are approximately 80 meters away.		

Basic Information Sheet: Perennial Depressional Wetlands

Your	Name: A. Lang	ston				
Asse	ssment Area N	ame: D304				
Asse	ssment No.		Date	(mm/dd/yyyy): 05	5/16/2012	
A 6 6 6	ssment Team I	Members for Th	sis AA			
G. Pei		vicinibets for 11	IIS AA			_
U . 1 C	deca					
A.Lan	gston					
E. Ma	roni					
AA	Category:					
[] Restoration	[] N	litigation	[] Impacted	X Other	
Wł	nich best descr	ibes the type of	depressional wetla	nd?		
		• -	_		- 41 11 (: 6)	
	X freshwater m	arsn [] ai	kaline marsh [] alkali flat []	other (specify):	
W1	nich best descr	ibes the hydrolo	ogic state of the we	tland at the time of	assessment?	
** 1		•				
	[] ponded/:	inundated	[] saturated soil, t	out no surface water	X dry	_
Wł	nat is the appai	rent hydrologic	regime of the wetla	and?		
Lo	ng-duration depre	essional wetlands a	re defined as supportir	ng surface water for > 9	9 months of the	
				wetlands are defined as		
			•	-duration wetlands pos	sess surface water	
bet	ween 2 weeks and	d 4 months of the	year.			
	[] long	g-duration	[] medium-durati	on X short-dur	ation	
$\mathbf{D}\mathbf{o}$	es your wetlan	d connect with	the floodplain of a	nearby stream?] yes X no	
				longer functions as a flor	w-throw system due to	
an i	mpenetrable berm	downstream. Water	now appears to pond in	these channels		
Is	the topographi	c basin of the w	retland X distinct	or [] indistinct?		
	101				intrinataly	
				eadows, which may be ery large areas, topogra		t
				nples of such features		ι
		ls in very low-grad		T	,	
	T.1 1.0		15			
Ph	oto Identificat Photo ID	ion Numbers as	nd Description: Latitude	Langituda	Determ	
	No.	Description	Latitude	Longitude	Datum	
1	5660	North			1	
2	5658	South				
3	5661	East				
4	5659	West				

Scoring Sheet: Perennial Depressional Wetlands

AA Name: D304				Date: 05/16/2012	
Attributes and Metrics			ores	Comments	
Buffer and Landscape Context					
Landscape Connectivity (D)			9	Avg=68.8%	
Buffer submetric A:					
Percent of AA with Buffer	12			100% with buffer	
Buffer submetric B:					
Average Buffer Width	12			Avg= 244 meters	
Buffer submetric C:					
Buffer Condition	9		T		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attributes$	ute Score	Raw	Final	Final Attribute Score =	
		19.4	80.8	(Raw Score/24)100	80.8
Hydrology	Т				
	ter Source		9		
Hydroperiod or Channe			9		
Hydrologic Co	nnectivity		12		
Attribute S	Score83 3	Raw	Final	Final Attribute Score =	
Attribute	3001003.3	30	83.3	(Raw Score/36)100	83.3
Physical Structure					
Structural Patch	Richness		3		2 Patches
Topographic Co	omplexity		9		
Attuiba	ute Score	Raw	Final	Final Attribute Score =	
Attrib	ute score	12	50	(Raw Score/24)100	50
Biotic Structure					
Plant Community submetric A:					
Number of Plant Layers	6			2 Layers	
Plant Community submetric B:					
Number of Co-dominant species	3			3 co-dominant spp.	
Plant Community submetric C:					
Percent Invasion	12			0% non-native spp.	
Plant Commun	,		_		
(average of submetrics A-C)			7		
Horizontal Interspersion and Zonation			6		
Vertical Biotic	Structure		L2		
Attrib	ute Score	Raw	Final	Final Attribute Score =	
		25	69.4	(Raw Score/36)100	69.4
Overall AA Score (Aver	age of Fina	al Attribu	ite Scores)	
				7 70.9	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
	·	·

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	-	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture	Х		
Orchards/nurseries			
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor			
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)	Х		
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			
Off-road vehicle tracks, shotgun shells, refuse set up for shoot	ing practice all litter	the property	

Basic Information Sheet: Perennial Depressional Wetlands

You	r Name: A. Lang	ston			
Asse	essment Area N	ame: Buena Vista	a Dairy D304		
Asse	essment No.		Da	ate (mm/dd/yyyy)	: 05/16/2012
A e e e	esment Team	Members for Th	ois AA		
	eracca	WICHIDEIS IOI II	IIS AA		
0.10	Tuccu				
A.Lar	ngston				
E. Ma	aroni				
					_
A A	A Category:				
	[] Restoration	[] N	litigation	[] Impacted	X Other
W	hich best descr	ibes the type of	depressional we	tland?	
		• -	_		1 -41 (:C-).
	X freshwater m	iarsii [] ai	kaline marsh	[] alkali flat	other (specify):
W	hich best descr	ibes the hydrolo	ogic state of the	wetland at the time	of assessment?
**		·			
	[] ponded/	inundated	[] saturated so	l, but no surface wat	ter X dry
W	hat is the appar	rent hydrologic	regime of the we	tland?	
Lo	ong-duration depre	essional wetlands a	re defined as suppo	rting surface water for	> 9 months of the
				nal wetlands are define	
			•	ort-duration wetlands	possess surface water
be		d 4 months of the			
	[] long	g-duration	[] medium-dur	ation X short-	duration
				a nearby stream?	
					flow-throw system due to
an	impenetrable berm	downstream. Water	now appears to pond	in these channels	
Is	the topographi	c basin of the w	retland X distin	ct or [] indistinct	?
	101			meadows, which may	
					graphic basin is one that
				xamples of such featur	
dej	pressional wetland	ls in very low-grad	ient landscapes.		
D1	noto Identificat	ion Numbers a	nd Description:		
	Photo ID	Description	Latitude	Longitude	Datum
	No.	F			
1	5660	North			
2		South			
3		East			
4	5659	West			

Scoring Sheet: Perennial Depressional Wetlands

AA Name: Buena Vista Dairy D304				Date: 05/16/2012	
Attributes and Metrics		Sco	ores	Comments	
Buffer and Landscape Context					
Landscape Connec	ctivity (D)		9	Avg=68.8%	
Buffer submetric A:					
Percent of AA with Buffer	12			100% with buffer	
Buffer submetric B:					
Average Buffer Width	12			Avg= 244 meters	
Buffer submetric C:					
Buffer Condition	9		T		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attributes$	ute Score	Raw	Final	Final Attribute Score =	
		19.4	80.8	(Raw Score/24)100	80.8
Hydrology					
Wat	er Source		9		
Hydroperiod or Channe	el Stability		9		
Hydrologic Co	nnectivity		12		
Attribute S	Score 83 3	Raw	Final	Final Attribute Score =	
Attribute	50105.5	30	83.3	(Raw Score/36)100	83.3
Physical Structure					
Structural Patch	Richness		3		2 Patches
Topographic C	omplexity		9		
A 44	-4. C	Raw	Final	Final Attribute Score =	
Attrib	ute Score	12	50	(Raw Score/24)100	50
Biotic Structure					
Plant Community submetric A:					
Number of Plant Layers	6			2 Layers	
Plant Community submetric B:					
Number of Co-dominant species	3			3 co-dominant spp.	
Plant Community submetric C:					
Percent Invasion	12			0% non-native spp.	
Plant Commun	,				
(average of subm			7		
Horizontal Interspersion and Zonation			6		
Vertical Biotic	Structure		12		
Attrib	ute Score	Raw	Final	Final Attribute Score =	
Titti o		25	69.4	(Raw Score/36)100	69.4
Overall AA Score (Aver	age of Fin	al Attribu	ite Scores		
O CHAIR THE OCOTE (FIVE)				70.9	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
	·	·

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	-	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA	
Urban residential			
Industrial/commercial			
Military training/Air traffic			
Dams (or other major flow regulation or disruption)			
Dryland farming			
Intensive row-crop agriculture	Х		
Orchards/nurseries			
Commercial feedlots			
Dairies			
Ranching (enclosed livestock grazing or horse paddock or feedlot)			
Transportation corridor			
Rangeland (livestock rangeland also managed for native vegetation)			
Sports fields and urban parklands (golf courses, soccer fields, etc.)			
Passive recreation (bird-watching, hiking, etc.)			
Active recreation (off-road vehicles, mountain biking, hunting, fishing)	Х		
Physical resource extraction (rock, sediment, oil/gas)			
Biological resource extraction (aquaculture, commercial fisheries)			
Comments			
Off-road vehicle tracks, shotgun shells, refuse set up for shoot	ing practice all litter	the property	

Basic Information Sheet: Perennial Depressional Wetlands

Your N	ame: A. Langs	ton			
Assessr	nent Area Na	ame: Buena Vista	a Dairy D305		
Assessr	nent No.		Date	(mm/dd/yyyy): 05	5/16/2012
Assessr	nent Team N	Members for Th	is AA		
G. Perac	са				
A.Langst	on				
E. Maror	ni				
AA C	ategory:				
[]	Restoration	[] N	litigation	[] Impacted	X Other
Whic	h best descri	bes the type of	depressional wetlar	nd?	
Х	freshwater ma	ursh []al	kaline marsh [] alkali flat []	other (specify):
					, ,
Whic	h best descri	bes the hydrolo	ogic state of the wet	land at the time of	assessment?
	[] ponded/i	nundated	[] saturated soil, b	ut no surface water	X dry
What	is the appare	ent hydrologic	regime of the wetla		,
year (in surface	n > 5 out of 10 e water for bety	years.) Medium-	re defined as supportinduration depressional verths of the year. Short-year.	vetlands are defined as	supporting
	[]long	-duration	[] medium-duration	on X short-dur	ation
Does	your wetland	d connect with	the floodplain of a	nearby stream? [] yes X no
An inc intersp lacks o	listinct, such as persed with uplated	vernal pool compands or seemingly	retland X distinct plexes and large wet me homogeneous over ve and and upland. Examient landscapes.	eadows, which may be ry large areas, topograp	phic basin is one that
Photo	o Identificati	on Numbers ar	nd Description:		
	Photo ID No.	Description	Latitude	Longitude	Datum
1 1	253	North			
2 1	251	South			
	252	East			
4 1	250	West			

Scoring Sheet: Perennial Depressional Wetlands

AA Name: Buena Vista Dairy D30			Date: 05/16/2012		
Attributes and Metrics		Sco	ores	Comments	
Buffer and Landscape Context					
Landscape Connec	Landscape Connectivity (D)		L 2	Avg=87.5%	
Buffer submetric A:					
Percent of AA with Buffer	12			100% with buffer	
Buffer submetric B:					
Average Buffer Width	12			Avg= 250 meters	
Buffer submetric C:	_				
Buffer Condition	9		Ι		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribut$	ite Score	Raw	Final	Final Attribute Score =	
		22.4	93.3	(Raw Score/24)100	93.3
Hydrology					
	er Source		9		
Hydroperiod or Channe			9		
Hydrologic Co	nnectivity	1	2		
Attribute S	Score83 3	Raw	Final	Final Attribute Score =	
Attribute	001003.5	30	83.3	(Raw Score/36)100	83.3
Physical Structure					
Structural Patch	Richness		3	3 patch types	
Topographic Complexity			9		
Attrib	ate Score	Raw	Final	Final Attribute Score =	
Attilo	ate score	12	50	(Raw Score/24)100	50
Biotic Structure					
Plant Community submetric A:					
Number of Plant Layers	6			1 Layers	
Plant Community submetric B:					
Number of Co-dominant species	3			3 co-dominant spp.	
Plant Community submetric C:	•			2004	
Percent Invasion	6			33% non-native spp.	
Plant Commun	-		_		
(average of subm			5		
Horizontal Interspersion and			6		
Vertical Biotic	Structure		9	E' 1 A '1 0	
Attrib	ite Score	Raw	Final	Final Attribute Score =	FF 6
		20	55.6	(Raw Score/36)100	55.6
Overall AA Score (Aver	al Attribu	te Scores)		
				7 70.5	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	·	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture	Х	
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)	Х	
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		
Off-road vehicle tracks, shotgun shells, refuse set up for shoot	ing practice all litter	the property

Basic Information: Individual Vernal Pool

CRAM Site ID: Buena	a Vista Dairy					
Project Site ID: Fresno to Bakersfield HST CMP						
Assessment Area Na	me: V305					
Project Name: Fresno	to Bakersfield H	ST	Date (m/d/y)	5	16	12
Assessment Team M	lembers for Th	is AA				
G. Peracca						
A.Langston						
E. Maroni						
Wetland Category:						
X Natural □ 0	Constructed	□ Restoration	(Rehabilitation OR	R Enhance	ment)	
If Created or Restore	ed, does the act	_	n of the wetland			
What best describes □ ponded/			etland at the time of the l, but no surface wat		nent? dry	
What is the apparent □ long-durati	•		X short-duration			
Does the vernal pool	system connec		odplain of a nearby	stream?		
Photo Identification	on Numbers an	d Description	:			
Photo ID No.	Description	Latitude	Longitude	1	Datum	
1 1259	North					
2 1258	South					
3 1265	East					
4 1264	West					
5						
6						
Comments:						

Scoring Sheet: Individual Vernal Pools

AA Name: V305					(m/d/y)	05/16/2012	
Attributes and Metrics Alpha. Numeric					Comments		
Buffer and Landscape Conte							
(A) Aquatic Area Connectivity				12	Avg=68%		
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C) 4 D (C W) 11	_						
(C): Average Buffer Width	Α	12			Avg=236 n	neters	
(D): Buffer Condition	В	9					
Initial Attribute Score =	A + [D	v (B v C	\ ^{1/2} 1 ^{1/2}		Final Att	ribute Score =	
Initial Attribute Score –		/ x (D x C	7]	22.4	(Initial Sc	ore/24) x 100	93.3
Hydrology				_			
	Wate	er Source	В	9			
		roperiod	Α	12			
Hydrolo	gic Con	nectivity	Α	12			
Initial	Attribu	te Score	l			ribute Score =	
				33	(Initial Sc	ore/36) x 100	91.7
Physical Structure							
Structura			С	6	4 patch ty	pes	
Topogra	phic Co	mplexity	В	9	T' 1 A	<u>, , , , , , , , , , , , , , , , , , , </u>	
Initial .	Attribu	te Score		4.5		ribute Score =	60 F
D' ' C'				15	(Initial Sc	ore/24) x 100	62.5
Biotic Structure	, .						
Horizontal Interspersion and Z			С	6			
Community composition submetric A: Number of Co-dominants	Alpha. B	Numeric 9			4 co-domi	nant con	
Community composition submetric	В	, ,			4 CO-dOIIII	папс эрр.	
B: Percent Non-native	В	9			25% non-r	native spp.	
Community Composition submetric	_					1- 14 -	
C: Endemic Species Richness	D	3			0 endemic	spp.	
Plant Community Con						-	
(numeric average (of submei	trics A-C)		7			
Initial Attribute Score				13		ribute Score = core/24) x 100	54.2
Overall AA Score (Average of Final Attribute Score					`	75.4	

Worksheet 8: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	Х
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets) Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	·	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	Х
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments	•	
Some evidence of active recreation on property but not w/in 50	00 meters	

Basic Information: Vernal Pool Systems

Project Site ID: Fresno to Bakersfield CMP Assessment Area Name: VS 305
Assessment Area Name: VS 305
1 to occomment the with the state of the sta
Project Name: Fresno to Bakersfield HST Date (m/d/y) 5 16 12
Assessment Team Members for This AA
E.Maroni
A. Langston
G. Peracca
Wetland Category:
X Natural □ Constructed □ Restoration (Rehabilitation OR Enhancement)
If Created or Restored, does the action encompass: □ entire wetland □ portion of the wetland
What best describes the hydrologic state of the wetland at the time of assessment? □ ponded/inundated □ saturated soil, but no surface water X dry
What is the apparent hydrologic regime of the wetland? □ long-duration □ medium-duration X short-duration
Does the vernal pool system connect with the floodplain of a nearby stream?
□ yes X no
Photo Identification Numbers and Description:
Photo ID Description Latitude Longitude Datum
No.
1 1260 North
2 1261 South
3 1262 East
4 1263 West
5
Comments:

Scoring Sheet: Vernal Pool Systems

AA Name: VS305			(m/d/y) 05/16/2012				
Attributes and Metrics			Alpha.	Numerio	Comments/Scores		
Buffer and Landscape Context			1				
(A) Aquatic Area Connectivity			Α	12	Avg=85%		
B): Percent of AA with Alpha. Numeric							
Buffer	Α	12			100% with buffer		
(C): Average Buffer Width	Α	12			Avg=250 meters		
(D): Buffer Condition	В	9					
	~	$\frac{1}{2} = \frac{1}{2}$			Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	(B x C)	/		22.4	(Initial Score/24) x 100	93.3	
Hydrology							
	Wate	er Source	Α	12			
	Hyd	lroperiod	В	9			
Hydrolo	gic Cor	nectivity	Α	12			
Initial Attribute Score					Final Attribute Score =		
Illiniai Attribute Score				33	(Initial Score/36) x 100	91.7	
Physical Structure							
Structura	l Patch	Richness	В	9	8 patch types		
Pool and	Swale	Density	Α	12			
Topogra	phic Co	mplexity	С	6			
Turke at Appellance Comme				•	Final Attribute Score =		
Initial Attribute Score				27	(Initial Score/36) x 100	75	
Biotic Structure							
	Alpha.	Numeric	,				
Plant Community submetric A:	1						
Number of Co-dominant species	С	6			2.5 co-dominant spp.		
Plant Community submetric B:							
Percent Non Native	В	9			33% non-native spp.		
Plant Community submetric C:							
Endemic Species Richness	D	3			0 endemic spp.		
Plant Community Metric	1	1					
(average of submetrics A-C)				6			
Horizontal Interspersion and Zonation			В				
	•			9			
Initial Attribute Score					Final Attribute Score =		
3000				15	(Initial Score/24) x 100	62.5	
Overall AA Score (Average of Final	Attrib	ute Scor	es)				
(11.81112			80.6				

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	х	Х
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments	•	

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	Х
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments Evidence of active recreation onsite but not within some of AA		

Basic Information: Vernal Pool Systems

Project Site ID: Fresno to Bakersfield CMP Assessment Area Name: VS307 Project Name: Fresno to Bakersfield HST Date (m/d/y) 5 16 12 Assessment Team Members for This AA E.Maroni
Project Name: Fresno to Bakersfield HST Date (m/d/y) 5 16 12 Assessment Team Members for This AA E.Maroni
Assessment Team Members for This AA E.Maroni
E.Maroni
A. Langston
G. Peracca
Wetland Category:
X Natural □ Constructed □ Restoration (Rehabilitation OR Enhancement)
If Created or Restored, does the action encompass: □ entire wetland □ portion of the wetland
What best describes the hydrologic state of the wetland at the time of assessment? □ ponded/inundated □ saturated soil, but no surface water X dry
What is the apparent hydrologic regime of the wetland? □ long-duration □ medium-duration X short-duration
Does the vernal pool system connect with the floodplain of a nearby stream?
□ yes X no
Photo Identification Numbers and Description:
Photo ID Description Latitude Longitude Datum
No.
1 1255 North
2 1256 South
3 1254 East
4 1257 West
5
Comments:

Scoring Sheet: Vernal Pool Systems

AA Name: Buena Vista Dairy VS307					(m/d/y) 05/16/2012	
Attributes and Metrics			Alpha.	Numeric	Comments/Scores	
Buffer and Landscape Context			<u> </u>			
(A) Aquatic Area Connectivity			Α	12	Avg=55%	
(B): Percent of AA with	Alpha.	Numeric				
Buffer	Α	12			100% with buffer	
(C): Average Buffer Width	Α	12			Avg=208.1 meters	
(D): Buffer Condition	В	9				
	(T) (C)	1/2 1/2			Final Attribute Score =	
Initial Attribute Score = $A + [Dx]$	(B x C)	<u> </u>		22.4	(Initial Score/24) x 100	93.3
Hydrology						
	Wate	er Source	В	9		
	Нус	lroperiod	Α	12		
Hydrolo	gic Cor	nnectivity	Α	12		
Initial Attribute Score					Final Attribute Score =	
Illitial Attribute Score				33	(Initial Score/36) x 100	91.7
Physical Structure						
Structural Patch Richness			В	9	8 patch types	
Pool and	Swale	Density	Α	12	Avg=76.3%	
Topogra	phic Co	mplexity	С	6		
Initial Attribute Score					Final Attribute Score =	
Initial Attribute Score				27	(Initial Score/36) x 100	75
Biotic Structure						
	Alpha.	Numeric				
Plant Community submetric A:						
Number of Co-dominant species	В	9			4.5 co-dominant spp.	
Plant Community submetric B:						
Percent Non Native	В	9			28.6% non-native spp.	
Plant Community submetric C:						
Endemic Species Richness	D	3			0 endemic spp.	
Plant Community Metric		L				
(average of submetrics A-C)			7			
Horizontal Interspersion and Zonation		_	_			
			В	9	E' 1 A 'I O	
Initial Attribute Score					Final Attribute Score =	
]	16	(Initial Score/24) x 100	66.7	
Overall AA Score (Average of Final	l Attrib	ute Score	es)		01 7	
(g					81.7	

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	X
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA	
Filling or dumping of sediment or soils (N/A for restoration areas)			
Grading/ compaction (N/A for restoration areas)			
Plowing/Discing (N/A for restoration areas)			
Resource extraction (sediment, gravel, oil and/or gas)			
Vegetation management			
Excessive sediment or organic debris from watershed			
Excessive runoff from watershed			
Nutrient impaired (PS or Non-PS pollution)			
Heavy metal impaired (PS or Non-PS pollution)			
Pesticides or trace organics impaired (PS or Non-PS pollution)			
Bacteria and pathogens impaired (PS or Non-PS pollution)			
Trash or refuse			
Comments			

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture	Х	
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	Х
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments	•	•
Some evidence of active recreation present		

Basic Information Sheet: Perennial Depressional Wetlands

Your Name: A. Langs	ston			
Assessment Area N	ame: Davis D301			
Assessment No.		Date	(mm/dd/yyyy): 05/17/2012
Assessment Team N	Members for Th	ois AA		
G. Peracca	rembers for 11	IIS AA		
C. i ciuccu				
A. Langston				
E. Maroni				
	_			
AA Category:				
[] Restoration	[]]	Nitigation	[] Impacted	X Other
L J	<u> </u>	Mitigation	[] Impacted	A Other
Which best descri	bes the type of	depressional wetla	nd?	
[] freshwater:	marsh []	alkaline marsh	[] alkali flat	X other (specify):
Which best descri	bes the hydrolo	ogic state of the wet	tland at the tim	e of assessment?
[] ponded/i	nundated	[] saturated soil, b	out no surface wa	nter X dry
What is the appar	ent hydrologic	regime of the wetla		,
		0		. 0 1 61
		re defined as supportin duration depressional v		
		ths of the year. Short-		
between 2 weeks and				
[]long	g-duration	[] medium-durati	on X short-	duration
	,	<u> </u>		[] yes X no
Does your wettan	d connect with	the floodplain of a	ilearby stream?	[] yes A 110
Is the topographic	c basin of the w	retland [] distinct	et or X indisting	et ?
An indistinct, such as	s vernal pool com	plexes and large wet me	eadows, which ma	v be intricately
				ographic basin is one that
		and and upland. Exan	ples of such featu	ares are seasonal,
depressional wetland	s in very low-grad	ient landscapes.		
Photo Identificati	ion Numbers at	nd Description:		
Photo ID	Description	Latitude	Longitude	Datum
No.	•		0	
1 1276	North			
2 1279	South			
3 1275	East			
4 1278	West			

Scoring Sheet: Perennial Depressional Wetlands

AA Name: Davis D301				Date: 05/17/2012	
Attributes and Metrics		Sco	ores	Comments	
Buffer and Landscape Context					
Landscape Connec	ctivity (D)	В	9		
Buffer submetric A:					
Percent of AA with Buffer	9			70% with buffer	
Buffer submetric B:					
Average Buffer Width	12			Avg= 250 meters	
Buffer submetric C:					
Buffer Condition	12		I		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribut$	ute Score	Raw	Final	Final Attribute Score =	
		20.2	84	(Raw Score/24)100	84
Hydrology					
	er Source		12	groundwater	
Hydroperiod or Channe	el Stability		9		
			•	*would this be a "c" or	
Hydrologic Co	nnectivity		9	Chad, old man-	made basın
Attribute Score		Raw	Final	Final Attribute Score =	
		30	83.3	(Raw Score/36)100	83.3
Physical Structure	D' 1			2	
Structural Patch			3	2 patch types	
Topographic Co	omplexity		6	E' 1 A '1 O	
Attrib	ute Score	Raw	Final	Final Attribute Score =	a= =
Biotic Structure		9	37.5	(Raw Score/24)100	37.5
Plant Community submetric A:					
Number of Plant Layers	6			2 layers	
Plant Community submetric B:				2 layers	
Number of Co-dominant species	3			3 co-dominant spp.	
Plant Community submetric C:				11	
Percent Invasion	12			0% invasion	
Plant Commun	ity Metric				
(average of subm	(average of submetrics A-C)		7		
Horizontal Interspersion and	Horizontal Interspersion and Zonation		9		
Vertical Biotic	Structure	1	12		
Attrib	ute Score	Raw 28	Final 77.8	Final Attribute Score = (Raw Score/36)100 77	
Overall AA Score (Aver	Overall AA Score (Average of Fina		I		

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)	Х	
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		
		·

fect on AA	negative effect on AA
	ect on AA

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)	Х	
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

Basic Information Sheet: Perennial Depressional Wetlands

Your	Name: A. Lang	ston				
Asse	ssment Area N	ame: Davis D301	.A			
Asse	ssment No.		Date	(mm/dd/yyyy	r): 05/17/2012	
A 660	ssment Team l	Members for Th	sis AA			
G. Pei		VICINDEIS IOI II	115 AA			
U . 1 C.	racca					
A. Lar	ngston					
E. Ma	ironi					
AA	Category:					
ſ] Restoration	[] N	Mitigation	[] Impacted	X Other	
Wi	nich best descr		depressional wetla	nd?		
		• •	•		[] -41(:C-).	
	[] freshwater	marsn []	alkaline marsh	X alkali flat	[] other (specify):	
Wł	nich best descr	ibes the hydrol	ogic state of the wet	tland at the tim	e of assessment?	
		inundated		out no surface wa		
*****					itei X diy	
Wł	nat is the appai	rent hydrologic	regime of the wetla	nd?		
			re defined as supportin			
			duration depressional v			
			nths of the year. Short- vear.	duration wettands	s possess surface water	
	between 2 weeks and 4 months of the year. [] long-duration [] medium-duration X short-duration					
			<u> </u>			
Do	es your wetlan	d connect with	the floodplain of a	nearby stream?	Y [] yes X no	
Is	the topographi	c basin of the w	v etland [] distinc	t or X indisting	ct ?	
			plexes and large wet me			
					ographic basin is one that	
			land and upland. Exan			
dep	pressional wetland	ls in very low-grad	ient landscapes.			
Ph	oto Identificat	ion Numbers a	nd Description:			
	Photo ID	Description	Latitude	Longitude	e Datum	
	No.	•		S		
1	1280	North				
2	1282	South				
3	1283	East				
4	1281	West				

Scoring Sheet: Perennial Depressional Wetlands

AA Name: Davis D301A			Date: 05/17/2012		
Attributes and Metrics		Sc	ores	Comments	
Buffer and Landscape Context					
Landscape Connectivity (D)		В	9	Avg=72.5%	
Buffer submetric A:					
Percent of AA with Buffer	9			65% with buffer	
Buffer submetric B:					
Average Buffer Width	12			Avg= 250 meters	
Buffer submetric C:					
Buffer Condition	12		I		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attributes$	ute Score	Raw	Final	Final Attribute Score =	
		20.2	84	(Raw Score/24)100	84
Hydrology					
	er Source		12	groundwater	
Hydroperiod or Channe			9		
Hydrologic Co	Hydrologic Connectivity		9		
Attribute Score		Raw	Final	Final Attribute Score =	
Titli o	ate ocore	30	83.3	(Raw Score/36)100	83.3
Physical Structure					
Structural Patch	Richness		3	3 patch types	
Topographic Complexity			6		
Attribute Score		Raw	Final	Final Attribute Score =	
Attibo	ute score	9	37.5	(Raw Score/24)100	37.5
Biotic Structure					
Plant Community submetric A:					
Number of Plant Layers	6			2 layers	
Plant Community submetric B:					
Number of Co-dominant species	3			1 co-dominant sp.	
Plant Community submetric C:					
Percent Invasion	12			0% invasion.	
Plant Community Metric			_		
(average of submetrics A-C)			7		
Horizontal Interspersion and Zonation			6		
Vertical Biotic Structure			L2	T' 1 4 '1 0	
Attribute Score		Raw	Final	Final Attribute Score =	
		25	69.4	(Raw Score/36)100	69.4
Overall AA Score (Average of Final Attribute Scores)					
				68.6	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows	Х	
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

,

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)	Х	
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

Basic Information: Individual Vernal Pool

CRAM Site ID: Staffel								
Project Site ID: Fresno to Bakersfield HST (CMP)								
Assessment Area Name: V301								
Project Name: Fresno to Bakersfield HST (CMP) Date $(m/d/y)$ 5 15 12								
Assessment Team Members for This AA								
G. Peracca								
A. Langston								
E. Maroni								
Wetland Category:								
X Natural □ Constructed □ Restoration (Rehabilitation OR Enhancement)								
If Created or Restored, does the action encompass: □ entire wetland □ portion of the wetland								
What best describes the hydrologic state of the wetland at the time of assessment? □ ponded/inundated □ saturated soil, but no surface water X dry								
What is the apparent hydrologic regime of the wetland? □ long-duration □ medium-duration X short-duration								
Does the vernal pool system connect with the floodplain of a nearby stream?								
Photo Identification Numbers and Description:								
Photo ID Description Latitude Longitude Datum								
1 5634 North								
2 5636 South								
3 5633 East								
4 5635 West								
5								
6								
Comments:								

Scoring Sheet: Individual Vernal Pools

AA Name: V301					(m/d/y)	05/15/2012	
Attributes and Me	Alpha.	Numeric		Comments			
Buffer and Landscape Conte	ext						
(A) Aquatic A	rea Con	nectivity	Α	12	Avg= 53%		
	Alpha.	Numeric					
(B): Percent of AA with Buffer			100% with	buffer			
(C): Average Buffer Width	Α	12			Avg=250m	<u> </u>	
(D): Buffer Condition	В	9					
Initial Attailmets Come -	A + [D) (D C	`\ ¹ / ₂ 1 ¹ / ₂		Final Attı	ribute Score =	
Initial Attribute Score =	Α+[D	ух (БхС	·)]	22.4	(Initial Sc	ore/24) x 100	93.3
Hydrology							
	Wate	er Source	В	9			
	Hydroperiod						
Hydrolo	gic Con	nectivity	Α	12			
					Final Attr	ribute Score =	
Illitiai	Initial Attribute Score				(Initial Sc	ore/36) x 100	91.7
Physical Structure							
Structura	l Patch !	Richness	С	6	4 patch ty	oes	
Topogra	phic Co	mplexity	С	6			
Initial	Attribu	te Score		12		ribute Score = ore/24) x 100	50
Biotic Structure			I			, ,	
Horizontal Interspersion and Z	Zonation	1	В	9			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	Α	12			7 co-domii	nant spp.	
Community composition submetric							
B: Percent Non-native	Α	12			14% non-r	ative spp.	
Community Composition submetric							
C: Endemic Species Richness	D	3			0 endemic	spp.	
Plant Community Con (numeric average	_			9			
, J		te Score		18		ribute Score = ore/24) x 100	75
Overall AA Score (Av	verage (of Final	Attribut	e Scores)		77.5	

Worksheet 8: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
No stressors.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse	Х	Х
Comments		•
No stressors.		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets) Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		
No stressors.		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	Х
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

Basic Information: Individual Vernal Pool

CRA	M Site ID: Sta	iffel							
		esno to Bakersfield	HST (CMP)						
Asses	sment Area N	Name: V302							
Proje	Project Name: Fresno to Bakersfield HST (CMP) Date $(m/d/y)$ 5 15 12								
Asses	Assessment Team Members for This AA								
G. Per	асса								
A. Lan	gston								
E. Ma	roni								
Wetla	ınd Category:								
I		□ Constructed	□ Restoratio	n (Rehabilitation Ol	R Enhance	ement)			
		ored, does the ac entire wetland	□ porti	on of the wetland					
What				wetland at the time oil, but no surface wa		nent? dry			
What	□ long-du	ent hydrologic re		X short-duration					
Does	the vernal po	ol system conne	ct with the flo	odplain of a nearby	stream?				
	_	=	X no						
Dh	oto Identifica	tion Numbers a	nd Description	an:					
	Photo ID	Description	Latitude	Longitude	1	Datum			
	No.	Description	Latitude	Longitude		Datam			
1	5643	North							
2	5641	South							
3	5642	East							
4	5640	West							
5									
6									
Com	ments: Presen	ice of dumped tras	h; couch, refrig	erator, oil drums, plas	tic tubing,	plastic buc	kets		

Scoring Sheet: Individual Vernal Pools

AA Name: V302		(m/d/y)	05/15/2012				
Attributes and Me	Alpha.	Numeric		Comments			
Buffer and Landscape Conte							
(A) Aquatic A	Α	12	Avg= 57%	Aqutic Area			
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	Α	12			Avg=250 m	neters	
(D): Buffer Condition	В	9		1	Litter pres		
Initial Attribute Score =	A + [D	х (ВхС) 1/2] 1/2			ribute Score =	
	L		, ı	22.4	(Initial Sc	ore/24) x 100	93.3
Hydrology				-			
		er Source	В	9			
		roperiod	Α	12			
Hydrolo	gic Con	nectivity	Α	12			
Initial	Initial Attribute Score					ribute Score =	
				33	(Initial Sc	ore/36) x 100	91.7
Physical Structure				T			
Structura			D	3	2 patch typ	oes	
Topogra	phic Co	mplexity	С	6			
Initial	Attribu	te Score				ribute Score =	
				9	(Initial Sc	ore/24) x 100	37.5
Biotic Structure				1			
Horizontal Interspersion and Z			С	6			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	В	9			5 co-domii	nant spp.	
Community composition submetric B: Percent Non-native	۸	12			200/ non n	ativo con	
	Α	12			20% non-n	iative spp.	
Community Composition submetric C: Endemic Species Richness	D	3			0 endemic	snn	
Plant Community Con		1			o chacinic	- JAh.	
(numeric average	1			8			
, C			Final Attr	ribute Score =			
Initial	Attribu	te Score		14		ore/24) x 100	58.3
Overall AA Score (Av			`	70.2			

Worksheet 8: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
No stressors.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse	Х	Х
Comments	•	
Degrading waste (couch, refrigerator, oil buckets)		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on	
		AA	
Mowing, grazing, excessive herbivory (within AA)			
Excessive human visitation			
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)			
Tree cutting/sapling removal			
Removal of woody debris			
Treatment of non-native and nuisance plant species			
Pesticide application or vector control			
Biological resource extraction or stocking (fisheries, aquaculture)			
Excessive organic debris in matrix (for vernal pools)			
Lack of vegetation management to conserve natural resources			
Lack of treatment of invasive plants adjacent to AA or buffer			
Comments	•		
No stressors.			

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	X
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

Basic Information Sheet: Riverine Wetlands

CRAM Site ID: TeV	 'elde					
Project Site ID: FB						
Assessment Area N						
Project Name: FB H	ST Mitigation		Date (m/d/y)	05	14	12
Assessment Team	Members for	This AA:				
A. Langston						
G. Peracca						
E. Maroni						
Average Bankfull V	/idth: 18 m					
Approximate Leng	th of AA (10	times bankfull wid	th, min 100 m, ma	x 200 m)	: 180 m	
Upstream Point La	titude:		Longitude:			
Downstream Point	Latitude:		Longitude:			
Wetland Sub-type:						
	X Confined	I □ Nor	i-confined			
AA Category:						
☐ Restoration ☐	Mitigation 	Impacted X Am	bient X Referer	nce 🗆	Training	
☐ Other:						
Did the river/strea	m have flowi	ng water at the ti	me of the assessi	ment? [] yes X 1	no
What is the appare	nt hydrologic	c flow regime of t	he reach you are	assessin	ıg?	
The hydrologic flow re Perennial streams condi immediately following water for periods long	oct water all year precipitation e	er long, whereas <i>epher</i> events. <i>Intermittent</i> str	<i>meral</i> streams conducted are dry for part	ct water of t of the ye	nly during a	and iduct
□ pere	nnial	X intermittent	□ eph	emeral		

	Photo ID No.	Description	Latitude	Longitude	Datum
1	5620, 5621	Upstream			
2	5623	Middle Left			
3	5622	Middle Right			
1	5624	Downstream			
5					
5					
7					
3					
)					
10					
nn	ocation Descr				
mn					
mn					
nn					
mn					

Scoring Sheet: Riverine Wetlands

AA Name: R300	me: R300				(m/d/y) 05 14	12
Attribute 1: Buffer and Landscape Context					Comments	
Aquatic Area Abundance Sc	ore (D)		Alpha.	Numeric		
Aquade Area Abundance Sc	ore (D)		Α	12	20 meters	
Buffer:	1					
Buffer submetric A:	Alpha.	Numeric				
Percent of AA with Buffer	Α	12			100% with buffer	
Buffer submetric B: Average Buffer Width	D	3			Average = 8.8 meters	
Buffer submetric C: Buffer Condition	D	3			Buffer is road berm	
Raw Attribute So	core = I	D+[C x (/	1 x B) ^{1/2}] ^{1/2}		Final Attribute Score =	
(use numerical valu		. ,	, -	16.2	(Raw Score/24) x 100	67.7
Attribute 2: Hydrology				J		Į.
2 02			Alpha.	Numeric	>20% drainage basin is	
Water Source			С	6	agricultural	
Channel Stability			В	9		
Hydrologic Connectivity			С	6	Average = 1.2 meters	
Raw Attribute Score = su	ım of n	umeric	scores	21	Final Attribute Score = (Raw Score/36) x 100	
Attribute 3: Physical Structu	ure					
			Alpha.	Numeric	2 patch types	
Structural Patch Richness			D	3		
Topographic Complexity			С	6		I
Raw Attribute Score = su	ım of n	umeric	scores	9	Final Attribute Score = (Raw Score/24) x 100	37.5
Attribute 4: Biotic Structure	2					
Plant Community Composition	on (base	d on sub	-metrics /	A-C)		
	Alpha.	Numeric			2 2 2 2 2 2 2 2 2 2	
Plant Community submetric A: Number of plant layers	В	9			3 layers	
Plant Community submetric B: Number of Co-dominant species	С	6			7 co-dominant spp.	
Plant Community submetric C: Percent Invasion	С	6			43% invasive spp.	
Plant Co	mmunii	ty Comp	osition			
(average of submetrics A-C round		, ,		7		
Horizontal Interspersion			С	6		
Vertical Biotic Structure			С	6		
Raw Attribute Score = su	ım of n	umeric	scores	19	Final Attribute Score = (Raw Score/36) x 100	52.8
Overall AA Score (average	ge of for	ır final A	ttribute S	cores)	54.1	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)	Х	Х
Flow diversions or unnatural inflows	Х	Х
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)		Significant negative
,	Present	effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)	X	X
Plowing/Discing (N/A for restoration areas)	Х	Х
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)	Х	Х
Trash or refuse		
Comments		
Photos 5625-5627 are manure piles		
·		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)	ricsent	
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control	Х	
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)	Х	Х
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

Basic Information Sheet: Riverine Wetlands

CRAM Site ID: TeVelde
Project Site ID: FB HST CMP
Assessment Area Name: R302
Project Name: FB HST Mitigation Date (m/d/y) 05 14 12
Assessment Team Members for This AA:
A. Langston
G. Peracca
E. Maroni
Average Bankfull Width: 5.4 meters
Approximate Length of AA (10 times bankfull width, min 100 m, max 200 m): 100 meters
Upstream Point Latitude: Longitude:
Downstream Point Latitude: Longitude:
Wetland Sub-type:
X Confined □ Non-confined
AA Category:
☐ Restoration ☐ Mitigation ☐ Impacted X Ambient X Reference ☐ Training
Other:
Did the river/stream have flowing water at the time of the assessment? ☐ yes X no
What is the apparent hydrologic flow regime of the reach you are assessing?
The hydrologic flow regime of a stream describes the frequency with which the channel conducts water. Perennial streams conduct water all year long, whereas ephemeral streams conduct water only during and immediately following precipitation events. Intermittent streams are dry for part of the year, but conduct water for periods longer than ephemeral streams, as a function of watershed size and water source.
☐ perennial X intermittent ☐ ephemeral

	Photo ID No.	Description	Latitude	Longitude	Datum
1	5632	Upstream			
2	5630	Middle Left			
3	5631	Middle Right			
1	5628, 5629	Downstream			
5					
6					
7					
3					
10					
	ocation Descr	iption.			
	nents:	ipiioii.			
		iption.			
		iption.			
		iption.			

Scoring Sheet: Riverine Wetlands

AA Name: R302				(m/d/y) 05 14	12	
Attribute 1: Buffer and Lan	dscape	Context	t		Comments	
Aquatic Area Abundance Score (D)			Alpha.	Numeric		
			Α	12		
Buffer:	1					
Buffer submetric A:	Alpha.	Numeric				
Percent of AA with Buffer	Α	12			100% w/buffer	
Buffer submetric B:					Average = 7.8 meters	
Average Buffer Width	D	3				
Buffer submetric C: Buffer Condition	D	3				
Raw Attribute So			A v B)½ ½		Final Attribute Score =	
(use numerical valu				16.2	(Raw Score/24) x 100	67.7
Attribute 2: Hydrology					, ,	I
			Alpha.	Numeric		
Water Source			С	6		
Channel Stability			В	9		
Hydrologic Connectivity			Α	12	Entrenchment ratio = 2.3	
Raw Attribute Score = st	ım of n	umeric s	scores	27	Final Attribute Score = (Raw Score/36) x 100	75
Attribute 3: Physical Struct	ure			•		•
•			Alpha.	Numeric		
Structural Patch Richness			D	3	2 patch types	
Topographic Complexity			С	6		
Raw Attribute Score = si	um of n	umeric s	scores	9	Final Attribute Score = (Raw Score/24) x 100	37.5
Attribute 4: Biotic Structure	2					
Plant Community Composition	on (base	d on sub	-metrics A	1-C)		
	Alpha.	Numeric			4 1	
Plant Community submetric A: Number of plant layers	Α	12			4 layers	
Plant Community submetric B:						
Number of Co-dominant species	В	9			10 co-dominant spp	
Plant Community submetric C:						
Percent Invasion	<u> </u>	6			40% invasion	
Plant Community Comp (average of submetrics A-C rounded to nearest whole				9		
Horizontal Interspersion			В	9		
Vertical Biotic Structure			С	6		
Raw Attribute Score = sum of numeric s			scores	24	Final Attribute Score = (Raw Score/36) x 100	67.7
Overall AA Score (average	ge of for	ır final A	ttribute S	cores)	61.7	•
,	-				01.7	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)	Х	Х
Flow diversions or unnatural inflows	Х	Х
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)	Х	
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology	Х	
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)	Х	Х
Plowing/Discing (N/A for restoration areas)	Х	Х
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)	Х	Х
Trash or refuse	Х	

Comments

Sediment is transported into drainage when farmer plows, discs, and grades adjacent fields.
Assuming some bacteria/pathogen impairment from adjacent livestock waste piles.

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., Virginia opossum and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	
<u>L</u>		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)	Х	Х
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		<u>'</u>

Basic Information Sheet: Perennial Depressional Wetlands

Your Name: A. Langs	ton			
Assessment Area Na	ame: Valadez D3	03		
Assessment No.		Date	(mm/dd/yyyy): 05/17/2012
Assessment Team M	Jombors for Th	sia AA		
G. Peracca	Tellibers for Tr	IIS AA		
C. I Cluccu				
A. Langston				
E. Maroni				
	_			_
AA Category:				
[] Restoration	[]]	Titioation	[] Impacted	X Other
		Ittigation	[] Impacted	A Other
Which best descri	bes the type of	depressional wetla	nd?	
[] freshwater r	marsh []	alkaline marsh	[] alkali flat	X other (specify):
Seasonal Basin.				
Which best descri	bes the hydrolo	ogic state of the wet	tland at the time	e of assessment?
[] ponded/i	nundated	[] saturated soil, b	out no surface wa	iter X dry
What is the appare	ent hydrologic	regime of the wetla		,
				> 0 1 6.1
		re defined as supportin duration depressional v		
		ths of the year. Short-		
between 2 weeks and				
[]long	-duration	[] medium-durati	on X short-	duration
		the floodplain of a		[] ves X no
Does your wettand	1 connect with	the hoodplant of a	ilearby stream:	[] yes A no
Is the topographic	basin of the w	retland [] distinct	t or X indistinc	et ?
An indistinct, such as	vernal pool com	olexes and large wet me	eadows, which ma	v be intricately
				ographic basin is one that
		and and upland. Exan	ples of such featu	ires are seasonal,
depressional wetlands	s in very low-grad	ient landscapes.		
Photo Identificati	on Numbers at	nd Description:		
Photo ID	Description	Latitude	Longitude	Datum
No.	1		8	
1 1284	North			
2 1285	South			
3 1286	East			
4 1287	West			

Scoring Sheet: Perennial Depressional Wetlands

AA Name: Valadez D303			Date: 05/17/2012		
Attributes and Metrics	Sco	ores	Comments		
Buffer and Landscape Context					
Landscape Connectivity (D)		,	3	Avg=8.8%	
Buffer submetric A:					
Percent of AA with Buffer	12			100% with buffer	
Buffer submetric B:					
Average Buffer Width	12			Avg= 232.5 meters	
Buffer submetric C:					
Buffer Condition	6		T		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attributes$	ute Score	Raw	Final	Final Attribute Score =	
		11.5	47.9	(Raw Score/24)100	47.9
Hydrology					
Wat	er Source	!	9		
Hydroperiod or Channe	el Stability	!	9		
Hydrologic Co	nnectivity		6		
Atteib	ute Score	Raw	Final	Final Attribute Score =	
Attilbo	ate Score	24	66.7	(Raw Score/36)100	66.7
Physical Structure					
Structural Patch	Richness	(6	6 patch types	
Topographic Co	omplexity	-	6		
A 44:1.	ute Score	Raw	Final	Final Attribute Score =	
Attribu	ute Score	12	50	(Raw Score/24)100	50
Biotic Structure					
Plant Community submetric A:					
Number of Plant Layers	9			3 layers	
Plant Community submetric B:					
Number of Co-dominant species	6			7 co-dominant spp.	
Plant Community submetric C:					
Percent Invasion	6			43% invasion	
Plant Commun	-				
(average of subm			7		
Horizontal Interspersion and			L2		
Vertical Biotic	Structure		6		
Attrib	ute Score	Raw	Final	Final Attribute Score =	
	•	25	69.4	(Raw Score/36)100	69.4
Overall AA Score (Aver	Overall AA Score (Average of Fina				
	0			58.5	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
	·	-

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)	Х	
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments	<u>.</u>	

to have negative effect on AA	Significant negative effect on AA

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present and likely to have negative effect on AA	Significant negative effect on AA
Urban residential	X	
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

Basic Information: Individual Vernal Pool

CRAM Site ID: Valadez							
Project Site ID: FB HST Mitigation Site							
Assessment Area Name: V303							
Project Name: FB HST Mitigation Site Date $(m/d/y)$ 5 17 12							
Assessment Team Members for This AA							
G. Peracca							
E. Maroni							
A. Langston							
Wetland Category:							
X Natural □ Constructed □ Restoration (Rehabilitation	OR En	nhancei	ment)				
If Created or Restored, does the action encompass: X entire wetland □ portion of the wetland							
What best describes the hydrologic state of the wetland at the tin ponded/inundated saturated soil, but no surface			nent? dry				
What is the apparent hydrologic regime of the wetland? □ long-duration □ medium-duration X short-duration	l						
Does the vernal pool system connect with the floodplain of a near upon yes X no	rby stro	eam?					
Photo Identification Numbers and Description:							
Photo ID Description Latitude Longitud	de	I	Datum				
1 1295 North							
2 1294 South							
3 1297 East							
4 1296 West							
5							
6							
Comments:				,			

Scoring Sheet: Individual Vernal Pools

AA Name: V303					(m/d/y)	05/17/2012	
Attributes and Metrics Alpha. Numeric						Comments	
Buffer and Landscape Conte							
(A) Aquatic A	rea Con	nectivity	D	3	Avg=2%		
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	Α	12			Avg=250 n	n	
(D): Buffer Condition	В	9					
Initial Attribute Score =	A + [D	x (B x C) ^{1/2}] ^{1/2}			ribute Score =	
		(2 0	7]	13.4	(Initial Sc	core/24) x 100	55.8
Hydrology							
		r Source		12			
		roperiod		12			
Hydrolo	gic Con	nectivity	А	12		Ţ	
Initial .	Attribu	te Score				ribute Score =	
				36	(Initial Sc	core/36) x 100	100
Physical Structure		n. 1					
Structura			D	3	2 patch ty	pes	
Topogra	ohic Co	mplexity	С	6	T' 1 4		
Initial	Attribu	te Score		0		ribute Score =	27.5
D' ' C'				9	(Initial Sc	ore/24) x 100	37.5
Biotic Structure	,						
Horizontal Interspersion and Z		1	D	3			
Community composition submetric A: Number of Co-dominants	Alpha.	Numeric 6			3 co-domi	nant con	
Community composition submetric		0			5 CO-GOITIII	nant spp.	
B: Percent Non-native	В	9			33% non-r	native snn	
Community Composition submetric					23/0110111	с орр.	
C: Endemic Species Richness	D	3			0 endemic	spp.	
Plant Community Con							
(numeric average				6			
Initial	Attribu	te Score		0		ribute Score =	37.5
Overall AA Score (Av	verage (of Final	Attribut	e Scores)		57.7	

Worksheet 8: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)	Х	
Actively managed hydrology		
Comments		

DINGLOAL CUDICULIDE AUTODUTE		Present and likely
PHYSICAL STRUCTURE ATTRIBUTE	Present	to have significant
(WITHIN 50 M OF AA)		negative effect on
		AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets) Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential	Х	
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	Х	Х
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		

Basic Information: Vernal Pool Systems

CRA	CRAM Site ID: Yang Property (CMP)							
Proje	Project Site ID: Fresno to Bakersfield HST							
Assessment Area Name: VS300								
Project Name: Fresno to Bakersfield HST (CMP) Date $(m/d/y)$ 5 17 12								
Asse	Assessment Team Members for This AA							
A. Lar	A. Langston G. Peracca							
E.Mai	E.Maroni							
	and Category: X Natural	Constructed	□ Restoration	(Rehabilitation OI	R Enhance	ment)		
If Cr		red, does the act	-	ss: on of the wetland				
What		s the hydrologic l/inundated		etland at the time of the line		nent? dry		
What	t is the appare r	nt hydrologic reg ation □ medi	gime of the we	etland? X short-duration				
Does	the vernal po	•	ct with the floo X no	odplain of a nearby	stream?			
Ph		ion Numbers ar	nd Description					
	Photo ID	Description	Latitude	Longitude	1	Datum		
	No.	NI a vet la	25 002001	440.2000011				
1	1267	North	35.80388N	119.39008W				
3	1268	South						
4	1269 1270	East West						
5	12/0	VV C3t						
6								
	ments:			<u> </u>				

Scoring Sheet: Vernal Pool Systems

					(m/d/y) 05/19/2012	
Attributes and Metrics				Numerio	Comments/Scores	
Buffer and Landscape Context			<u> </u>			
(A) Aquatic Area Connectivity			Α	12	Avg=57.5%	
(B): Percent of AA with	Alpha.	Numeric				
Buffer	A	12			100% with buffer	
(C): Average Buffer Width	Α	12			Avg=196.9 meters	
(D): Buffer Condition	В	9				
		1/2 - 1/2			Final Attribute Score =	
Initial Attribute Score = $A + [Dx]$	$(B \times C)$	/2] /2		22.4	(Initial Score/24) x 100	93.3
Hydrology						
	Wat	er Source	В	9		
	Нус	droperiod	Α	12		
Hydrolo	gic Cor	nnectivity	Α	12		
Tuiti at Aggetta de Caraca	_	-		•	Final Attribute Score =	
Initial Attribute Score				33	(Initial Score/36) x 100	91.7
Physical Structure						
Structura	l Patch	Richness	С	6	7 patch types	
Pool and	l Swale	Density	Α	12	Avg=68.8 %	
Topogra	phic Co	mplexity	С	6		
	1	1 ,			Final Attribute Score =	
Initial Attribute Score				24	(Initial Score/36) x 100	66.7
Biotic Structure						
	Alpha.	Numerio				
Plant Community submetric A:	1					
Number of Co-dominant species	С	6			Avg = 3 co-dominant spp.	
Plant Community submetric B:						
Percent Non Native	С	6			37.5% non-native spp.	
Plant Community submetric C:						
Endemic Species Richness	D	3			0 endemic spp.	
Plant Community Metric	1	1				
(average of submetrics A-C)				5		
Horizontal Interspersion and Zonation	n		_			
			В	9	E' 1 A '1 O	
Initial Attribute Score					Final Attribute Score =	
				14	(Initial Score/24) x 100	58.3
Overall AA Score (Average of Fina	l Attrib	ute Scor	es)			
Sveran This ocole (riverage of I mai ritinoute ocoles)					77.5	

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
No Stressors.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		
No Stressors.		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	<u>. </u>	
No Stressors.		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	Х
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments BNSF railroad corridor.	1	•

Basic Information: Vernal Pool Systems

CRAM Site ID: Yang Property (CMP)								
Project Site ID: Fresno to Bakersfield HST								
Assessment Area Name: VS301								
Project Name: Fresno to Bakersfield HST (CMP) Date (m/d/y) 5 15 12								
Assessment Team Members for This AA								
A. Langston G. Peracca								
E. Maroni								
Wetla	and Category:							
X Natural □ Constructed □ Restoration (Rehabilitation OR Enhancement)								
100	. 1 . D		.•					
If Cr		red, does the act	-					
	⊔ e	ntire wetland	⊔ portio	on of the wetland				
W/1	- 1 4 1	- 41 11111111		مسلم مراد مراد به المسالم	- C			
wnai		•		tetland at the time		_		
	□ pondec	d/inundated	□ saturated soi	l, but no surface wa	ter X	dry		
W/1			a £ 41. a	ر الم سرم الم				
wnai	is the appare	nt hydrologic reş	gime of the we	euanu?				
	□ long-dur	ation □ medi	um-duration	X short-duration				
Does	the vernal po	•		odplain of a nearby	stream?			
		□ yes	X no					
Ph	oto Identificat	tion Numbers ar	nd Description	··				
	Photo ID	Description	Latitude	Longitude]	Datum		
	No.	1						
1	5653	North	35º48'01 N	119º23'25 W	1			
2	5657	South						
3	5656	East						
4	5654	West						
5								
	6							
Comments:,								

Scoring Sheet: Vernal Pool Systems

AA Name: VS301				(m/d/y) 05/15/2012			
Attributes and Metrics				Numeri	Comments/Scores		
Buffer and Landscape Context							
(A) Aquatic Area Connectivity				12	Avg= 92.9%		
(B): Percent of AA with Alpha. Numeric							
Buffer	A	12			100% with buffer		
(C): Average Buffer Width A 12					Avg= 250 meters		
(D): Buffer Condition	В	9					
		1/2 - 1/2			Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	$(B \times C)$	/2] /2		22.4	(Initial Score/24) x 100	93.3	
Hydrology							
	Wat	er Source	В	9			
	Нус	droperiod	Α	12			
Hydrolo	gic Cor	nnectivity	Α	12			
Initial Attribute Score					Final Attribute Score =		
Imital Attribute Score			33		(Initial Score/36) x 100	91.7	
Physical Structure							
Structura	l Patch	Richness	С	6	7 patch types		
Pool and	l Swale	Density	Α	12	Avg= 52.5 %		
Topographic Complexity			Α	12			
					Final Attribute Score =		
Initial Attribute Score				30	(Initial Score/36) x 100	83.3	
Biotic Structure							
	Alpha.	Numerio					
Plant Community submetric A:							
Number of Co-dominant species	В	9			Avg = 4.7 co-dominant spp).	
Plant Community submetric B:							
Percent Non Native	D	3			50% non-native spp.		
Plant Community submetric C:							
Endemic Species Richness	D	3			0 endemic spp.		
Plant Community Metric	_1	1					
(average of submetrics A-C)				5			
Horizontal Interspersion and Zonation							
·			Α	12			
Initial Attribute Score					Final Attribute Score =		
			17		(Initial Score/24) x 100	70.8	
Overall AA Score (Average of Final Attribute Scores							
Overall 111 Score (riverage of 1 mar richisate Score					84.8		

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
No Stressors.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		
No Stressors.		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	
No Stressors.		

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries	Х	Х
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		•

Basic Information: Vernal Pool Systems

CRAM Site ID: Yang Property (CMP)								
Project Site ID: Fresno to Bakersfield HST								
Asses	sment Area N	Name: VS303						
Proje	ct Name: Fres	no to Bakersfield H	IST (CMP)	Date (m/d/y)	5	15	12	
Asses	sment Team	Members for Th	is AA					
A. Lan	gston		G. Peracca					
E.Maroni								
	and Category: (Natural	□ Constructed	□ Restoration	(Rehabilitation OF	R Enhance	ement)		
If Cre		ored, does the actentire wetland	-	ss: on of the wetland				
What		es the hydrologic d/inundated		etland at the time o		nent? dry		
What	is the appare □ long-dur	nt hydrologic re g ation □ medi	gime of the we	etland? X short-duration				
Does	the vernal po	•	ct with the floo X no	odplain of a nearby	stream?			
Ph	oto Identifica	tion Numbers ar	nd Description	n:				
	Photo ID	Description	Latitude	Longitude	1	Datum		
	No.							
1	5651	North						
2	5649	South						
3	5652	East						
4	5650	West						
5								
6								
Com	Comments:							

Scoring Sheet: Vernal Pool Systems

AA Name: VS303			(m/d/y) 05/15/2012				
Attributes and Metrics			Alpha.	Numerio	Comments/Scores		
Buffer and Landscape Context							
(A) Aquatic Area Connectivity			Α	12	Avg= 95%		
(B): Percent of AA with	Alpha.	Numeric					
Buffer	Α	12			100% with buffer		
(C): Average Buffer Width A 12					Avg= 250 meters		
(D): Buffer Condition	В	9					
	~ ~	1/2 - 1/2			Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	(B x C)	/		22.4	(Initial Score/24) x 100	93.3	
Hydrology							
	Wate	er Source	В	9			
	Hyd	lroperiod	Α	12			
Hydrolo	gic Cor	nectivity	Α	12			
Initial Attribute Score					Final Attribute Score =		
Illitiai Attribute Score				33	(Initial Score/36) x 100	91.7	
Physical Structure							
Structura	l Patch	Richness	В	9	9 patch types		
Pool and	Swale	Density	Α	12	Avg= 76.3 %		
Topogra	phic Co	mplexity	С	6			
T 11 1 A 11 1 0		<u> </u>			Final Attribute Score =		
Initial Attribute Score				27	(Initial Score/36) x 100	75.0	
Biotic Structure							
	Alpha.	Numeric					
Plant Community submetric A:	1						
Number of Co-dominant species	В	9			Avg = 4 co-dominant spp.		
Plant Community submetric B:							
Percent Non Native	С	6			43% non-native spp.		
Plant Community submetric C:							
Endemic Species Richness	D	3			0 endemic spp.		
Plant Community Metric		1					
(average of submetrics A-C)				6			
Horizontal Interspersion and Zonatio	n						
			В	9	E' 1 A '1 . C		
Initial Attribute Score				15	Final Attribute Score = (Initial Score/24) x 100	62.5	
O and I AA Carry (A CET)	A 44 **	4 - 0	>	10	(1111111111111111111111111111111111111	02.3	
Overall AA Score (Average of Final	Aurib	ute Score	es)		80.6		

Worksheet 9: Stressor Checklist.

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees		
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology		
Comments		
No Stressors.		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and likely to have significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)		
Plowing/Discing (N/A for restoration areas)		
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed		
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		
No Stressors.		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments		
No Stressors.		
	_	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Present and likely to have significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture		
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		
No Stressors.		

Basic Information Sheet: Riverine Wetlands

CRAM Site ID: Clark River Ranch	1				
Project Site ID: FB HST CMP					
Assessment Area Name: R401					
Project Name: FB HST Mitigation	1	Date (m/d/y)	01	03	13
Assessment Team Members fo	r This AA:				
A. Langston					
T. Lim					
Average Bankfull Width: 33 m					
Approximate Length of AA (10	times bankfull width	, min 100 m, ma	x 200 m): 200 m	
Upstream Point Latitude:	L	ongitude:			
Downstream Point Latitude:	L	ongitude:			
Wetland Sub-type:					
X Confine	d □ Non-o	confined			
AA Category:					
☐ Restoration ☐ Mitigation [☐ Impacted X Amb	ient X Referer	nce \square	l Training	
☐ Other:					
Did the river/stream have flow	ing water at the tim	ne of the assess	ment? l	⊐ yes x	Ino
What is the apparent hydrologi	c flow regime of th	e reach you are	assessi	ng?	
The hydrologic flow regime of a stream end of a stream conduct water all yes immediately following precipitation water for periods longer than ephemical endough the conductive of the conductive flower flow	ar long, whereas <i>epheme</i> events. <i>Intermittent</i> strea	eral streams conductions are dry for par	ct water of t of the y	only during year, but co	g and onduct
X perennial	☐ intermittent	□ eph	emeral		

	Photo ID No.	Description	Latitude	Longitude	Datum
1	1977	Upstream			
2	1973, 1974	Middle Left			
3	1975, 1976	Middle Right			
4	1972	Downstream			
5					
6					
7					
3					
9					
10					
	Fork Kings River nents:	•			
		-			

Scoring Sheet: Riverine Wetlands

AA Name: R401					(m/d/y) 01 03	13
Attribute 1: Buffer and Lan	dscape	Context	ţ		Comments	
Aquatic Area Abundance Sc	o r e (D)		Alpha.	Numeric		
riquatic rirea ribunidance se	ore (D)		Α	12	100m total non-buffe	r
Buffer:	1	_				
Buffer submetric A:	Alpha.	Numeric			1000/ 11 15	
Percent of AA with Buffer	Α	12			100% with buffer	
Buffer submetric B:					Average = 19.6 meters	
Average Buffer Width	D	3			2.66	
Buffer submetric C: Buffer Condition	С	6			Buffer is road berm	
Raw Attribute So			A v B)½1½		Final Attribute Score =	
(use numerical valu		. ,	, ,	18	(Raw Score/24) x 100	75.0
Attribute 2: Hydrology				I		
			Alpha.	Numeric	>20% drainage basin is	
Water Source			С	6	agricultural	
Channel Stability			В	9		
Hydrologic Connectivity			В	9	Average = 1.63 meters	
Raw Attribute Score = su	umeric	scores	24	Final Attribute Score = (Raw Score/36) x 100	66.7	
Attribute 3: Physical Struct	ure		ı	1		
			Alpha.	Numeric	0 patch types	
Structural Patch Richness			D	3		
Topographic Complexity			С	6		
Raw Attribute Score = su	ım of n	umeric	scores	9	Final Attribute Score = (Raw Score/24) x 100	37.5
Attribute 4: Biotic Structure						
Plant Community Composition			-metrics 1	A-C)		
Plant Community submetric A:	Alpha.	Numeric			3 layers	
Number of plant layers	В	9			3 layers	
Plant Community submetric B:						
Number of Co-dominant species	С	6			6 co-dominant spp.	
Plant Community submetric C:						
Percent Invasion	В .	9			17% invasive spp.	
Plant Co (average of submetrics A-C round				8		
Horizontal Interspersion			C	6		
Vertical Biotic Structure			С	6		
Raw Attribute Score = su	umeric	scores	20	Final Attribute Score = (Raw Score/36) x 100	55.6	
Overall AA Score (average	ge of for	ır final A	ttribute S	cores)	58.7	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows		
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	Х
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology	Х	Х
Comments		

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)		Significant negative
(WITHIN 30 M OT MA)	Present	effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)	X	
Plowing/Discing (N/A for restoration areas)	Х	Х
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed	X	Х
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		·

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Significant negative effect on AA
Urban residential		
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)		
Dryland farming		
Intensive row-crop agriculture	Х	Х
Orchards/nurseries	Х	Х
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		<u>'</u>

Basic Information Sheet: Riverine Wetlands

CRAM Site ID: Clark River Ranch	1				
Project Site ID: FB HST CMP					
Assessment Area Name: R402					
Project Name: FB HST Mitigation	1	Date (m/d/y)	01	04	13
Assessment Team Members fo	r This AA:				
A. Langston					
T. Lim					
Average Bankfull Width: 31 m					
Approximate Length of AA (10	times bankfull width	n, min 100 m, ma	x 200 m): 200 m	
Upstream Point Latitude:	L	ongitude:			
Downstream Point Latitude:	L	ongitude:			
Wetland Sub-type:					
X Confine	d □ Non-	confined			
AA Category:					
☐ Restoration ☐ Mitigation [☐ Impacted X Amb	oient X Referer	nce 🗆	l Training	
☐ Other:					
Did the river/stream have flow	ing water at the tin	ne of the assess	ment? [⊐ yes x	(no
What is the apparent hydrologi	c flow regime of th	e reach you are	assessi	ng?	
The hydrologic flow regime of a streat Perennial streams conduct water all yes immediately following precipitation of water for periods longer than ephemory	ar long, whereas <i>ephemo</i> events. <i>Intermittent</i> strea	eral streams conductions are dry for par	ct water of t of the y	only during year, but co	g and onduct
X perennial	☐ intermittent	□ eph	emeral		

	Photo ID	Description	Latitude	Longitude	Datum
	No.				
	1996	Upstream			
2	1994	Middle Left			
3	1995	Middle Right			
1	1993	Downstream			
5					
5					
7					
3					
)					
10					
т.	ocation Descr				

Comments:

1-sided AA due to presence of water and steep banks.

Additional photos: 1997-2001

Scoring Sheet: Riverine Wetlands

AA Name: R402				(m/d/y) 01 04	13	
Attribute 1: Buffer and Landscape Context					Comments	
Aquatic Area Abundance Score (D)			Alpha.	Numeric		
			В	9	100m total non-buffer (1-	sided)
Buffer:						
Buffer submetric A:	Alpha.	Numeric				
Percent of AA with Buffer	Α	12			100% with buffer	
Buffer submetric B: Average Buffer Width	D	3			Average = 7 meters	
Buffer submetric C:					Buffer is road berm	
Buffer Condition	С	6				
Raw Attribute So (use numerical valu			, -	15	Final Attribute Score = (Raw Score/24) x 100	62.5
Attribute 2: Hydrology						
7 87			Alpha.	Numeric	>20% drainage basin is	
Water Source			С	6	agricultural	
Channel Stability			В	9		
Hydrologic Connectivity			С	6	Average = 1.54 meters	
Raw Attribute Score = sum of numeric			scores	21	Final Attribute Score = (Raw Score/36) x 100	58.3
Attribute 3: Physical Structure						
			Alpha.	Numeric	5 patch types	
Structural Patch Richness			С	6		
Topographic Complexity			С	6		
Raw Attribute Score = su	ım of n	umeric	scores	12	Final Attribute Score = (Raw Score/24) x 100	50.0
Attribute 4: Biotic Structure						
Plant Community Composition	on (base	d on sub	-metrics /	A-C)		
	Alpha.	Numeric			2 lavara	
Plant Community submetric A: Number of plant layers	В	9			3 layers	
Plant Community submetric B:						
Number of Co-dominant species	С	6			5 co-dominant spp.	
Plant Community submetric C: Percent Invasion	В	9			200/ invenive and	
			•,•		20% invasive spp.	
Plant Community Compares of submetrics A-C rounded to nearest whole			8			
Horizontal Interspersion			В	9		
Vertical Biotic Structure			В	9		
Raw Attribute Score = sum of numeric			scores	26	Final Attribute Score = (Raw Score/36) x 100	72.2
Overall AA Score (average	ge of for	ır final A	ttribute S	cores)	60.8	

Stressor Checklist Worksheet

HYDROLOGY ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Point Source (PS) discharges (POTW, other non-stormwater discharge)		
Non-point Source (Non-PS) discharges (urban runoff, farm drainage)		
Flow diversions or unnatural inflows	Х	Х
Dams (reservoirs, detention basins, recharge basins)		
Flow obstructions (culverts, paved stream crossings)		
Weir/drop structure, tide gates		
Dredged inlet/channel		
Engineered channel (riprap, armored channel bank, bed)		
Dike/levees	Х	Х
Groundwater extraction		
Ditches (borrow, agricultural drainage, mosquito control, etc.)		
Actively managed hydrology	Х	Х
Comments		·

PHYSICAL STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)		
Grading/ compaction (N/A for restoration areas)	Х	Х
Plowing/Discing (N/A for restoration areas)	Х	Х
Resource extraction (sediment, gravel, oil and/or gas)		
Vegetation management		
Excessive sediment or organic debris from watershed	Х	Х
Excessive runoff from watershed		
Nutrient impaired (PS or Non-PS pollution)		
Heavy metal impaired (PS or Non-PS pollution)		
Pesticides or trace organics impaired (PS or Non-PS pollution)		
Bacteria and pathogens impaired (PS or Non-PS pollution)		
Trash or refuse		
Comments		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Significant negative effect on AA
Mowing, grazing, excessive herbivory (within AA)		
Excessive human visitation		
Predation and habitat destruction by non-native vertebrates (e.g., <i>Virginia opossum</i> and domestic predators, such as feral pets)		
Tree cutting/sapling removal		
Removal of woody debris		
Treatment of non-native and nuisance plant species		
Pesticide application or vector control		
Biological resource extraction or stocking (fisheries, aquaculture)		
Excessive organic debris in matrix (for vernal pools)		
Lack of vegetation management to conserve natural resources		
Lack of treatment of invasive plants adjacent to AA or buffer		
Comments	•	

BUFFER AND LANDSCAPE CONTEXT ATTRIBUTE (WITHIN 500 M OF AA)	Present	Significant negative effect on AA
Urban residential	Trescrit	chect on AA
Industrial/commercial		
Military training/Air traffic		
Dams (or other major flow regulation or disruption)	Х	Х
Dryland farming		
Intensive row-crop agriculture	Х	Х
Orchards/nurseries	Х	Х
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor		
Rangeland (livestock rangeland also managed for native vegetation)		
Sports fields and urban parklands (golf courses, soccer fields, etc.)		
Passive recreation (bird-watching, hiking, etc.)		
Active recreation (off-road vehicles, mountain biking, hunting, fishing)		
Physical resource extraction (rock, sediment, oil/gas)		
Biological resource extraction (aquaculture, commercial fisheries)		
Comments		L

Appendix D Photographs of Representative Assessment Areas

Appendix D

Photographs of Representative Assessment Areas





North South





Northwest Southwest





North South









North South









North South









North South









North South





East West





North South





East West





North South









Northeast Southeast





Northwest Southwest





North South









North South









North South





East West





North South



N/A





Northeast Southeast





Northwest Southwest





Northeast Southeast





Northwest Southwest

Assessment Area R157A



N/A

North South





N/A N/A

North South









Northeast Southeast





Northwest Southwest





Northwest



Southeast



Northwest Southwest



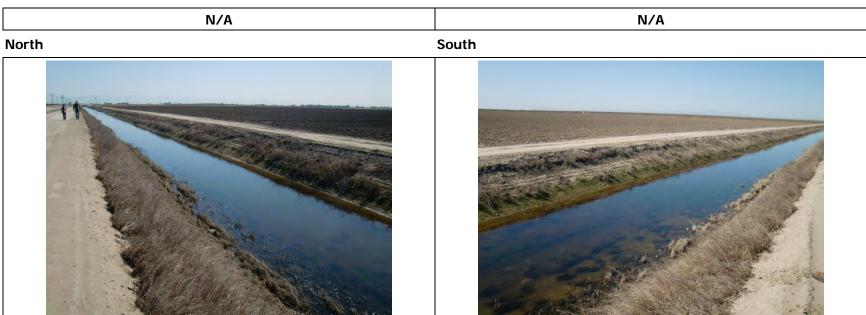


Northeast





Northwest Southwest







Northeast Southeast

N/A N/A

Northwest Southwest





Northeast Southeast





Northwest Southwest





Northeast Southeast





Northwest Southwest





Northeast Southeast





Northwest Southwest





North South









North South









North South





East West





North South





East West

U.S. Department of Transportation Federal Railroad Administration





North South





East West





North South









North South





East West





North South



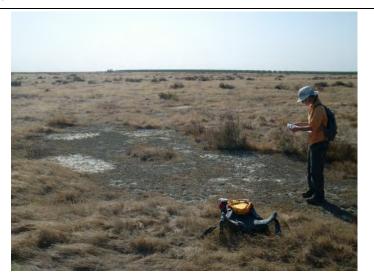






North South









North South





Assessment Area V115A





North South





Assessment Area VS97A





North South





Assessment Area VS99A





North South





East West

Assessment Area VS104A





North South





East West

Assessment Area VS107A





North South









North South





Assessment Area VS114A





North South





Buena Vista Dairy D304





North South





Buena Vista Dairy D305



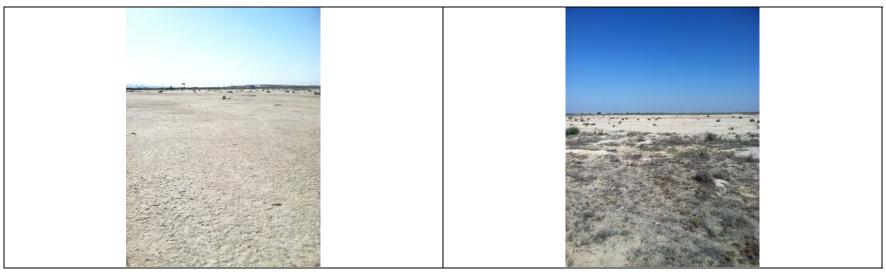


North South





Buena Vista Dairy V305



North South



Buena Vista Dairy VS305





North South





East West

U.S. Department of Transportation Federal Railroad Administration

Buena Vista Dairy VS307





North South





Davis D301





North South





Davis D301A





North South





Staffel V301





North South





Staffel V302





North South





Te Velde R300





Upstream



Middle Left



Middle Right

Downstream

Te Velde R302





Upstream Middle Left





Middle Right Downstream

Valadez D303





North South





Valadez V303





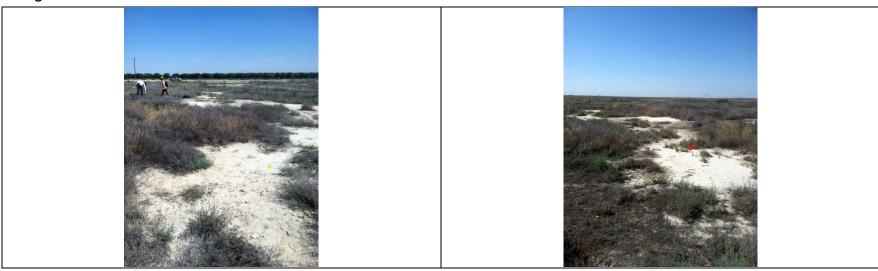
North South





East West

Yang VS300



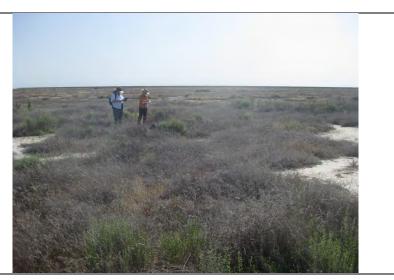
North South



East West

Yang VS301





North South





East West

Yang VS303





North South





East West

Clark River Ranch R401





Upstream Middle Left





Middle Right Downstream

Clark River Ranch R402





Upstream Middle Left





Middle Right Downstream

Appendix E Summary Table of Stressors

Table E-1Summary Table of Stressors for Project AAs

							Δςς	essn	nent	Area	s (no	n-ho	ld X-	=stre	ssor	_	_	_	_	_	_	_	_	effect	on AA	: bol	d X=s	tress	or ha	as sir	nific	ant r	negati	ve e	effect	t on /	AA)					
											J (110	50	la X-	-3110	3301	pres		110 11	Keiy (lve a						X=3		<u> </u>	13 316	J	unt i			1100							
Attribute	Stressor	V62A	765	070	V72	V74	V75	V76A	V76D	V104	V114	V115A	VS97A	VS99A	VS104A	VS107A	VS112	VS114A	D147	D203	D204	D205	D206	D212	D214	R8	R63A	R66	R71A	R146	R149	R150	R157A	R160	R203	R205	R208	R209	R212	R213	R211	R220
	Point source discharges																																									
	Non-point source discharges																					Х						Х				Х							Х		Х	х
	Flow diversions/ unnatural inflows																		х																							
	Dams																									Х										Χ						
₽ &	EL.			Х	Х	Х	Х	Х	Х										Х							х			Х							Х						
Hydrology Attribute (within 50 M of AA)	Weir/drop structure,																									х																
drology thin 50	tide gates Dredged inlet/																																									_
Hyč	Engineered																														Х	X										
	channel Dike/levees	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х		Х	Х	Х								X	Х	Х	Х	Х	X		Х					Х	Х	Χ	Х
	Ground- water																																									
	extraction Ditches																																									
	Actively managed																		х	Х						х			Х										х	Х	Х	
	hydrology Filling or dumping of																																									-
	sediments of soils												Х																													
	Grading/ compaction	Х	Х	Χ	Χ	Χ	Х				Х						Χ		Х								Х	Х	Χ	Χ				Х								
onte	Plowing/ disking																																		Χ	Χ			Χ	Χ	Х	
Attrik f AA)	Resource extraction																																									
ructure 50 M o	Vegetation manage-	Х																								Х	х	х		х	Х	Х										
Physical Structure Attribute (within 50 M of AA)	watershed																									х						х				Х						
	Excessive runoff from watershed																																	х								
	Nutrient impaired																		х																							

Table E-1Summary Table of Stressors for Project AAs

							Ass	essm	nent	Areas	s (no	n-bo	ld X=	=stre	ssor	pres	ent a	nd li	kely 1	to ha	ve a	nega	itive	effec	on	AA;	bold	X=st	tressor	has	signif	icant	nega	ative	effec	t on A	AA)					
Attribute	Stressor	V62A	765	V70	V72	V74	V75	V76A	V76D	V104	V114	V115A	VS97A	VS99A	VS104A	VS107A	VS112	VS114A	D147	D203	D204	D205	D206	D212	D213	D214	R8	R63A	R66	D146	R149	R150	R157A	R160	R203	R205	R208	R209	R212	R213	R211	R220
oute	Heavy metal impaired																																									
Physical Structure Attribute (within 50 M of AA)	Pesticides or trace organics impaired																													>	(
sical Stri (within	Bacteria and pathogens impaired																																									
Phy	Trash or refuse			Х	X	Х	Х													Х	Х								×	>		Х	Х	Х							Х	
	Mowing, grazing, excessive herbivory																																									
	Excessive human visitation																			Х	Х						Х						х									х
	Predation and habitat destruction by non- native vertebrates																																									
Attribute of AA)	,																															х										
cture Att 50 M of ,	Removal of woody debris																														х	х										
Biotic Structure /	Treatment of non-native and nuisance plant species	х																										х	Х	>												
	Pesticide application or vector control	Х																	х					Х	х	х		х		>									х	х	х	
	Biological resource extraction or stocking																																									
	Excessive organic debris in matrix					х																																				

Table E-1Summary Table of Stressors for Project AAs

							Ass	essn	nent	Area	s (no	n-bo	ld X=	-stre	ssor	prese	nt a	nd li	kely	to ha	ve a	nega	ative	effe	ct on A	AA; I	bold X=	stres	sor h	as siç	nific	ant	nega	tive e	effec	t on A	AA)					
Attribute	Stressor	V62A	V65	V70	V72	V74	V75	V76A	V76D	V104	V114	V115A	VS97A	VS99A	VS104A	VS107A	VS112	VS114A	D147	D203	D204	D205	D206	D212		D214	R8 R63A	R66	4	R146	R149	R150	R157A	R160	R203	R205	R208	R209	R212	R213	R211	R220
Biotic Structure Attribute (within 50 M of AA)	Lack of vegetation manage- ment to conserve natural resources																																									
Biotic St (with)	Lack of treatment of invasive plants							Х																																		
	Urban residential																																Х	Х								ļ
	Industrial/co mmercial																				Χ	Х	Χ										Х	Х								ļ
	Military training/air traffic																																									
	Dams																										х															
	Dryland farming			Х	Χ	Х	Χ	Χ	Х																				Х													
pute	Intensive row-crop agriculture																			Х						х	х										Х	х	Х	Х	Х	
and Landscape Context Attribute (within 500 M of AA)	Orchards/ nurseries	Х	Х							Х			Х	Х	Х	Х			Х	Х						х	x X	Х		Х	Х	Х			Х	Х	Х		Х	Χ	Х	Х
ontex of AA	Commercial																																					Х				
pe Co	feedlots Dairies																																									
in 50	Ranching																																					Χ				
d Lan (with	Transporta- tion corridor	Х	Х							Х	Х	Х	Х	Х	Х	х	Х	Х	Х							Х	х	х		Х	Х	Х	Х	Х	Χ				Х	Χ	Х	
	Rangeland																																									
Buffer	Sports fields and urban parklands																																х	Х								
	Passive																																Х	Х								
	recreation Active																										Х															Х
	recreation Physical																										^															
	resource extraction																																Х	Х								
	Biological resource extraction																																									
	TOTAL	7	4	5	5	6	5	4	3	3	3	2	4	2	3	2	3	2	9	5	3	2	1	1	1	4	11 7	7	6	9	6	10	8	10	3	5	2	3	8	7	9	5

AA = assessment area

M = meter(s)



Table E-2Summary Table of Stressors for Potential Mitigation Sites

		Ass	sessment	Areas (r	non-bold	X=stress	or preser	nt and like	ely to hav	e a nega	tive effec	t on AA;	bold X=s	tressor h	as signifi	icant neg	ative eff	ect on A	A)
Attribute			Buer	na Vista I	Dairy		Da	nvis	Sta	ffel	Te V	/elde	Vala	adez		Yang		Clark Rai	River nch
Attr	Stressor	D304	D305	V305	VS305	VS307	D301	D301A	V301	V302	R300	R302	D303	V303	VS300	VS301	VS303	R401	R402
	Point source discharges																		
	Non-point source discharges										Х	Х							
	Flow diversions/ unnatural inflows										Х	Х							Х
	Dams																		
AA)	Flow obstructions						Х	Х											
Attril M of	Weir/drop structure, tide gates																		
Hydrology Attribute (within 50 M of AA)	Dredged inlet/ channel																		
-lydr with	Engineered channel																		
	Dike/levees	Х	Х	Х	Х	Х												Х	Х
	Groundwater extraction																		
	Ditches																		
	Actively managed hydrology																	Х	Х
	Filling or dumping of sediments of soils																		
Physical Structure Attribute (within 50 M of AA)	Grading/ compaction										Х	Х	Х					х	х
	Plowing/disking										Х	Х						Х	Х
cture 0 M	Resource extraction																		
Stru iin 5	Vegetation manage-ment																		
ical	Excessive sediment or organic debris from watershed																	Х	Х
Phys	Excessive runoff from watershed																		
	Nutrient impaired																		
Σ	Heavy metal impaired																		
sical ture oute 50	Pesticides or trace organics impaired																		
Physical Structure Attribute (within 50 M of AA)	Bacteria and pathogens impaired										Х	Х							
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Trash or refuse								Х	Х									

Table E-2Summary Table of Stressors for Potential Mitigation Sites

		Ass	sessment A	Areas (n	on-bold	X=stress	or preser	nt and like	ely to hav	/e a nega	tive effec	t on AA;	bold X=s	tressor h	as signifi	icant neg	jative eff	ect on A	A)
Attribute			Buena	a Vista [Dairy		Da	avis	Sta	ıffel	Te V	/elde	Vala	adez		Yang			River
Attr	Stressor	D304	D305	V305	VS305	VS307	D301	D301A	V301	V302	R300	R302	D303	V303	VS300	VS301	VS303	R401	R402
	Mowing, grazing, excessive herbivory																		
	Excessive human visitation																		
ω	Predation and habitat destruction by non-native vertebrates																		
Biotic Structure Attribute (within 50 M of AA)	Tree cutting/ sapling removal																		
e At M of	Removal of woody debris																		
Joctur 50 I	Treatment of non-native and nuisance plant species																		
Stru	Pesticide application or vector control																		
Siotic (w	Biological resource extraction or stocking																		
<u></u>	Excessive organic debris in matrix																		
	Lack of vegetation management to conserve natural resources																		
	Lack of treatment of invasive plants																		
1	Urban residential												Х						
İ	Industrial/commercial																		
İ	Military training/air traffic																		
	Dams																		х
Attribute	Dryland farming																		
Attril	Intensive row-crop agriculture	Х	Х															х	Х
(AA)	Orchards/nurseries								Х	Х					Х	Х		Х	Х
Cont	Commercial feedlots																		
and Landscape Context (within 500 M of AA)	Dairies																		
ndsc hin 5	Ranching										Х	Х							
d La (with	Transportation corridor			Х	Х	Х	Х	Х					Х	Х					
a an	Rangeland																		
Buffe	Sports fields and urban parklands																		
	Passive recreation						Х	Х											
	Active recreation	Х	Х																
ĺ	Physical resource extraction																		
İ	Biological resource extraction																		
	TOTAL	3	3	2	2	2	3	3	2	2	6	6	3	1	1	1	0	7	9

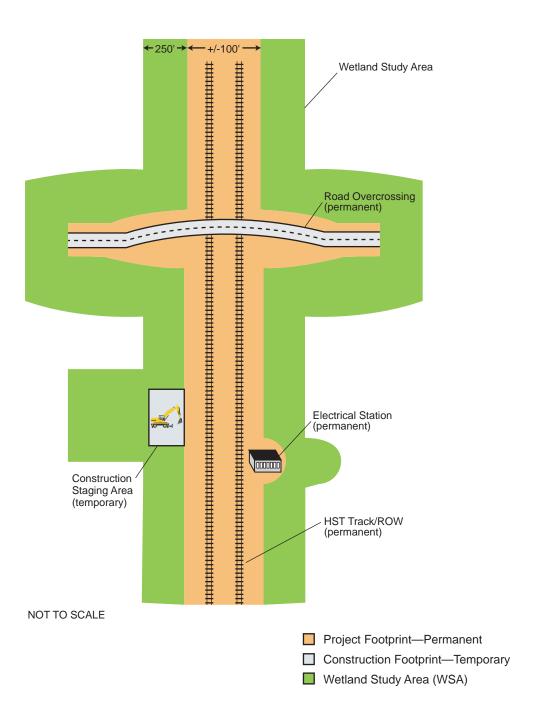
AA assessment area M meter(s)



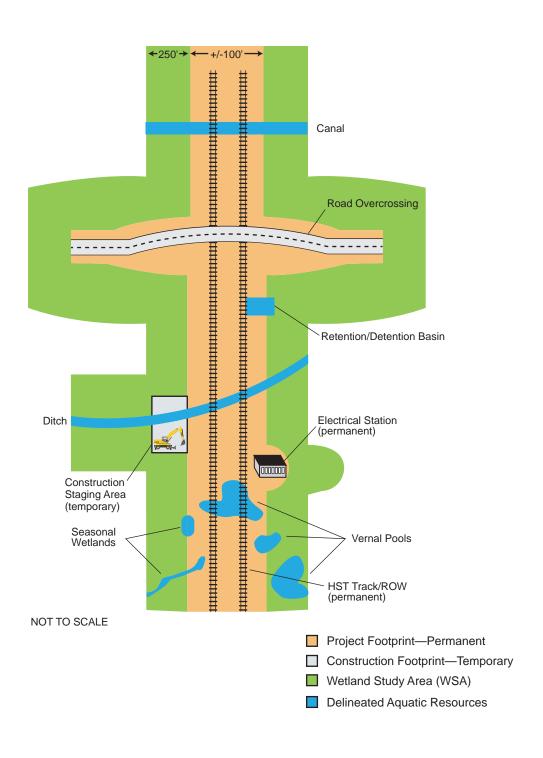
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Appendix B Impact Evaluation Schematics

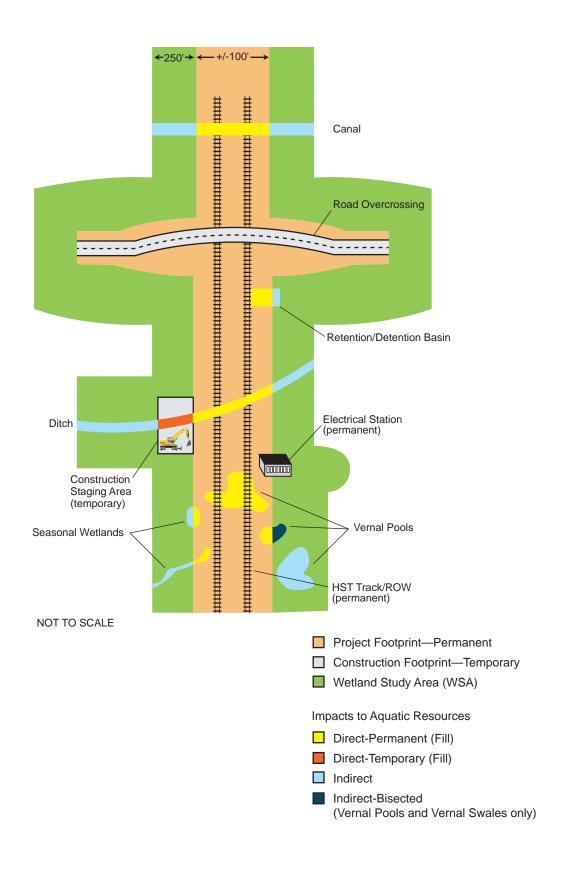
Project and Construction Footprint



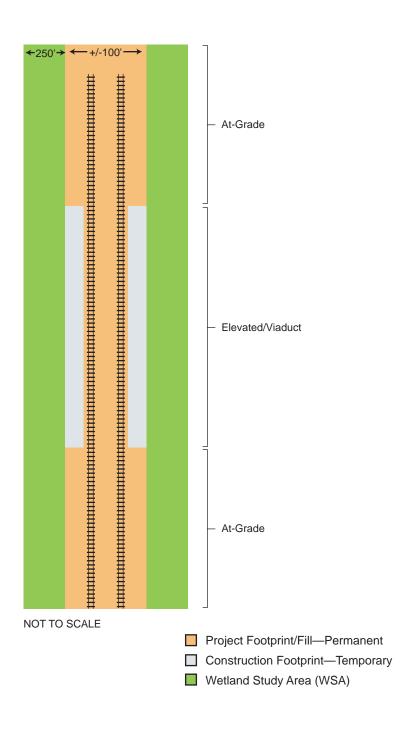
Wetland Delineation



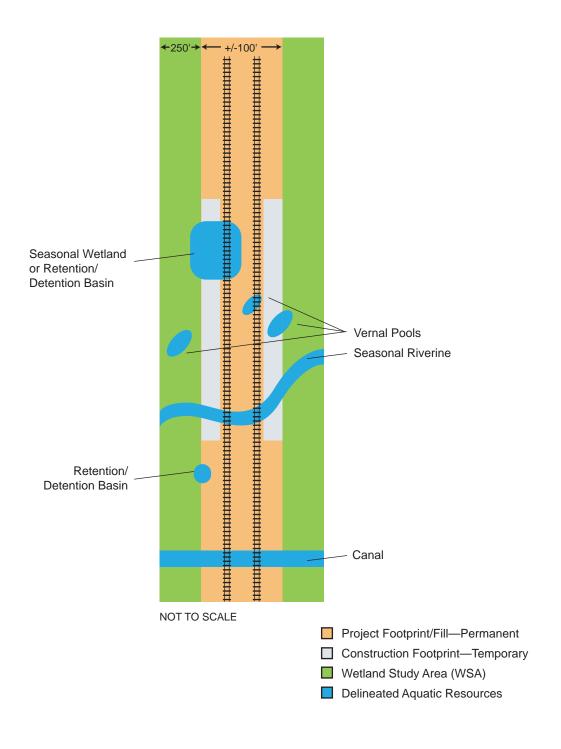
Construction and Project Impacts



At-grade vs. Elevated



Wetland Delineation



Construction and Project Impacts

