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		

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	Х	
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			
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		•	

	r Name: C. Rob					
	CRAM Site ID: FB HST					
Asse	Assessment Area Name: R150					
Date	e (mm/dd/yyy	y): 09/26/2011				
		Members for T	his AA			
J. Wł	nitfield, A. Langst	on, G. Peracca				
A	verage Bankfu	ıll Width: 9.5 me	eters			
	pproximate Le	ngth 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	oid the river/str	ream have flowi	ng water at the time	e of the assessment?	[] yes X no	
W	That is the appa	rent hydrologic	r flow regime of the	reach you are assess	sino?	
				ency with which the cha s ephemeral streams cond		
				mittent streams are dry f		
ye	ar, but conduct w			treams, as a function of		
and water source.						
	[]p	erennial	[] ephemeral	X intermittent		
P	hoto Identifica	tion Numbers a	and Description:			
	Photo ID	Description	Latitude	Longitude	Datum	
	No.	•	Latitude	Longitude	Datum	
1	1241	NE				
2	1242	NW				
3	1246	SE				
4	1244	SW				

AA Name: R150				Date: 09/26/2011	
Attributes and Metric	s	Sco	ores	Comments	
Buffer and Landscape Context					
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	Raw	9		
Attribu	Attribute Score		Final	Final Attribute Score =	
	ite beore	24	67	(Raw Score/36)100	67
Physical Structure					
Structural Patch			3		
Topographic C	omplexity	!	9		
Atteihu	ite Score	Raw	Final	Final Attribute Score =	
Attribu	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	E' 1 A '1 C	
Attribu	ite Score	Raw 19	Final 53	Final Attribute Score =	
				(Raw Score/36)100	53
Overall AA Score (Avera	age of Fina	ıl Attribu	te Scores		
`				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)	Х	
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		

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	X	
Removal of woody debris	Х	
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		
Vegetation management		

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			

	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	
		7 Gommed		nied .	
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?	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
	ar, but conduct w d water source.	rater for periods lo	onger than ephemeral s	treams, as a function of	watershed size
an					
	X pe	erennial	[] ephemeral	[] intermittent	
P	hoto Identifica	tion Numbers a	and Description:		
	Photo ID	Description	Latitude	Longitude	Datum
	No.	-	Lantude	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		Scores Commer		Comments	
Buffer and Landscape Context					
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		1		
$D + [C \times (A \times B)^{\frac{1}{2}}]^{\frac{1}{2}} = Attribu$	ite Score	Raw	Final	Final Attribute Score =	
B + [C x (H x B)] Realist	ite beore	14	59	(Rawcore/24)100	59
Hydrology					
	ter Source		6		
Hydroperiod or Channe			9		
Hydrologic Co	nnectivity		9		
Assuitanta Caana		Raw	Final	Final Attribute Score =	
Attribu	Attribute Score		67	(Raw Score/36)100	67
Physical Structure					
Structural Patch	Richness		3		
Topographic Complexity		1	12		
A 44	ite Score	Raw	Final	Final Attribute Score =	
Attribu	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			<u> 1</u>		
Horizontal Interspersion and			9		
Vertical Biotic	Structure		6		
Attribu	ite Score	Raw	Final	Final Attribute Score =	
		26	72	(Raw Score/36)100	72
Overall AA Score (Avera	age of Fina	ıl Attribu	ite Scores	3)	
(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	X	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	Х		
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.)	Х	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	cture Attribute.		

You	Your Name: C. Roberts					
CRA	AM Site ID: FB	HST				
Asse	essment Area N	Vame: R160				
Date	e (mm/dd/yyy	y): 09/29/2011				
Asso	essment Team	Members for T	his AA			
C. Ro	berts, A. Langsto	n, G. Peracca				
A	verage Bankfu	ll Width: 130 mo	eters			
	pproximate Les 00 meters	ngth of AA (10 t	times bankfull width	n, min 100 m, max 20	00 m):	
W	etland Sub-typ	e:				
		X Confined	[] Non-confi	ned		
A	A Category:					
	[] Restoration	n []N	Mitigation	[] Impacted	X Other	
D	Did the river/stream have flowing water at the time of the assessment? X yes [] 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. X perennial [] ephemeral [] intermittent					
Photo Identification Numbers and Description:						
	Photo ID No.	Description	Latitude	Longitude	Datum	
1	N/A	North				
2	N/A	South				
3	1291	East				
4	1292	West				
5	1293	General				
6	1294	General				

AA Name: R160					Date: 09/28/2011	
Attributes and Metric	Scores		es	Comments		
Buffer and Landscape Context						
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 · [Cx(11xb)] Ittilbu	ite ocore	18		75	(Rawcore/24)100	75
Hydrology						
	ter Source		6			
Hydroperiod or Channe	el Stability		6			
Hydrologic Co	nnectivity		6			
A ++mila.	ite Score	Raw		Final	Final Attribute Score =	
Attribu	ne score	18		50	(Raw Score/36)100	50
Physical Structure						
Structural Patch Richness			3			
Topographic C	omplexity		9			
A 44	ite Score	Raw		Final	Final Attribute Score =	
Aunot	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	6				6 co-dominant spp.	
Plant Community submetric C:						
Percent Invasion	12				0% non-native spp.	
Plant Commun						
(average of submetrics A-C)			9			
Horizontal Interspersion and Zonation			6			
Vertical Biotic	Structure		9			
Attribu	ite Score	Raw		Final	Final Attribute Score =	
		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)	Х	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.			

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	Present and likely	O	
(WITHIN 500 M OF AA)	to have negative	negative	
,	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			

	Your Name: A. Langston					
CRA	AM Site ID: FB	HST				
Asse	Assessment Area Name: R203					
Dat	e (mm/dd/yyy	y): 03/08/2012				
Asse	essment Team	Members for T	his AA			
4. 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 [] 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		
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 Metric	Sc	ores	Comments	
Buffer and Landscape Contex	t			
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	2			
Condition	3			
$D + [C \times (A \times B)^{\frac{1}{2}}]^{\frac{1}{2}} = Attribu$	ite Score	Raw 6	Fina	/O () 4 () 0
Hydrology		ь	25	(Raw score/24)100 25
	er Source		3	
			3	
Hydroperiod or Channe	-			Future above at actic 1 20
Hydrologic Co:	nnectivity	D	3	Entrenchment ratio =1.20
Attribu	te Score	Raw	Fina	
D1 10.		9	25	(Raw Score/36)100 25
Physical Structure	D' 1			
Structural Patch			3	1 patch type
Topographic Complexity			3	
Attribu	ite Score	Raw	Fina	
P:-4:- C4		6	25	(Raw Score/24)100 25
Biotic Structure Plant Community submetric A:				1 layer
Number of Plant Layers	6			1 layer
Plant Community submetric B:				4 co-dominant spp.
Number of Co-dominant species	3			Teo deminant spp.
Plant Community submetric C:				0% invasive spp.
Percent Invasion	12			22.2.16
Plant Commun	ity Metric			
(average of submetrics A-C)			7	
Horizontal Interspersion and Zonation			3	
Vertical Biotic Structure			3	
Attribu	ite Score	Raw	Fina	(D) (0 /0 / 100
		13	36.1	(Raw Score/36)100 36.1
Overall AA Score (Avera	age of Fina	ıl Attribı	ite Sco	res) 27.8
				27.0

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.			

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			
Located in heavy agricultural area with no buffer, but direct	impacts of physical st	ructure	
Stressors not evident.			

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	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.		_	

	r Name: G. Pera					
	M Site ID: FB					
	essment Area N					
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				
$\mathbf{A}_{]}$	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 []1	Mitigation	[] Impacted	X Other	
D	id the river/str	ream 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.					
	[] f	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		Comments	
Buffer and Landscape Contex					
Landscape Connectivity		1	12		
Buffer submetric A:					
Percent of AA with Buffer	3			No buffer. Road too narrow	
Buffer submetric B: Average	_				
Buffer Width	3			Avg=4 meters	
Buffer submetric C: Buffer	2				
Condition	3		T		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribut$	ite Score	Raw	Final		
	ite ocore	15	62.5	(Raw score/24)100	62.5
Hydrology					
Wat	er Source		6		
Hydroperiod or Channe	el Stability		3		
Hydrologic Cor	nnectivity		3	Entrenchment Ratio=1.20	
A 44 -: 11	Attribute Score		Final	Final Attribute Score =	
Attribu	te Score	12	33.3	(Raw Score/36)100	33.3
Physical Structure	Physical Structure		"		
Structural Patch	Structural Patch Richness		3	1 patch type	
Topographic Complexity			3		
A 44!1	1 0 1		Fina	Final Attribute Score =	
Attribu	ite Score	6	25	(Raw Score/24)100	25
Biotic Structure					
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 subm			5		
Horizontal Interspersion and Zonation			3		
Vertical Biotic	Structure		3		
Attribu	ite Score	Raw	Fina		
Tittibe		11	30.6	(Raw Score/36)100	30.6
Overall AA Score (Avera	age of Fina	ıl Attrib	ute Scor	es)	
	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)	Х	
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	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	<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			
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			

	Your Name: A. Langston						
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. Laı	ngston, G. Perac	ca, C. Roberts					
A	verage Bankfu	ıll Width: 12m					
$\mathbf{A}_{]}$	pproximate Le	ngth of AA (10	times bankfull widt	h, min 100 m, max 2	200 m): 120m		
W	etland Sub-typ	e:					
		V C = -1	[] NI	1			
		X Confined	[] Non-conf	ined			
A	A Category:						
	[] Restoration	n []]	Mitigation	X Impacted	[] Other		
D	Did the river/stream have flowing water at the time 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							
ית							
171	Photo ID	uon Numbers a	and Description:				
	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 Metric	Scores		es	Comments	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					
$D + [C \times (A \times B)^{1/2}]^{-1/2} = Attribut$	ite Score	Raw		Final	Final Attribute Score =	
		16.2		67.5	(Raw score/24)100	67.5
Hydrology						
	er Source		6			
Hydroperiod or Channe			9			
Hydrologic Cor	nnectivity		9		Entrenchment Ratio=1.98	
Attribu	Attribute Score			Final	Final Attribute Score =	
Attribu	ic score	24		66.7	(Raw Score/36)100	66.7
Physical Structure						
Structural Patch Richness			6		1 patch type	
Topographic Complexity			9			
Attribu	ite Score	Raw		Final	Final Attribute Score =	
Attribu	ite 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:	9					
Percent Invasion					0% non-native spp.	
Plant Commun			8			
(average of submetrics A-C)						
Horizontal Interspersion and Zonation Vertical Biotic Structure			9			
V erticai Biotic	structure	D.	9	г' 1	E'1 A'1 C =	
Attribu	ite Score	Raw		Final	Final Attribute Score =	70.0
		26		72.2	(Raw Score/36)100	72.2
Overall AA Score (Avera	age of Fina	ıl Attrib	ute	Scores	(57.2	
,	-				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	<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			
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		•	

You	Your Name: A. Langston				
CRAM Site ID: FB HST					
	essment Area N				
Dat	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: 6m			
A	pproximate Le	ength 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	X Impacted	[] Other
D	id the river/str	eam 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	hoto 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 Context						
Landscape Connectivity		1	12			
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						
	er Source		6		Isolated from surrounding	
Hydroperiod or Channe			3		Fed by pumped groundw	ater.
Hydrologic Cor	nnectivity		6		Entrenchment Ratio=1.39	
Attribu	Attribute Score			Final	Final Attribute Score =	
Attiibu	ie score	15		41.7	(Raw Score/36)100	41.7
Physical Structure						
Structural Patch	Richness		3		1 patch type	
Topographic C	Topographic Complexity		6			
A ++++i1	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 subm			7			
Horizontal Interspersion and			3			
Vertical Biotic	Structure		3	D. .	E' 1 A '1 0	
Attribute Score		Raw		Final	Final Attribute Score =	
	13		36.1	(Raw Score/36)100	36.1	
Overall AA Score (Avera	ige 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 input	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	Present and likely	Significant negative	
	to have negative		
(WITHIN 500 M OF AA)	effect on AA	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	

Agriculture occupies 100% of surrounding land uses. Even though the feature was created for agriculture it is significantly negatively affected by the Intensive row-crop agriculture, specifically.

	Your Name: A. Langston					
	CRAM Site ID: FB HST					
	Assessment Area Name: R211					
Date	e (mm/dd/yyy	y): 03/05/2012				
		Members for T	his AA			
A. La	ngston, G. Perac	ca, C. Roberts				
A	verage Bankfu	ıll Width: 8 mete	ers			
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	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.					
	[] p	erennial	[] ephemeral	X intermittent		
P	hoto Identifica	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		Sc	or	es	Comments	
Buffer and Landscape Context						
Landscape Conne	ctivity		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	_				
$D + [C \times (A \times B)^{1/2}]^{-1/2} = Attribut$	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 =	
				41.7	(Raw Score/36)100	41.7
Physical Structure						
Structural Patch Richness			6		4 patch types	
Topographic Complexity			9			
Atteibu	ite Score	Raw		Final	Final Attribute Score =	
Attribu	ne score	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:						
Number of Co-dominant species	3				1 dominant sp.	
Plant Community submetric C:	12					
Percent Invasion	12				0% invasion	
Plant Commun			7			
(average of subm						
Horizontal Interspersion and Zonation Vertical Biotic Structure			3			
V erticai Biotic	structure	D.	3	T' 1	E' - 1 A 1	
Attribu	ite Score	Raw 13		Final	Final Attribute Score =	26.4
		13		36.1	(Raw Score/36)100	36.1
Overall AA Score (Avera	age of Fina	ıl Attrib	ute	Scores	45.7	
<u> </u>					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		

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

gnificant
negative
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	essment Area I	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 Bankfu	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	pe:			
		X Confined	[] Non-conf	ined	
A	A Category:				
	[] Restoration	n []:	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.					
P	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 Conne	ctivity	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	
$D + [C \times (A \times B)^{\frac{1}{2}}]^{\frac{1}{2}} = Attribu$	ite Score	Raw		Final	Final Attribute Score =	
	ite ocoic	16.2		67.5	(Rawcore/24)100	67.5
Hydrology						
	er Source		6		20% of AA adjacent to active ag	
Hydroperiod or Channe	el Stability		3			
Hydrologic Co	nnectivity		6		Entrenchment Ratio=1.4	
Attaila	ite Score	Raw		Final	Final Attribute Score =	
Attribu	ne Score	15		41.7	(Raw Score/36)100	41.7
Physical Structure						
Structural Patch	Richness		3			
Topographic Complexity			3			
A 44	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				1 co-dominant sp.	
Plant Community submetric C:	4.2					
Percent Invasion	12				0% invasion	
Plant Community Metric			7			
(average of submetrics A-C)			7			
Horizontal Interspersion and Zonation			3			
Vertical Biotic Structure			3	T' 1	E' 1 A '1 O	
Attribute Score		Raw 13		Final	Final Attribute Score =	
				36.1	(Raw Score/36)100	36.1
Overall AA Score (Avera	age of Fina	ıl Attribu	ute	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	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)		
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	<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		
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	Your Name: A. Langston					
CRA	CRAM Site ID: FB HST					
Asse	Assessment Area Name: R213					
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: 6 m				
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	n []]	Mitigation	X Impacted	[] Other	
D	id the river/str	ream 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.					
	[] p	erennial	[] ephemeral	X intermittent		
P	hoto Identifica	tion Numbers a	and Description:			
	Photo ID No.	Description (facing)	Latitude	Longitude	Datum	
1	1665	NE				
2	1666	NW				
3	1667	SW				
4	1668	SE				

Scoring Sheet: Riverine Wetlands

AA Name: R213					Date: 03/05/2012	
Attributes and Metric	Scores 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	
Attribute Score		Raw		Final	Final Attribute Score =	
		15		41.7	(Raw Score/36)100	41.7
Physical Structure						
Structural Patch Richness			3			
Topographic Complexity			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 Zonation			3			
Vertical Biotic	Structure		3		E' 1 A '1 C	
Attribu	ite Score	Raw		Final	Final Attribute Score =	
		13		36.1	(Raw Score/36)100	36.1
Overall AA Score (Avera	age of Fina	al 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	•	

. •	
ve negative	negative
ect on AA	effect on AA
Х	
	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	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	Your Name: J.n Whitfield					
CRA	CRAM Site ID: FB HST					
Asse	essment Area N	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	ength of AA (10	times bankfull widt	h, min 100 m, max	200 m): 200 m	
W	etland Sub-typ	oe:				
			w. N. I	1		
		[] Confined	X Non-confin	ed		
A	A Category:					
	[] Restoration	n []]	Mitigation	[] Impacted	X Other	
D	id the river/str	ream 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 asse	ssing?	
			am describes the freque			
			er all year long, whereas ecipitation events. Inter			
			onger than ephemeral s			
an	d water source.	-	-			
	[]p	erennial	[] ephemeral	X intermittent		
P	hoto Identifica	tion Numbers	and Description:			
1	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 Context					
Landscape Connectivity			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	_				
Condition	6	-		T: 1 4 '1 0	
$D + [C \times (A \times B)^{1/2}]^{-1/2} = Attribut$	ite Score	Raw	Final	Final Attribute Score =	
		18.6	77.5	(Raw score/24)100	77.5
Hydrology					
	er Source		6		
Hydroperiod or Channe			9		
Hydrologic Cor	nnectivity	1	12	Entrenchment Ratio= 3.82	2
Attribu	Attribute Score		Final	Final Attribute Score =	
Attribute Score		18	75	(Raw Score/36)100	75
Physical Structure					
Structural Patch Richness			6	6 patch types	
Topographic Complexity		1	12		
Atteibu	ite Score	Raw	Final	Final Attribute Score =	
Tittibu	ite beore	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:	9				
Percent Invasion				25% invasion	
Plant Commun	•		8		
(average of subm			9	1/	n
Horizontal Interspersion and Vertical Biotic			6	½ AA = 12; ½ AA =6. Avg=	3
v erucai Biotic	Structure		_	Final Attribute Score =	
Attribu	ite Score	Raw	Final		62.0
		23	63.9	(Raw Score/36)100	63.9
Overall AA Score (Avera	age of Fina	ıl Attribu	ite Scores	72.0	
<u> </u>				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: A	PN: 331-080-001			
Proje	ect Site ID: F	resno to Bakersfield	HST		
Asse	ssment Area	Name: V62A			
Proje	ect Name: Fr	esno to Bakersfield I	HST	Date (m/d/y)	9 29 11
Asse	ssment Tear	n Members for Th	nis AA		
G. Pe	racca				
C. Ro	berts				
	and Categor X Natural	y: □ Constructed	□ Restoration	n (Rehabilitation OR Er	nhancement)
If Cr		tored, does the ac	-	on of the wetland	
Wha		bes the hydrologic led/inundated		vetland at the time of a bil, but no surface water	ssessment? X dry
Wha	t is the appar	rent hydrologic re	gime of the w	etland?	
	□ long-d		ium-duration		
	•	□ yes	X no	oodplain of a nearby str	eam?
Pł	oto Identific	cation Numbers a	nd Descriptio	n:	
	Photo ID No.	Description	Latitude	Longitude	Datum
1	1314	North			
2	1312	South			
3		East			
4	1311	West			
5					
6					
*Apri CRAN	•	ed using new Individ on old VP module V 72.6		(V. 6.0).	

AA Name: V62A					(m/d/y)	09/29/2011	
Attributes and Metrics				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					
	A + ED	(D (\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Final Attr	ribute Score =	
Initial Attribute Score =	Α+[D	х (вх С	·)]	18.7	(Initial Sc	ore/24) x 100	77.8
Hydrology							
	Wate	er Source	Α	12			
Hydroperiod				12			
Hydrolo	nectivity	В	9				
Initial Attributa Sagra					Final Attr	ribute Score =	
Initial Attribute Score				33	(Initial Sc	ore/36) x 100	91.7
Physical Structure			T	1			
Structural Patch Richness			С	6	3 patch typ	oes	
Topogra	phic Co	mplexity	С	6			
Initial	Attribu	te Score				ibute Score =	
				12	(Initial Sc	ore/24) x 100	50
Biotic Structure				1			
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		12			00/	* ***********	
B: Percent Non-native	Α	12	0% non-native spp.				
Community Composition submetric C: Endemic Species Richness	D	3			0 andamic	cnn	
Plant Community Con				0 endemic spp.			
(numeric average	-			8			
, , ,		,			Final Attr	ribute Score =	70.9
Initial	Auridu	te Score		17	(Initial Sc	ore/24) x 100	70.8
Overall AA Score (Av	verage (of Final	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	ırbed.	

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	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 a	long 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	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	ı	•
Trans. Corridor = RR and Hwy. They have had effect on landscap	oe connectiv	ity for site.

X Natural
Assessment Team Members for This AA G. Peracca C. Roberts Wetland Category: X Natural
Assessment Team Members for This AA G. Peracca C. Roberts Wetland Category: X Natural
G. Peracca C. Roberts Wetland Category: X Natural
Wetland Category: X Natural
Wetland Category: X Natural
If Created or Restored, does the action encompass: continuous entire wetland continuous portion of the wetland What best describes the hydrologic state of the wetland at the time of assessment? continuous ponded/inundated continuous saturated soil, but no surface water x dry What is the apparent hydrologic regime of the wetland? continuous long-duration connect with the floodplain of a nearby stream? continuous yes x no Photo Identification Numbers and Description: Photo ID Description Latitude Longitude Datum
X Natural
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
□ 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
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
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
Photo Identification Numbers and Description: Photo ID Description Latitude Longitude Datum
Photo ID Description Latitude Longitude Datum
1101
1 1324 North
2 1322 South
3 1323 East
4 1321 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 = 70.5 New CRAM score = 76.4

AA Name: V65	(m/d/y)	09/29/2011					
Attributes and Metrics Alpha. Numeric						Comments	
Buffer and Landscape Conte							
(A) Aquatic A	Α	12	Avg=24.5%	Ó			
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	Α	12			Avg=211m		
(D): Buffer Condition	В	9					
	A	, /D, /C	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Final Attr	ribute Score =	
Initial Attribute Score =	A + [D	ух (ВхС	.)`] `	22.4	(Initial Sc	ore/24) x 100	93.3
Hydrology				•			
	Wate	er Source	Α	12			
	Hyd	roperiod	Α	12			
Hydrolo	gi <mark>c</mark> Con	nectivity	В	9			
Initial Attribute Score					Final Attr	ribute Score =	
Illitial	ic score		33	(Initial Sc	ore/36) x 100	91.7	
Physical Structure				_			
Structural Patch Richness			С	6	3 patch typ	oes	
Topographic Complexity			С	6		,	
Initial	Attribu	te Score				ibute Score =	
				12	(Initial Sc	ore/24) x 100	50
Biotic Structure				1			
Horizontal Interspersion and Z	Conation		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	^	12			00/ nam :==	tivo con	
	Α	12		0% non-native s			
Community Composition submetric C: Endemic Species Richness	D	3			0 endemic	snn	
Plant Community Composition Metric					o chaeinic	<u> </u>	
(numeric average (-			8			
Initial Attribute Score				17		ribute Score = ore/24) x 100	70.8
Overall AA Score (Av	verage (of Final			`	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 (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		

PIOTIC STRIICTIIRE ATTRIBITE		Present and Likely
BIOTIC STRUCTURE ATTRIBUTE	Present	to Have Significant
(WITHIN 50 M OF AA)	riesent	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	•	

CRA	M Site ID:	APN: 333-130-004					
Proje	ct Site ID:	Fresno to Bakersfield	HST				
Asses	ssment Are	a Name: V70					
Proje	ct Name: F	resno to Bakersfield	HST	Date (m/d/y)	9	21	11
Asses	ssment Tea	am Members for Tl	nis AA				
C. Juli	an		A. Langston				
J. Lov	e		C. Roberts				
(Z. Sin	nmons-USA(CE)					
Wetla	and Catego	ory:					
	X Natural	□ Constructed	□ Restoration	(Rehabilitation OR	t Enhanc	ement)	
If Cr	eated or Re	estored, does the ac	tion encompa	ss.			
11 01	04104 01 110	□ entire wetland	-	on of the wetland			
What	t best desci	ribes the hydrologic	c state of the w	etland at the time o	of assess	ment?	
	□ por	nded/inundated	□ saturated so	il, but no surface wat	er x	(dry	
What	t is the app	arent hydrologic re	gime of the w	etland?			
	_ 1	1 1	. 1	v 1 . 1 .:			
	⊔ long-	duration □ med	ium-duration	X short-duration			
Does	the vernal			odplain of a nearby	stream?	1	
		□ yes	X no				
Ph	oto Identif	ication Numbers a	nd Description	n•			
111	Photo ID		Latitude	Longitude		Datum	
	No.	Description	Latitude	Longitude		Datam	
1	1201	North					
2	1203	South					
3	1202	East					
4	1204	West					
5							
6							
Com	ments:	ı		<u> </u>			
		ted using new Individ	ual VP Module (V. 6.0).			
	•	d on old VP module V	-	- 1			
	CRAM score						
, , ,							

AA Name: V70	A Name: V70						
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			
(D): Buffer Condition	В	9					
	, /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			•		1		
	Wate	er Source	Α	12			
	roperiod	В	9				
Hydrolo	nectivity	С	6				
Initial	·		Final Attı	ribute Score =			
Illiuar .	Initial Attribute Score				(Initial Sc	ore/36) x 100	75
Physical Structure							
Structura	Patch !	Richness	D	3	2 patch types		
Topogra	phic Co	mplexity	С	6			
Initial	Attribu	te Score				ribute Score =	
IIIIII				9	(Initial Sc	ore/24) x 100	37.5
Biotic Structure				1			
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	_				750/		
B: Percent Non-native	D	3			75% non-r	iative spp.	
Community Composition submetric	D	2			O andomia	con	
C: Endemic Species Richness Plant Community Con	D positio	n Metric			0 endemic	ohh.	
(numeric average	_			5			
, , , , , , , , , , , , , , , , , , , ,		•			Final Att	ribute Score =	
Initial .	Attribu	te Score		14		ore/24) x 100	58.3
Overall AA Score (Av	erage (of Final	Attribut	e Scores)		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 (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		

BIOTIC STRUCTURE ATTRIBUTE (WITHIN 50 M OF AA)	Present	Present and Likely to Have Significant negative effect on
Mowing, grazing, excessive herbivory (within AA)		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		

CRA	٩M	Site ID: AP	N: 333-130-004					
Proj	ect	Site ID: Fre	sno to Bakersfield	HST				
Asse	ess	ment Area N	Name: V72					
Proj	ect	Name: Free	sno to Bakersfield I	HST	Date (m/d/y)	9	21	11
Asse	ess	ment Team	Members for Th	nis AA				
C. Ju	liar	1		A. Langston				
J. Lo	ve			C. Roberts				
(Z. Si	imn	nons-USACE)						
Wet	lan	d Category:						
		· .	□ Constructed	□ Restoration	(Rehabilitation OR	Enhance	ement)	
If C	rea	ted or Resta	ored, does the ac	tion encompa	ss.			
	100		entire wetland	-	on of the wetland			
Wha	at b		• •		etland at the time of			
		□ ponde	d/inundated	□ saturated so	il, but no surface wat	er x	(dry	
Wha	at is	s the appare	nt hydrologic re	gime of the w	etland?			
				5				
		□ long-du	ration 🗆 med	ium-duration	X short-duration			
Doe	s t	he vernal po	ol system conne	ct with the flo	odplain of a nearby	stream?	1	
		1	•	X no	1			
P			tion Numbers a	1				
		Photo ID No.	Description	Latitude	Longitude		Datum	
1	_	1197	North					
2	2	1199	South					
3	3	1198	East					
4	1 :	1200	West					
5	5							
6	5							
Con	nm	ents:	•		<u>'</u>	I		
*Apr	ril 2	012: updated	using new Individ	ual VP Module (V. 6.0).			
		•	n old VP module V.		•			
		AM score = 6						

AA Name: V72	AA Name: V72						
Attributes and Me	trics		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	1	
(D): Buffer Condition	В	9					
	/D C	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		Final Attr	ribute Score =		
Initial Attribute Score –	Initial Attribute Score = $A + [Dx(Bx)]$				(Initial Sc	ore/24) x 100	55.8
Hydrology							
	Wate	er Source	Α	12			
	roperiod	В	9				
Hydrolo	В	9					
Initial .				ribute Score =			
Intiar	ic score		30	(Initial Sc	ore/36) x 100	83.3	
Physical Structure				_			
Structura	l Patch I	Richness	D	3	2 patch typ	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	Conation		Α	12			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	Α	12			6 co-domii	nant spp.	
Community composition submetric	6	2			F00/		
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					o endenne	շ իի.	
(numeric average	-			6			
, C	Initial Attribute Score					ribute Score =	75
				18	,	ore/24) x 100	
Overall AA Score (Av	rerage (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	Present	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	Х	Х
Comments		
Trash scattered in wetland and dense dump across levee.		

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			

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.		

CRA	M Site ID: A	NPN: 333-130-006							
Proje	ct Site ID: F	resno to Bakersfield	HST						
Asses	ssment Area	Name: V74							
Proje	ct Name: Fr	esno to Bakersfield I	HST	Date (m/d/y)	9 20 11				
Asses	ssment Tear	m Members for Th	nis AA						
C. Juli			A. Langston						
J. Lov	. Love C. Roberts								
Wetla	and Categor	v:							
	X Natural	□ Constructed	□ Restoration	n (Rehabilitation OR Er	nhancement)				
			_						
If Cro		stored, does the ac	-						
		entire wetland	□ portio	on of the wetland					
XV71	1 . 1 . 1			.1 11					
What				vetland at the time of a					
	⊔ ропс	ded/inundated	□ Saturated So	il, but no surface water	X dry				
W/hat	is the anna	rent hydrologic re	gime of the w	etland?					
w mai	. 18 инс арра	rent nydrologie re	gille of the w	cuand:					
	□ long-d	uration medi	ium-duration	X short-duration					
	O								
D	41 1 .	1	-4 - 341- 41 O-	- 4-1-tC1	-				
Does	the vernal p		Ct with the Ho	odplain of a nearby str	eam?				
		□ yes	X 110						
Ph	oto Identific	cation Numbers a	nd Description	n:					
	Photo ID	Description	Latitude	Longitude	Datum				
	No.								
1	1179	North							
2	1181	South							
3	1180	East							
4	1182	West							
5									
6									
	ments:								
-	•	ed using new Individ	· · · · · · · · · · · · · · · · · · ·	V. 6.0).					
		on old VP module V.	5.0.3 = 69.3						
New (CRAM score =	/2.3							

AA Name: V74		(m/d/y)	09/20/2011				
Attributes and Metrics Alpha. Nun						Comments	
Buffer and Landscape Conte							
(A) Aquatic A	D	3	Avg=1%				
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	Α	12			Avg=250m	1	
(D): Buffer Condition	В	9					
	A	, /D, /C	\ \\\^1/2 \ \\\^1/2		Final Attı	ribute Score =	
Initial Attribute Score =	A + [D	ух (вх С)]	13.4	(Initial Sc	ore/24) x 100	55.8
Hydrology						<u>.</u>	
Water Source			Α	12			
Hydroperiod			В	9			
Hydrolo	gi <mark>c</mark> Con	nectivity	В	9			
Initial Attribute Score			30			ribute Score = ore/36) x 100	83.3
Physical Structure				30	(IIIItiai SC	01c/ 30) X 100	63.3
Structura	l Patch	Richness	С	6	3 patch typ	nes	
Topogra			A	12	o paren cy		
					Final Attı	ribute Score =	
Initial	Attribu	te Score		18		ore/24) x 100	75
Biotic Structure						<u>.</u>	
Horizontal Interspersion and Z	Conation	n	Α	12			
Community composition submetric	Alpha.	Numeric					
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	,				0		
C: Endemic Species Richness	<u>D</u>	3			0 endemic	spp.	
Plant Community Con (numeric average	1			6			
(numera average	ij suvinci	11113 A-C)			Final Att	ribute Score =	
Initial	Attribu	te Score		18		ore/24) x 100	75
Overall AA Score (Av	erage (of Final	Attribut	e Scores)		72.3	

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

DINGLOAL CUDICULIDE AUTUDIUTE		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)	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.		

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: 333-130-006					
Proje	ect Site ID:	Fresno to Bakersfield	HST				
Asse	ssment Are	ea Name: V75					
Proje	ect Name:	Fresno to Bakersfield I	HST	Date (m/d/y)	9	20	11
Asse	ssment Te	am Members for Th	nis AA				
C. Jul	ian		A. Langston				
J. Lov	e		C. Roberts				
Wetl	and Catego	ory:					
	X Natural	□ Constructed	□ Restoration	(Rehabilitation OR	Enhance	ement)	
If C.	enated or D	patarad does the ac	ition oncompa	no•			
II CI	calcu of K	estored, does the ac	-	n of the wetland			
		in chare wettand	□ рогис	ii of the wettaild			
W/ha	t boot door	wihaa tha baadwalaad	a state of the w	atland at the time of			
WIIa		ribes the hydrologio nded/inundated		l, but no surface wat		dry	
	□ po.	naca/ manaaca	□ saturated sor	i, but no surface wat	CI X	dry	
Wha	t is the app	arent hydrologic re	gime of the we	etland?			
			8				
	□ long-	-duration □ med	ium-duration	X short-duration			
Does	s the vernal	pool system conne	ect with the floo	odplain of a nearby	stream?		
2000	, the verner	-	X no	ouplain of a nearsy	oti cui i i		
		,					
Ph	1	fication Numbers a					
	Photo ID No.	Description	Latitude	Longitude	-	Datum	
1	1183	North					
2	1185	South					
3	1184	East					
4	1186	West					
5							
6							
	ments:						
•	•	ited using new Individ		/. 6.0).			
	/I score base CRAM score	d on old VP module V	. 5.0.3 = 66.1				
INGM	CIVAINI SCOILE	- 00.0					

AA Name: V75		(m/d/y)	09/20/2011				
Attributes and Metrics Alpha.				Numeric		Comments	
Buffer and Landscape Conte							
(A) Aquatic A	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	1	
(D): Buffer Condition	В	9					
	A	<i>T</i> D <i>C</i>	\ \\\ \dagger{1}{2} = \frac{1}{2}		Final Attr	ribute Score =	
Initial Attribute Score =	A + [D	x (B x C)/*] /*	13.4		ore/24) x 100	55.8
Hydrology					`	, ,	
	Wate	er Source	Α	12			
	Hydroperiod			9			
Hydrolo	gic Con	nectivity	В	9			
Initial	A +++ib	te Score			Final Attr	ribute Score =	
Tilltiai .	Attribu	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 =	
Intial				15	(Initial Sc	ore/24) x 100	62.5
Biotic Structure				1			
Horizontal Interspersion and Z	Conation	1	В	9			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	С	6			3 co-domii	nant spp.	
Community composition submetric					222/		
B: Percent Non-native	В	9			33% non-n	iative spp.	
Community Composition submetric C: Endemic Species Richness	D	2			0 andomic	snn	
Plant Community Con	D	n Metric			0 endemic	<u> </u>	
(numeric average	1			6			
, C		,			Final Attr	ribute Score =	
Initial	Attribu	te Score		15		ore/24) x 100	62.5
Overall AA Score (Av	erage (of Final	Attribut	e Scores)		66.0	

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

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	•			

		Present and Likely		
BIOTIC STRUCTURE ATTRIBUTE	Present	to Have Significant		
(WITHIN 50 M OF AA)	Tiesent	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				
Lack of treatment of invasive plants adjacent to AA or buffer				

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				
Asses	ssment Area	a Name: V76A					
Project Name: Fresno to Bakersfield HST Date $(m/d/y)$ 9 19 11							11
Asses	ssment Tea	m Members for Th	nis AA				
C. Juli	an		A. Langston				
J. Love	J. Love C. Roberts						
J. Whi	itfield						
Wetla	and Categor	ry:					
	X Natural	□ Constructed	□ Restoration	(Rehabilitation OR	Enhanc	ement)	
If Cre	eated or Re	stored, does the ac	tion encompas	ss:			
		□ entire wetland	-	n of the wetland			
VV 71 .	1	9		-414			
What		ded/inundated		etland at the time on the lime of the surface wat		ment: K dry	
	□ роп	ded/ mundated	□ saturated sor	i, but no surface wat		Cury	
What	is the anna	arent hydrologic re	oime of the we	tland?			
** 1160	. is the appe	wient ny droiogie re	giiie or the we				
	□ long-c	duration X medi	um-duration	□ short-duration			
Door	the wornel	nool oretom conno	at with the flee	odplain of a nearby	atroama		
Ducs	the vernar	- •	X no	diplani of a nearby	Sticaiii:		
		= yes	7 110				
Ph	oto Identifi	cation Numbers a	nd Description	:			
	Photo ID No.	Description	Latitude	Longitude		Datum	
1	1171	North					
2	1173	South					
3	1172	East					
4	1174	West					
5							
6							
Com	ments:	1		ı			1
*April	2012: updat	ed using new Individ	ual VP Module (\	/. 6.0).			
	•	l on old VP module V.	•	•			
New 0	CRAM score =	= 62.1					

AA Name: V76A						(m/d/y) 09/19/2011		
Attributes and Metrics Alpha.						Comments		
Buffer and Landscape Conte								
(A) Aquatic A	В	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	<u> </u>		
(D): Buffer Condition	С	6						
Initial Attribute Come -	A + ED	(D C	\1/2 7 1/2		Final Attr	ribute Score =		
Initial Attribute Score = .	A + [D	х (вх С)]	14.6	(Initial Sc	ore/24) x 100	60.9	
Hydrology					_			
	Wate	er Source	Α	12				
	Hyd	roperiod	В	9				
Hydrolo	gic Con	nectivity	В	9				
Initial	A ttribu	te Score			Final Att	ribute Score =		
Illitial	Attiibu	ic score	30		(Initial Sc	ore/36) x 100	83.3	
Physical Structure								
Structura	Patch !	Richness	С	6	3 patch types			
Topogra	Topographic Complexity							
Initial	Attribu	te Score				ribute Score =		
IIItiai	- Tunbu	ic score		12	(Initial Sc	ore/24) x 100	50	
Biotic Structure				T				
Horizontal Interspersion and Z	Conation	ı	В	9				
Community composition submetric	Alpha.	Numeric						
A: Number of Co-dominants	С	6			2 co-domi	nant spp.		
Community composition submetric	-				4.000′			
B: Percent Non-native	D	3			100% non-	-native spp.		
Community Composition submetric	D	3			O andamia	con		
C: Endemic Species Richness Plant Community Con	D	J			0 endemic	shh.		
(numeric average	_			4				
Initial Attribute Score				13		ribute Score = core/24) x 100	54.2	
Overall AA Score (Average of Final Attribute Score				e Scores)		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)		7111
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		

DIOTIC CTDIICTIDE ATTRIBUTE		Present and Likely
BIOTIC STRUCTURE ATTRIBUTE	Present	to Have Significant
(WITHIN 50 M OF AA)	1 iesciit	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	Х	
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	1	

Basic Information: Individual Vernal Pool

CRA	M Site ID:	APN: 333-120-001			
Proje	ct Site ID:	Fresno to Bakersfield	HST		
Asses	ssment Are	a Name: V76D			
Proje	ct Name: F	resno to Bakersfield I	HST	Date (m/d/y)	9 19 11
Asses	ssment Tea	am Members for Th	nis AA		
C. Juli	an		A. Langston		
J. Lov	e		C. Roberts		
J. Wh	itfield				
Wetla	and Catego	orv:			
	X Natural	_	□ Restoration	n (Rehabilitation OR Er	nhancement)
If Cr	eated or Re	estored, does the ac	tion encompa	88.	
11 01		□ entire wetland	_	on of the wetland	
					_
What		•		vetland at the time of a	
	□ por	nded/inundated	□ saturated so	il, but no surface water	X dry
What	t is the app	arent hydrologic re	gime of the w	etland?	
*** ====	, 10 tile upp	on one my on one great	8		
	□ long-	duration 🗆 med	ium-duration	X short-duration	
Does	the vernal	pool system conne	ct with the flo	odplain of a nearby str	eam?
		- •	X no		
Ph		ication Numbers a			
	Photo ID No.	Description	Latitude	Longitude	Datum
1	1175	North			
2	1177	South			
3	1176	East			
4	1178	West			
5					
6					
Com	ments:	•		•	· '
*April	2012: upda	ted using new Individ	ual VP Module (V. 6.0).	
CRAIV	1 score based	d on old VP module V.	5.0.3 = 50.5		
New (CRAM score	= 59.8			

Scoring Sheet: Individual Vernal Pools

AA Name: V76D					(m/d/y) 09/19/2011		
Attributes and Metrics Alpha				Numeric		Comments	
Buffer and Landscape Conte							
(A) Aquatic A	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	1	
(D): Buffer Condition	В	9					
Initial Attribute Score =	A + [D	v /B v /	\\\\^1/2\] \\\\^1/2		Final Attr	ribute Score =	
Illitial Attribute Score –	Δι[D	ух (БхС	<i>()</i>]	19.4	(Initial Sc	ore/24) x 100	80.8
Hydrology							
	Wate	er Source	Α	12			
		roperiod	В	9			
Hydrolo	gic Con	nectivity	В	9			
Initial	Attribu	te Score	,	Final Attribute Scor 30 (Initial Score/36) x			02.2
Dissoired Comments				30	(IIIIIIai SC	ore/30) x 100	83.3
Physical Structure Structura	1 D-4-1-	D : -1	-		2 natah tur	200	
			С	6	3 patch typ	5 paten types	
Topogra	pnic Co	mplexity	C	6	Einal Atte	ribute Score =	
Initial	Attribu	te Score		12		ore/24) x 100	50
Biotic Structure				- -	(======================================	, - :,	30
Horizontal Interspersion and Z	Zonation	1	D	3			
Community composition submetric	Alpha.	Numeric					
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							
C: Endemic Species Richness	D	3			0 endemic	spp.	
Plant Community Con	-						
(numeric average	of submei	trics A-C)		3	T-' 1 A	7	
Initial	Attribu	te Score		6		ribute Score = ore/24) x 100	25
Overall AA Score (Av	Overall AA Score (Average of Final			e Scores)		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)	Tieschi	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
	Present	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.,		
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	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

CKA	M Site ID:	APN: 333-020-005			
Proj	ect Site ID:	Fresno to Bakersfield	HST		
Asse	ssment Are	ea Name: V104			
Proj	ect Name:	Fresno to Bakersfield	HST	Date (m/d/y)	9 27 11
Asse	essment Te	am Members for Tl	nis AA		
A. La	ngston				
G. Pe	racca				
C. Ro	berts				
Wetl	and Catego X Natural	•	□ Restoration	n (Rehabilitation OR Er	nhancement)
If Cı	reated or Ro	estored, does the ac	_	on of the wetland	
Wha		ribes the hydrologic nded/inundated		vetland at the time of a	ssessment? X dry
	□ long-		ium-duration	X short-duration	
		□ yes	X no	odplain of a nearby str	eam?
		fication Numbers a			Dotom
	Photo ID No.	Description	Latitude	Longitude	Datum
1	1278	North	1		
2		South	1		
3	-	East			
4	1181	West			
5					
6					
*Apr CRAN	•	ated using new Individ d 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 Me	Alpha.	Numeric		Comments			
Buffer and Landscape Conte							
(A) Aquatic A	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): Buffer Condition	В	9					
	A	/D C	N ½ 1 ½		Final Attı	ribute Score =	
Initial Attribute Score =	A + [D	х (ВхС	·)`]`	22.4	(Initial Sc	ore/24) x 100	93.3
Hydrology				•			
,	Wate	r Source	Α	12			
	Hyd	roperiod	Α	12			
Hydrolo	gic Con	nectivity	Α	12			
Initial	Attribu	te Score			Final Att	ribute Score =	
Intiai	7Xtt11Du		,	36	(Initial Sc	ore/36) x 100	100
Physical Structure			T	1			
Structura	l Patch I	Richness	D	3	2 patch typ	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	Zonation		В	9			
Community composition submetric	Alpha.	Numeric					
A: Number of Co-dominants	С	6			3 co-domii	nant spp.	
Community composition submetric		12			00/	4:	
B: Percent Non-native	Α	12			0% non-na	itive spp.	
Community Composition submetric C: Endemic Species Richness	D	3			0 endemic	snn	
Plant Community Con					o endenne	շ իր.	
(numeric average				7			
Initial		16		ribute Score = 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

		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		<u>. </u>

		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	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	•	
Within 500 m of orchard and HWY 43 and BNSF RR.		

Basic Information: Individual Vernal Pool

CRAM Site ID: APN: 3	33-030-006				
Project Site ID: Fresno	to Bakersfield	HST			
Assessment Area Nan	ne: V114				
Project Name: Fresno t	to Bakersfield H	ST 1	Date (m/d/y)	9	22 11
Assessment Team Me	mbers for Th	is AA			
J. Love		C. Julian			
A. Langston		C. Roberts			
Wetland Category: X Natural □ Co	onstructed	□ Restoration	(Rehabilitation OR	. Enhancemo	ent)
			`		,
If Created or Restored	l, does the act e wetland	_	s: a of the wetland		
What best describes th □ ponded/in	•		tland at the time of but no surface water		
What is the apparent h			X short-duration		
Does the vernal pool s	ystem connec		dplain of a nearby	stream?	
Photo Identification	n Numbers an	d Description:			
Photo ID No.	Description	Latitude	Longitude	Da	ıtum
	North				
	South				
3 1121 E	ast				
4 1123 \	Nest				
5					
6					
Comments: *April 2012: updated usin CRAM score based on old New CRAM score = 79.9	-		. 6.0).	·	

Scoring Sheet: Individual Vernal Pools

AA Name: V114					(m/d/y)	09/22/2011	
Attributes and Metrics Alpha.						Comments	
Buffer and Landscape Conte							
(A) Aquatic A	rea Con	nectivity	Α	12	Avg=28.8%	Avg=28.8%	
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	В	9			Avg=143.1	m	
(D): Buffer Condition	В	9					
	l		v 1/2 = 1/2		Final Attı	ribute Score =	
Initial Attribute Score =	A + [D	х (ВхС	2)/1 /1	21.7		ore/24) x 100	90.3
Hydrology				1		,	
7 67	Wate	r Source	Α	12			
	Hyd	roperiod	В	9			
Hydrolo	gic Con	nectivity	В	9			
Initial Attribute Score				30		ribute Score = ore/36) x 100	83.3
Physical Structure				30	(IIIIIIII OC	010, 00) 11 100	05.5
Structura	l Patch I	Richness	D	3	2 patch typ	oes	
Topogra	phic Co	mplexity	Α	12			
		te Score		•	Final Attı	ribute Score =	
Initiai	Auribu	te Score		15	(Initial Sc	ore/24) x 100	62.5
Biotic Structure							
Horizontal Interspersion and Z	Zonation	ı	Α	12			
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			0% non-na	tive spp.	
Community Composition submetric					0 1 :		
C: Endemic Species Richness	D	3			0 endemic	spp.	
Plant Community Con (numeric average				8			
, ,				I 0	Final Att	ribute Score =	
Initial		20		ore/24) x 100	83.3		
Overall AA Score (Av	verage (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
(WITHIN 50 M OF AA)	Present	to have significant negative effect on
(WITHIN 50 W OF AA)		AA
		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 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 (less than 5 meters west of AA)		

Basic Information: Individual Vernal Pool

CKA	M Site ID: A	PN: 333-030-006			
Proje	ect Site ID: F	resno to Bakersfield	HST		
Asse	ssment Area	Name: V115A			
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		
G. Pe	racca				
A. Laı	ngston				
C. Ro	berts				
	and Categor X Natural	y: □ Constructed	□ Restoration	n (Rehabilitation OR En	nhancement)
If Cr		tored, does the ac	_	ss: on of the wetland	
Wha		bes the hydrologic led/inundated		vetland at the time of as	ssessment? X dry
	□ long-d		ium-duration	X short-duration	
	•	□ yes	X no	odplain of a nearby stre	:am;
Ph		cation Numbers a			
	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					
*Apri CRAN		ed using new Individ on old VP module V 80.9		V. 6.0).	

Scoring Sheet: Individual Vernal Pools

AA Name: V115A					(m/d/y)	09/27/2011	
Attributes and Me	Alpha.	Numeric		Comments			
Buffer and Landscape Conte							
(A) Aquatic A	(A) Aquatic Area Connectivity						
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with	buffer	
(C): Average Buffer Width	В	9			Avg=186.9	m	
(D): Buffer Condition	В	9					
	l.		1/ 1/		Final Att	ribute Score =	
Initial Attribute Score =	A + [D	х (ВхС	$(2)^{72}$] 72	21.7		ore/24) x 100	90.3
Hydrology				1		, ,	
7	Wate	r Source	Α	12			
	Hyd	roperiod	Α	12			
Hydrolo	gic Con	nectivity	Α	12			
Initial	A ttaibu	te Score			Final Attr	ribute Score =	
Initiai .	Auribu	te Score		36	(Initial Sc	ore/36) x 100	100
Physical Structure							
Structura	l Patch l	Richness	D	3	2 patch types		
Topogra	phic Co	mplexity	Α	12			
Initial	Attribu	te Score				ribute Score =	
IIItiai	rittiibu			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	В	9			5 co-domii	nant spp.	
Community composition submetric		4.0			200/		
B: Percent Non-native	Α	12			20% non-r	iative spp.	
Community Composition submetric C: Endemic Species Richness		2			0 endemic	snn	
Plant Community Con	D	n Metric			o endeniic	<u> </u>	
(numeric average				8			
Initial				ribute Score =	70.8		
			ı	17	`	ore/24) x 100	
Overall AA Score (Av	verage (of Final	Attribut	e Scores)		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		

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 about 50 meters away.		

Basic Information: Vernal Pool Systems

CRA	M Site ID: AP	N: 333-020-005						
Proje	Project Site ID: Fresno to Bakersfield HST							
	Assessment Area Name: VS97A							
Proje	ct Name: Fresi	no to Bakersfield H	HST :	Date (m/d/y)	9	26 11		
		Members for Th						
J. Whi	tfield		G. Peracca					
C. Rob	erts		A. Langston					

	and Category:			7.1.1.11				
,	(Natural □	Constructed	□ Restoration	(Rehabilitation OR	R Enhance	ment)		
If Cre		red, does the ac	-					
	□ e:	ntire wetland	□ portion	n of the wetland				
What		•	state of the we	etland at the time o	of assessn	nent?		
	□ ponded	l/inundated	□ saturated soil	, but no surface wat	er X	dry		
What	is the apparer	nt hydrologic reg	gime of the we	tland?				
	□ long-dura	ation medi	um-duration	X short-duration				
Does	the vernal poo	ol system conne	ct with the floo	dplain of a nearby	stream?			
	•	•	X no	1				
Ph		ion Numbers ar	nd Description	:				
	Photo ID	Description	Latitude	Longitude	1	Datum		
	No.							
1	1232	North						
2	1234	South						
3	1233	East						
4	1235	West						
	5							
6								
	ments:		.al.\/D.N.4==l.:l= /\/	((0)				
•	•	using new Individu	•	. ხ.ሀ).				
		old VP module V.	5.0.3 = 68.5					
New C	CRAM score = 76	5.7						

Scoring Sheet: Vernal Pool Systems

AA Name: VS97A			(m/d/y) 09/26/2011				
Attributes and Metrics			Alpha.	Numeric	Comments/Scores		
Buffer and Landscape Context							
(A) Aquatic Area Connectivity			В	9	Avg=15%		
(B): Percent of AA with	Alpha.	Numeric					
Buffer	Α	12			100% with buffer		
(C): Average Buffer Width	В	9			Avg=151.9m		
(D): Buffer Condition	В	9					
T 1.1 1 A 11	(T) (C)	$\frac{1}{2}$ $\frac{1}{2}$			Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	(B x C)	/- J /-		18.7	(Initial Score/24) x 100	77.8	
Hydrology							
	Wate	er Source	Α	12			
	Hyd	lroperiod	В	9			
Hydrolo	ogic Cor	nectivity	В	9			
Initial Attribute Score					Final Attribute Score =		
Illitial Attribute Score				30	(Initial Score/36) x 100	83.3	
Physical Structure							
Structural Patch Richness			В	9	8 patch types		
Pool and	l Swale	Density	Α	12	Avg=60%		
Topogra	phic Co	mplexity	С	6			
Initial Attribute Score					Final Attribute Score =		
Imital Attribute Score				27	(Initial Score/36) x 100	75	
Biotic Structure							
	Alpha.	Numerio					
Plant Community submetric A:							
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		L					
(average of submetrics A-C)				8			
Horizontal Interspersion and Zonation							
·			В	9			
Initial Attribute Score					Final Attribute Score =		
				17	(Initial Score/24) x 100	70.8	
Overall AA Score (Average of Final	l Attrib	ute Scor	es)				
(overall fire Score (reverage of a mai retiribute Scor				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 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	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

Project Site ID: Fresno to Bakersfield HST						
1 10 cet ofte 1B. Tresho to bakersheld 1131	Project Site ID: Fresno to Bakersfield HST					
Assessment Area Name: VS99A						
Project Name: Fresno to Bakersfield HST Date (m/d/y) 9 26 1	1					
Assessment Team Members for This AA						
J. Whitfield G. Peracca	ļ					
C. Roberts A. Langston						
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						
District of the state of the st						
Photo Identification Numbers and Description: Photo ID Description Latitude Longitude Datum	7					
Photo ID Description Latitude Longitude Datum						
1 1236 North 35.00945 -119.36341	1					
2 1238 outh	-					
3 1237 East	-					
4 1239 West	1					
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 = 77.5						
New CRAM score = 82.7						

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							
(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					
	~	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	Α	12			
	Hyd	lroperiod	Α	12			
Hydrolo	gic Cor	nectivity	В	9			
Initial Attribute Score				•	Final Attribute Score =		
Illuai 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=58.8%		
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	
Biotic Structure							
	Alpha.	Numeric					
Plant Community submetric A:	1-						
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		D	0				
			В	9	Final Attribute Score =		
Initial Attribute Score				17	(Initial Score/24) x 100	70.8	
Overall AA Score (Average of Final	Attrib	ute Score	es)		,		
			-		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	•	

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		

Basic Information: Vernal Pool Systems

CRA	M Site ID: APN	V: 333-020-005								
Proje	ct Site ID: Fres	no to Bakersfield	HST							
Asses	sment Area Na	ame: VS104A								
Proje	ct Name: Fresn	o to Bakersfield F	IST	Date (m/d/y)	9	27	11			
Asses	sment Team N	Members for Th								
A. Lan	gston		G. Peracca							
C. Rob	C. Roberts									
Wetla	and Category:									
>	K Natural □	Constructed	□ Restoration	(Rehabilitation OR	Enhance	ment)				
If Cre		ed, does the act	_	n of the wetland						
What		the hydrologic /inundated		etland at the time of the line		nent? dry				
What	□ long-dura	t hydrologic reg tion □ medi		X short-duration						
Does	the vernal poo	l system connec	ct with the floo	odplain of a nearby	stream?					
		□ yes	X no							
Dh	ata Idantificati	on Numbers ar	nd Dosarintian	•						
1110	Photo ID	Description 1	Latitude	Longitude	1	Datum	\neg			
	No.	Description	Latitude	Longitude	•	Juluin				
1	1260	North	35.80731	-119.36221						
2	1262, 63	South								
3	1261	East								
4	1264	West								
5										
6										
Comr	nents:			·	•					
*April	2012: updated ι	ısing new Individu	ual VP Module (\	/. 6.0).						
CRAM	score based on	old VP module V.	5.0.3 = 67.5							
New C	RAM score = 77.	8								

Scoring Sheet: Vernal Pool Systems

AA Name: VS104A				(m/d/y) 09/27/2011			
Attributes and Metrics			Alpha.	Numeric	Comments/Scores		
Buffer and Landscape Context			-				
(A) Aquatic Area Connectivity			В	9	Avg=15%		
(B): Percent of AA with	Alpha.	Numeric					
Buffer	Α	12			100% with buffer		
(C): Average Buffer Width	В	9			Avg=186.9m		
(D): Buffer Condition	В	9					
	~ ~	1/2 - 1/2			Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	Initial Attribute Score = A + $[D \times (B \times C)^{\frac{1}{2}}]^{\frac{1}{2}}$			18.7	(Initial Score/24) x 100	77.8	
Hydrology							
	Wate	er Source	Α	12			
	Нус	lroperiod	Α	12			
Hydrolo	gic Cor	nectivity	Α	12			
. 5					Final Attribute Score =		
Initial Attribute Score				36 (Initial Score/3)		100	
Physical Structure							
Structural Patch Richness				9	9 patch types		
Pool and	Swale	Density	Α	12	Avg=46.3%		
Topogra	phic Co	mplexity	С	6			
T ''' 1 A '1 C	-	-		1	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	С	6			3 co-dominant spp.		
Plant Community submetric B:							
Percent Non Native	С	6			42.9% non-native spp.		
Plant Community submetric C:							
Endemic Species Richness	D	3			0 endemic spp.		
Plant Community Metric	•						
(average of submetrics A-C)				5			
Horizontal Interspersion and Zonatio	n						
			В	9	E' 1 A 44 '1 C		
Initial Attribute Score				14	Final Attribute Score = (Initial Score/24) x 100	58.3	
Overell AA Soome (Assessed of Elizati	O 1144 O (4 CF) 14 (1 CF)				11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20.3	
Overall AA Score (Average of Final	Overall AA Score (Average of Final Attribute Score				77.8		

Worksheet 9: Stressor Checklist.

Present	Present and likely to have significant negative effect on AA
Х	
ence on AA h	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		•
AA within 500 meters of orchard (to the west)		
AA within 500 meters of SR43/BNSF RR	·	

Basic Information: Vernal Pool Systems

Cl	RAI	M Site ID: AI	PN: 333-020-005								
Pr	oje	ct Site ID: Fre	esno to Bakersfield	HST							
			Name: VS107A								
Pr	oje	ct Name: Fre	sno to Bakersfield I	HST	Date (m/d/y)	9	22	11			
As	Ses	sment Team	Members for Th	nis AA				•			
_	A. Langston J. Love										
	ŭ										
C.	C. Roberts C. Julian										
W /	etla	nd Category:	,								
vv		•	□ Constructed	□ Restoration	(Rehabilitation OR	Enhance	ment)				
	•	Naturai	- Constructed	□ Restoration	(Renabilitation Or	L'Illiance	incirc)				
If	Cre	ated or Resto	ored, does the ac	tion encompa	ss:						
			entire wetland	-	on of the wetland						
				_							
W	hat	best describe	es the hydrologic	state of the w	etland at the time o	of assessn	nent?				
			d/inundated		il, but no surface wat		dry				
		= ponde	a) manada		n, such a surface was	.01	ar y				
X /	hat	is the annare	ent hydrologic re	gime of the we	etland?						
W	mai	is the appare	in nyurologic re	gille of the we	cuanu:						
		□ long-du:	ration □ medi	um-duration	X short-duration						
D	oes	the vernal po	•		odplain of a nearby	stream?					
			□ yes	X no							
	Dh	ata Idantifia	tion Numbers a	nd Description	•						
	1 110	Photo ID	Description	Latitude	Longitude	1	Datum				
		No.	Bescription	Latitude	Longitude	-	Datum				
	1	1224	North	35.80561	-119.36192						
	2	1226	South								
	3	1225	East								
	4	1227	West								
	5										
	6										
Co	omr	nents:			<u>.</u>	•		•			
*A	pril	2012: updated	l using new Individ	ual VP Module (V. 6.0).						
CR	AM	score based o	n old VP module V.	5.0.3 = 74.5							
Ne	w C	RAM score = 8	0.6								
	New Chairi score - 80.0										

Scoring Sheet: Vernal Pool Systems

AA Name: VS107A					(m/d/y) 09/22/2011			
Attributes and Metrics			Alpha.	Nume	eric	Comments/Scores		
Buffer and Landscape Context			-					
(A) Aquatic Area Connectivity			В	9		Avg=13.8%		
(B): Percent of AA with	Alpha.	Numeric						
Buffer	Α	12				100% with buffer		
: Average Buffer Width A 12						Avg=200.8m		
(D): Buffer Condition	В	9						
						Final Attribute Score =		
Initial Attribute Score = A + $[D \times (B \times C)^{\frac{1}{2}}]^{\frac{1}{2}}$				19.	4	(Initial Score/24) x 100	80.8	
Hydrology								
	Water Source							
	Нус	lroperiod	Α	12				
Hydrolo	ogic Cor	nnectivity	Α	12				
				•		Final Attribute Score =		
Initial Attribute Score				36		(Initial Score/36) x 100		
Physical Structure								
Structural Patch Richness				9		10 patch types		
Pool and	l Swale	Density	В	9		Avg=30%		
Topogra	phic Co	mplexity	В	9				
	1	1 ,		-1		Final Attribute Score =		
Initial Attribute Score				27		(Initial Score/36) x 100	75	
Biotic Structure								
	Alpha.	Numerio						
Plant Community submetric A:								
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	1						
(average of submetrics A-C)				7				
Horizontal Interspersion and Zonation	n							
			В	9		T 1 4 11 0		
Initial Attribute Score						Final Attribute Score =		
				16		(Initial Score/24) x 100	66.7	
Overall AA Score (Average of Fina	l Attrib	ute Scor	es)					
\ 0					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		

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	·	•
Orchard approximately 450 meters to the east.		

Basic Information: Vernal Pool Systems

CRAM Site ID: APN: 333-030-006								
Pı	Project Site ID: Fresno to Bakersfield HST							
A۶	ses	sment Area N	lame: VS112					
Pı	oje	ct Name: Fresi	no to Bakersfield I	HST	Date (m/d/y)	9	22	11
As	ses	sment Team	Members for Th	nis AA				
Α.	Lan	gston		J. Love				
C.	Rob	erts		C. Julian				
W	etla	nd Category:						
	Х	X Natural □	Constructed	□ Restoration	(Rehabilitation OF	₹ Enhance	ment)	
If	Cre		red, does the ac	-	s: n of the wetland			
		□ ponded	l/inundated	□ saturated soil	etland at the time of the time		nent? dry	
What is the apparent hydrologic regime of the wetland? □ long-duration □ medium-duration X short-duration								
D	oes	the vernal poo	•	ct with the floo	dplain of a nearby	stream?		
			,					
	Pho		ion Numbers a	nd Description	•			
		Photo ID	Description	Latitude	Longitude	1	Datum	
	4	No.						
	1	1209, 16	North					
	2	1211, 18	South					
	3	1210, 17	East					
	4	1212, 19	West					
	5 6							
<u> </u>		monto.						
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								
		RAM score = 76						

Scoring Sheet: Vernal Pool Systems

AA Name: VS112					(m/d/y) 09/22/2011		
Attributes and Metrics				Nume	ric Comments/Scores		
Buffer and Landscape Context							
(A) Aquatic Area Connectivity			В	9	Avg=14.8%		
(B): Percent of AA with	Alpha.	Numeric					
Buffer	A	12			98% with buffer		
(C): Average Buffer Width	В	9			Avg=145m		
(D): Buffer Condition	В	9					
		1/2 - 1/2			Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	$(B \times C)$	/2] /2		18.7	(Initial Score/24) x 100 77.8		
Hydrology							
	Wate	er Source	В	9			
	Нус	lroperiod	В	9			
Hydrolo	ogic Cor	nnectivity	В	9			
Luitial Attailanta Cana				•	Final Attribute Score =		
Initial Attribute Score				27	(Initial Score/36) x 100 75		
Physical Structure			•				
Structural Patch Richness				9	9 patch types		
Pool and Swale Density				12	Avg=56.3%		
Topographic Complexity				9			
				L	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		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				o chachine spp.			
(average of submetrics A-C)				8			
Horizontal Interspersion and Zonation							
			В	9			
Initial Attribute Score					Final Attribute Score =		
Initial Attribute Score			17		(Initial Score/24) x 100 70.8		
Overall AA Score (Average of Fina	1 Attrib	ute Scor					
Overall The Score (Tiverage of Tilla	1 1111111	uic 5001			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

C	CRAM Site ID: APN: 333-030-006							
Pı	oje	ct Site ID: Free	sno to Bakersfield	HST				
		sment Area N						
Pı	oje	ct Name: Fresi	no to Bakersfield H	HST	Date (m/d/y)	9	27	11
			Members for Th				l .	II.
_		gston	WICHIDEIS IOI III	G. Peracca				
Α.	Lan	gston		G. Peracca				
C.	Rob	erts						
W		nd Category:						
	X	Natural 🗆	Constructed	□ Restoration	ı (Rehabilitation OR	Enhance	ment)	
-								
т.с	_			.•				
lf	Cre		red, does the ac	-				
		□ e:	ntire wetland	□ portio	on of the wetland			
W	hat	best describe	s the hydrologic	state of the w	etland at the time of	of assessn	nent?	
		□ ponded	l/inundated	□ saturated so	il, but no surface wat	er X	dry	
W	hat	is the apparer	nt hydrologic re	gime of the wo	etland?			
		• •	, ,	3				
		□ long-dura	ation □ medi	um-duration	X short-duration			
D		.1 1	•		111 0 1			
D	oes	the vernal poo	•		odplain of a nearby	stream:		
			⊔ yes	X no				
	Pho	nto Identificat	ion Numbers a	nd Description	n•			
	1110	Photo ID	Description	Latitude	Longitude	1	Datum	
		No.	Beschption	Latitude	Zongnade		o www.	
	1	1248	North					
	2	1250	South					
	3	1249	East					
	4	1251	West					
	5							
	6							
Co	mr	nents:						
*⊿	pril	2012: updated	using new Individu	ual VP Module (V. 6.0).			
CR	AM	score based on	old VP module V.	5.0.3 = 74.7				
Ne	w C	RAM score = 80).9					

Scoring Sheet: Vernal Pool Systems

AA Name: VS114A				(m/d/y) 09/27/2011			
Attributes and Metrics				Numeric	Comments/Scores		
Buffer and Landscape Context							
(A) Aquatic Area Connectivity			Α	12	Avg=34.8%		
(B): Percent of AA with	Alpha.	Numeric					
Buffer	Α	12			100% with buffer		
(C): Average Buffer Width	В	9			Avg=184.4m		
(D): Buffer Condition	В	9					
	<i>(</i> D)	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 =		
Illiniai Attribute Score				36	(Initial Score/36) x 100	100	
Physical Structure							
Structura	l Patch	Richness	В	9	9 patch types		
Pool and	Swale	Density	В	9	Avg=30%		
Topogra	phic Co	mplexity	С	6			
T :: 1 A :: 1		<u> </u>		I	Final Attribute Score =		
Initial Attribute Score				24	(Initial Score/36) x 100	66.7	
Biotic Structure							
	Alpha.	Numeric					
Plant Community submetric A:							
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				
			D	<u> </u>	Final Attribute Score =		
Initial Attribute Score				16	(Initial Score/24) x 100	66.7	
Overall AA Score (Average of Final	Attrib	ute Score	es)		90.0		
		-		80.9			

Worksheet 9: Stressor Checklist.

Present	Present and likely to have significant negative effect on AA
Х	

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		
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

You	r Name: A. Lang	ston			
Asse	ssment Area N	ame: D304			
Asse	ssment No.		Date	e (mm/dd/yyyy): 0	5/16/2012
A cco	ssment Team l	Members for Th	sis AA		
	racca	WICHIDEIS IOI III	IIS AA		
0.10	racca				
A.Lan	ngston				
E. Ma	aroni				
AA	A Category:				
] Restoration	[] N	litigation	[] Impacted	X Other
W	hich best descr	ibes the type of	depressional wetla	and?	
		• -	_		- 41 (: C-)
	X freshwater m	iarsii [] ai	kaline marsh [] alkali flat []	other (specify):
W /1	hich best descr	ibes the hydrolo	ogic state of the we	tland at the time of	rassessment?
** .		·			
	[] ponded/	inundated	[] saturated soil,	but no surface water	X dry
\mathbf{W}	hat is the appar	rent hydrologic	regime of the wetla	and?	
Lo	ng-duration depre	essional wetlands a	re defined as supporti	ng surface water for >	9 months of the
				wetlands are defined a	
			•	-duration wetlands pos	ssess surface water
bei		d 4 months of the	•		
	[] long	g-duration	[] medium-durati	on X short-du	ration
				nearby stream? [
				longer functions as a flo	w-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 distinct	or [] indistinct?	
	101			eadows, which may be	intricately
				ery large areas, topogra	
				nples of such features	
dep	pressional wetland	ls in very low-grad	ient landscapes.		
D1	noto Idontificat	ion Numbers a	nd Descriptions		
	Photo ID	Description	Latitude	Longitude	Datum
	No.	2 0001111111111111111111111111111111111			
1	5660	North			
2	5658	South			
3	5661	East			
4	5659	West			

Scoring Sheet: Perennial Depressional Wetlands

AA Name: D304				Date: 05/16/2012	
Attributes and Metrics		Sco	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				
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribut$	ute Score	Raw	Final	Final Attribute Score =	
		19.4	80.8	(Raw Score/24)100	80.8
Hydrology					
	er Source		9		
Hydroperiod or Channe	el Stability		9		
Hydrologic Co:	nnectivity	1	.2		
Attribute 9	Attribute Score83.3		Final	Final Attribute Score =	
Attribute Scoress.s		30	83.3	(Raw Score/36)100	83.3
Physical Structure					
Structural Patch	Richness	;	3		2 Patches
Topographic Complexity			9		
A ++++i1n-	ute Score	Raw	Final	Final Attribute Score =	
Attribu	ate 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			6		
Vertical Biotic	Structure		.2		
Attribute Score		Raw 25	Final 69.4	Final Attribute Score = (Raw Score/36)100	69.4
Overall AA Score (Avera	age of Fina				

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	ssment Area N	ame: Buena Vista	a Dairy D304		
Asse	ssment No.		Da	ate (mm/dd/yyyy):	05/16/2012
A cco	sement Team l	Members for Th	ois AA		
	racca	VICINIDEIS IOI II	IIS AA		
0.10	ruccu				
A.Lar	ngston				
E. Ma	aroni				
A.	A Category:				
	[] Restoration	[] N	litigation	[] Impacted	X Other
W	hich best descr	ibes the type of	depressional we	tland?	
		• •	•		1 -41 (:::
	X freshwater m	iarsii [] ai	kaline marsh	[] alkali flat [] other (specify):
W	hich best descr	ibes the hydrolo	ogic state of the v	vetland at the time	of assessment?
** -		·			
	[] ponded/	inundated	[] saturated soi	l, but no surface wate	er X dry
W	hat is the appar	rent hydrologic	regime of the we	tland?	
Lo	ng-duration depre	essional wetlands a	re defined as suppo:	rting surface water for	> 9 months of the
				al wetlands are defined	
			•	ort-duration wetlands p	ossess surface water
bei		d 4 months of the	•		
	[] long	g-duration	[] medium-dur	ation X short-d	uration
				a nearby stream?	
					low-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 :)
	1 0 1			meadows, which may	
					graphic basin is one that
				camples of such feature	
dej	pressional wetland	ls in very low-grad	ient landscapes.		
D1	noto Identificat	ion Numbers a	nd Descriptions		
	Photo ID	Description	Latitude	Longitude	Datum
	No.	Bescription	Lattace	Longitude	2 attain
1	5660	North	_		
2	5658	South			
3	5661	East			
4	5659	West			

Scoring Sheet: Perennial Depressional Wetlands

AA Name: Buena Vista Dairy D30	4			Date: 05/16/2012	
Attributes and Metrics		Sco	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		1		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribut$	ute Score	Raw	Final	Final Attribute Score =	
		19.4	80.8	(Raw Score/24)100	80.8
Hydrology					
	ter Source		9		
Hydroperiod or Channe	el Stability		9		
Hydrologic Co	nnectivity	1	L2		
Attribute S	Score83 3	Raw	Final	Final Attribute Score =	
Attribute Scoress.5		30	83.3	(Raw Score/36)100	83.3
Physical Structure					
Structural Patch	Richness		3		2 Patches
Topographic Complexity			9		
Atteils	ute Score	Raw	Final	Final Attribute Score =	
Attilble	ate 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	,		7		
(average of subm			7		
Horizontal Interspersion and			6		
Vertical Biotic	Structure		L2	E' 1 A '1 C	
Attrib	ute Score	Raw	Final	Final Attribute Score =	66.4
		25	69.4	(Raw Score/36)100	69.4
Overall AA Score (Aver	age of Fina	al Attribu	ite Scores	70.0	
`				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

Your	Name: A. Lang	ston			
Asse	ssment Area N	ame: Buena Vista	a Dairy D305		
Asse	ssment No.		Date	(mm/dd/yyyy): 0	5/16/2012
Asse	ssment Team l	Members for Th	nis AA		
G. Pe					
A.Lan	gston				
E. Ma	ıroni				
AA	Category:				
[] Restoration	[] N	Mitigation	[] Impacted	X Other
W1	hich best descr	ibes the type of	depressional wetla	nd?	
	X freshwater m	arsh []al	lkaline marsh [] alkali flat []	other (specify):
		t J	t	1 (1	(1)/
W1	hich best descr	ibes the hydrolo	ogic state of the wet	land at the time of	f assessment?
	[] ponded/	inundated	[] saturated soil, b	out no surface water	X dry
W1	hat is the appar	rent hydrologic	regime of the wetla	nd?	·
yea sur	r (in > 5 out of 1) face water for bet	0 years.) Medium-	re defined as supportinduration depressional viths of the year. Short-year.	wetlands are defined a	s supporting
	[]long	g-duration	[] medium-duration	on X short-du	ration
Do	oes your wetlan	d connect with	the floodplain of a	nearby stream? [] yes X no
An inte lacl	indistinct, such a erspersed with up ks obvious bound	s vernal pool comp lands or seemingly	plexes and large wet me homogeneous over verand and upland. Examinent landscapes.	eadows, which may be ry large areas, topogra	phic basin is one that
Ph		ion Numbers a			
	Photo ID No.	Description	Latitude	Longitude	Datum
1	1253	North			
2	1251	South			
3	1252	East			
4	1250	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	ctivity (D)	1	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		T		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attribut$	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	Attribute Scoress.5		83.3	(Raw Score/36)100	83.3
Physical Structure					
Structural Patch	Richness		3	3 patch types	
Topographic Complexity			9		
Attrib	ite 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 C	
Attrib	ite Score	Raw	Final	Final Attribute Score =	FF 6
		20	55.6	(Raw Score/36)100	55.6
Overall AA Score (Aver	age of Fina	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 Vis	ta Dairy					
Project Site ID: Fresno to Bakersfield HST CMP						
Assessment Area Name:	V305					
Project Name: Fresno to I	Bakersfield H	ST	Date (m/d/y)	5	16	12
Assessment Team Mem	bers for Thi	is AA				
G. Peracca						
A.Langston						
E. Maroni						
Wetland Category:						
X Natural □ Con	structed	□ Restoration	(Rehabilitation OR	R Enhancer	ment)	
If Created or Restored, o		_	s: n of the wetland			
What best describes the □ ponded/inur			etland at the time of the but no surface wat		nent? dry	
What is the apparent hyd	0 0		X short-duration			
Does the vernal pool system connect with the floodplain of a nearby stream?						
Photo Identification N	Jumbers an	d Description	:			
Photo ID De No.	scription	Latitude	Longitude	Ι	Datum	
1 1259 Noi	rth					
2 1258 Sou	_					
3 1265 Eas						
4 1264 We						
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 Context							
(A) Aquatic A	rea Con	nectivity	Α	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}			ribute Score =	
Initial fittibate score		Т (В А С	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	33			ribute Score =	
					(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 snn	
Community composition submetric					+ co domi	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 .	Attribu	te Score		13		ribute Score = core/24) x 100	54.2
Overall AA Score (Average of Final Attrib					`	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		

		Present and Likely
BIOTIC STRUCTURE ATTRIBUTE	Present	to Have Significant
(WITHIN 50 M OF AA)	riesent	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		
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

CRAM Site ID: APN: Buena Vista Dairy
Project Site ID: Fresno to Bakersfield CMP
Assessment Area Name: VS 305
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						
(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				
T 1.1 1 A 11	(T) (C)	$\frac{1}{2}$ $\frac{1}{2}$			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	Α	12		
	Нус	lroperiod	В	9		
Hydrolo	gic Cor	nnectivity	Α	12		
Initial Attribute Score					Final Attribute Score =	
Initial Attribute Score				33	(Initial Score/36) x 100	91.7
Physical Structure						
Structura	l Patch	Richness	В	9	8 patch types	
Pool and	l Swale	Density	Α	12		
Topogra	phic Co	mplexity	С	6		
Initial Attribute Score					Final Attribute Score =	
Illitial Attribute Score				27	(Initial Score/36) x 100	75
Biotic Structure						
	Alpha.	Numerio	<u>:</u>			
Plant Community submetric A:						
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				
(average of submetrics A-C)				6		
Horizontal Interspersion and Zonation			_	_		
			В	9	E' 1 A '1 O	
Initial Attribute Score					Final Attribute Score =	
				15	(Initial Score/24) x 100	62.5
Overall AA Score (Average of Fina	l Attrib	ute Scor	es)		00.6	
					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	•	

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	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

CRAM Site ID: APN: Buena Vista Dairy VS307									
_	Project Site ID: Fresno to Bakersfield CMP								
Asse	Assessment Area Name: VS307								
Proje	ect Name: Free	sno to Bakersfield H	HST	Date (m/d/y)	5	16 12			
Asse	ssment Team	Members for Th	nis AA						
E.Ma	roni								
A. Lar	ngston								
G. Pe	racca								
Wetl	and Category:	:					_		
	•	□ Constructed	□ Restoration	(Rehabilitation OF	R Enhance	ment)			
If Cr		ored, does the ac	-	ss: on of the wetland					
	□ ponde	ed/inundated	□ saturated so	retland at the time of the control o		n ent? dry			
Wha	t is the appare	ent hydrologic rearration	gime of the we						
Does	s the vernal po	ool system conne	ct with the flo	odplain of a nearby	stream?				
		□ yes	X no						
P1	oto Identifica	ution Numbers as	nd Description	า•					
	Photo ID	Description	Latitude	Longitude	1	Datum			
	No.	1							
1	1255	North							
2	1256	South							
3	1254	East							
4	1257	West							
5									
6									
Com	ments:								

Scoring Sheet: Vernal Pool Systems

AA Name: Buena Vista Dairy VS307						(m/d/y) 05/16/2012	
Attributes and Metrics				Num	eric	Comments/Scores	
Buffer and Landscape Context							
(A) Aquatic Area Connectivity				12	2	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					
	7 6	$\frac{1}{2}$, $\frac{1}{2}$				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	2		
Hydrole	ogic Cor	nnectivity	Α	17	2		
Initial Attribute Score						Final Attribute Score =	
Imital 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				12	2	Avg=76.3%	
Topographic Complexity			С	6			
T 1.1 1 A 11	<u> </u>	1 ,				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							
(average of submetrics A-C)				7			
Horizontal Interspersion and Zonatic	n						
			В	9		E' 1 A 44 '1 C	
Initial Attribute Score				16		Final Attribute Score = (Initial Score/24) x 100	66.7
			1	16		(1111trai Score/ 24) x 100	66.7
Overall AA Score (Average of Fina	l Attrib	ute Score	es)			81.7	
(0						81./	

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	Х	
Orchards/nurseries		
Commercial feedlots		
Dairies		
Ranching (enclosed livestock grazing or horse paddock or feedlot)		
Transportation corridor	X	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. Lang	ston			
Asse	ssment Area N	ame: Davis D301			
Asse	ssment No.		Date	(mm/dd/yyyy):	05/17/2012
Asse	ssment Team 1	Members for Th	nis AA		
G. Pe					
A. Lar	ngston				
E. Ma	roni				
AA	Category:				
[] Restoration	[] N	Mitigation (1997)	[] Impacted	X Other
Wl	nich best descr	ibes the type of	depressional wetla	nd?	
	[] freshwater	marsh []	alkaline marsh	[] alkali flat	X other (specify):
Wi	nich best descr	ibes the hydrolo	ogic state of the wet	land at the time	of assessment?
	[] ponded/	inundated	[] saturated soil, b	out no surface wate	er X dry
Wi			regime of the wetla		
Los yea sur	ng-duration depre r (in > 5 out of 1 face water for bet	essional wetlands a 0 years.) Medium-	re defined as supportin duration depressional v of the year. Short-	g surface water for wetlands are defined	l as supporting
	[] long	g-duration	[] medium-durati	on X short-dı	uration
Do	es your wetlan	d connect with	the floodplain of a	nearby stream?	[] yes X no
Is	the topographi	c basin of the w	retland [] distinct	t or X indistinct	;
inte lacl	erspersed with up ks obvious bound	lands or seemingly	and and upland. Exan	ry large areas, topog	graphic basin is one that
Ph	oto Identificat	ion Numbers a	nd Description:		
	Photo ID No.	Description	Latitude	Longitude	Datum
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 Se		Sco	ores	Comments	
Buffer and Landscape Context					
Landscape Connectivity (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				
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attrib$	ute Score	Raw	Final	Final Attribute Score =	
$D + [C \times (H \times D)] = \mathbf{Rt} \mathbf{H} \mathbf{D}$	ate score	20.2	84	(Raw Score/24)100	84
Hydrology					
Wat	ter Source	1	12	groundwater	
Hydroperiod or Channe	el Stability		9		
				*would this be a "c" or	"a". talk to
Hydrologic Co	nnectivity		9	Chad, old man-1	made basin
Atteils	ute Score	Raw	Final	Final Attribute Score =	
Attiib	ute score	30	83.3	(Raw Score/36)100	83.3
Physical Structure					
Structural Patch	Richness		3	2 patch types	
Topographic C	omplexity		6		
A:1.	ute Score	Raw	Final	Final Attribute Score =	
Attrib	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			3 co-dominant spp.	
Plant Community submetric C:					
Percent Invasion	12			0% invasion	
Plant Commun	,				
(average of submetrics A-C)			7		
Horizontal Interspersion and			9		
Vertical Biotic	Structure	1	12		
Attrib	ute Score	Raw 28	Final 77.8	Final Attribute Score = (Raw Score/36)100	77.8
Overall AA Score (Aver	age of Fin:				77.0
			70.7		

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		
		·

Present and likely to have negative effect on AA	Significant negative effect on AA
•	
	_
	to have negative

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): 05/17/2012
A cco	ssment Team l	Members for Th	sis AA		
G. Pe		WICHIDEIS IOI II	119 7474		
• • •					
A. Lar	ngston				
E. Ma	ıroni				
AA	Category:				
[] Restoration	[] N	Mitigation	[] Impacted	X Other
W1	hich best descr	ribes the type of	depressional wetla	nd?	
	[] freshwater	marsh []	alkaline marsh	X alkali flat	[] other (specify):
W1	hich best descr	ibes the hydrolo	ogic state of the we	tland at the tim	e of assessment?
	[] ponded/	inundated	[] saturated soil, b	out no surface wa	ater X dry
W1	hat is the appar	rent hydrologic	regime of the wetla	nd?	
Long-duration depressional wetlands are defined as supporting surface water for > 9 months of the year (in > 5 out of 10 years.) Medium-duration depressional wetlands are defined as supporting surface water for between 4 and 9 months of the year. Short-duration wetlands possess surface water between 2 weeks and 4 months of the year.					
	[]long	g-duration	[] medium-durati	on X short-	-duration
Do	oes your wetlan	d connect with	the floodplain of a	nearby stream?) [] yes X no
Is	the topographi	c basin of the w	v etland [] distinc	et or X indistinc	et ?
into lacl	erspersed with up ks obvious bound	lands or seemingly	land and upland. Exan	ery large areas, top	ographic basin is one that
Ph	oto Identificat	ion Numbers a	nd Description:		
	Photo ID No.	Description	Latitude	Longitude	e Datum
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				
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attributes$	ute Score	Raw	Final	Final Attribute Score =	
_ []()]		20.2	84	(Raw Score/24)100	84
Hydrology					
Wat	er Source		12	groundwater	
Hydroperiod or Channe	el Stability		9		
Hydrologic Co	nnectivity		9		
Attribute Score		Raw	Final	Final Attribute Score =	
Attilbo	aic score	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 =	
Attribu	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		12		
Attribute Score		Raw	Final	Final Attribute Score =	
		25	69.4	(Raw Score/36)100	69.4
Overall AA Score (Aver	age of Fig.	al Attribu	ite Scores		
Overall The Score (Aver	age of Fill	a1 / 11111DU	**** DCO1CS	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		

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

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								
. Maroni								
Wetland Category:								
X Natural □ Constructed □ Restoration (Rehabilitation OR Enhancement)								
f 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								
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 Metrics Alpha. Numeric					Comments			
Buffer and Landscape Conte								
(A) Aquatic A	rea Con	nectivity	Α	12	Avg= 53%			
	Alpha.	Numeric						
(B): Percent of AA with Buffer	Α	12			100% with	buffer		
(C) 4 D (C HZ: L)	_							
(C): Average Buffer Width	Α	12			Avg=250m	<u> </u>		
(D): Buffer Condition	В	9						
Initial Attribute Score =	A + [D	x (B x C)1/2] 1/2			ribute Score =		
			7 1	22.4	(Initial Sc	ore/24) x 100	93.3	
Hydrology				T				
		er Source	В	9				
		roperiod	Α	12				
Hydrolo	gic Con	nectivity	Α	12				
Initial .	Attribu	te Score				ribute Score =		
				33	(Initial Sc	ore/36) x 100	91.7	
Physical Structure	LD . 1 :	D' 1		1 6	4			
Structura			C C	6	4 patch types			
Topograj	phic Co	mplexity	C	6	E' 1 A	7		
Initial .	Attribu	te Score		12		ribute Score = ore/24) x 100	50	
Biotic Structure				12	(IIIIIIai SC	01c/24) x 100	30	
Horizontal Interspersion and Z	Conation	1	В	9				
Community composition submetric	Alpha.	Numeric						
A: Number of Co-dominants	A	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 e				9				
Initial .	Attribu	te Score		18		ribute Score = ore/24) x 100	75	
Overall AA Score (Average of Final Att				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)		1212
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: Individual Vernal Pool

CRA	M Site ID: Sta	ffel							
		sno to Bakersfield	HST (CMP)						
Asses	ssment Area N	Vame: V302							
Proje	Project Name: Fresno to Bakersfield HST (CMP) Date $(m/d/y)$ 5 15 12								
Asses	ssment Team	Members for Th	nis AA						
G. Per	асса								
A. Lar	gston								
E. Ma	roni								
Wetla	and Category:								
		□ Constructed	□ Restoration	(Rehabilitation OF	R Enhance	ement)			
If Cro		ored, does the ac entire wetland	_	ss: on of the wetland					
What		•		retland at the time of the control o		ment? dry			
Wilat		nt hydrologic re ration □ medi		X short-duration					
Does	the vernal po		ct with the floo	odplain of a nearby	stream?				
Ph	oto Identifica	tion Numbers as	nd Description	n:					
	Photo ID No.	Description	Latitude	Longitude		Datum			
1	5643	North							
2	5641	South							
3	5642	East							
4	5640	West							
5									
6									
Com	ments: Presen	ce of dumped tras	h; couch, refrige	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			
	Alpha.	Numeric					
(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				-			
		r Source	В	9			
		roperiod	Α	12			
Hydrolo	gic Con	nectivity	Α	12			
Initial	Attribu	te 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			
, , ,					Final Attr	ribute Score =	
Initial	Attribu	te Score		14		ore/24) x 100	58.3
Overall AA Score (Av	Overall AA Score (Average of Final				,	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: TeVelde	
Project Site ID: FB HST CMP	
Assessment Area Name: R300	
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: 18 m	
Approximate Length of AA (10 times bankfull width, min 100 m, max 200 m): 180 m	
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 <i>Perennial</i> streams conduct water all year long, whereas <i>ephemeral</i> streams conduct water only during and immediately following precipitation events. <i>Intermittent</i> 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	5620, 5621	Upstream			
2	5623	Middle Left			
3	5622	Middle Right			
4	5624	Downstream			
5					
5					
7					
3					
9 10					
_		• .•			
	ocation Descr	iption:			
	ocation Descr	iption:			
		ipuon:			

Scoring Sheet: Riverine Wetlands

AA Name: R300					(m/d/y) 05 14	12
Attribute 1: Buffer and Landscape Context					Comments	
Aquatic Area Abundance Sc	ore (D)		Alpha.	Numeric		
-	ore (D)		Α	12	20 meters	
Buffer:	Buffer:					
Buffer submetric A:	Alpha.	Numeric			100% with buffer	
Percent of AA with Buffer	Α	12			100% with burier	
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 (use numerical valu		. ,	, ,	16.2	Final Attribute Score = (Raw Score/24) x 100	67.7
Attribute 2: Hydrology				<u>I</u>		
			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 = si	ım of n	umeric	scores	21	Final Attribute Score = (Raw Score/36) x 100	58.3
Attribute 3: Physical Struct	ure					
			Alpha.	Numeric	2 patch types	
Structural Patch Richness			D	3		
Topographic Complexity			С	6		
Raw Attribute Score = si	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-C)		
Dlant Community submetting 1.	Alpha.	Numeric			3 layers	
Plant Community submetric A: Number of plant layers	В	9			S layers	
Plant Community submetric B: Number of Co-dominant species	С	6			7 co-dominant spp.	
Plant Community submetric C:	С	6			420/ in un air	
Percent Invasion			•,•		43% invasive spp.	
Plant Co (average of submetrics A-C round				7		
Horizontal Interspersion			С	6		
Vertical Biotic Structure			С	6		
Raw Attribute Score = sı	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	attribute 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)	Present	Significant negative effect on AA
Filling or dumping of sediment or soils (N/A for restoration areas)	Tiesent	chect on 747
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		
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)	X	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? \square yes \times 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					
5					
7					
3					
)					
10					
	ocation Descr	.p.1011.			

Scoring Sheet: Riverine Wetlands

AA Name: R302				(m/d/y) 05 14	12	
Attribute 1: Buffer and Lan	dscape	Context	-		Comments	
Aquatic Area Abundance Score (D)			Alpha.	Numeric		
			Α	12		
Buffer:						
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			V R)½ 1½	l	Final Attribute Score =	
(use numerical valu				16.2	(Raw Score/24) x 100	67.7
Attribute 2: Hydrology					. ,	ı
7 67			Alpha.	Numeric		
Water Source			С	6		
Channel Stability			В	9		
Hydrologic Connectivity			Α	12	Entrenchment ratio = 2.3	
Raw Attribute Score = st	um 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				•		•
Plant Community Composition	on (base	d on sub	-metrics [1-C)		
	Alpha.	Numeric				
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	С	6			40% invasion	
Plant Community Composi				9		
(average of submetrics A-C rounded to nearest whole			integer) B	9		
Horizontal Interspersion Vertical Biotic Structure			C	6		
					Final Attribute Score =	
Raw Attribute Score = sum of numeric sco				24	(Raw Score/36) x 100	67.7
Overall AA Score (average	ge of fou	ır final A	ttribute S	cores)	61.7	

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>'</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		,

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	Jembers for Th	sic A A		
G. Peracca	Tellibels for Ti	IIS AA		
C. I Cluccu				
A. Langston				
E. Maroni				
AA Category:				
[] Restoration	г 1 х	Litigation	[] 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 tim	e of assessment?
[] ponded/ii	nundated	[] saturated soil, b	out no surface wa	ater X dry
What is the appare	ent hydrologic	regime of the wetla		
				> 0 1 61
		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		[] yes 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	et or X indisting	ct ?
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-gradi	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		Ι		
$D + [C \times (A \times B)^{1/2}]^{1/2} = Attrib$	ute Score	Raw	Final	Final Attribute Score =	
		11.5	47.9	(Raw Score/24)100	47.9
Hydrology					
	ter Source		9		
Hydroperiod or Channe			9		
Hydrologic Co	nnectivity		6		
Attrib	ute Score	Raw	Final	Final Attribute Score =	
Attiib	ate score	24	66.7	(Raw Score/36)100	66.7
Physical Structure					
Structural Patch	Richness		6	6 patch types	
Topographic C	omplexity		6		
A 44milh.	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	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	age of Fin	al Att ri bu	ite Scores		
(<i>G</i>			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		

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

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 Longitude	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 Context							
(A) Aquatic A	rea Con	nectivity	D	3	Avg=2%		
	Alpha.	Numeric					
(B): Percent of AA with Buffer	Α	12			100% with buffer		
(C) 4 D (C) 11(1)	_						
(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 1/2			ribute Score =	
		- A (D A C	7 1	13.4	(Initial Sc	core/24) x 100	55.8
Hydrology							
		er Source	Α	12			
		roperiod	Α	12			
Hydrolo	gic Con	nectivity	Α	12		Ţ	
Initial .	Attribu	te Score				ribute Score =	
				36	(Initial Sc	core/36) x 100	100
Physical Structure	LD 1	n' 1		T _			
Structura			D	3	2 patch ty	pes	
Topogra	phic Co	mplexity	С	6	T' 1 4	., .	
Initial	Attribu	te Score		0		ribute Score =	27.5
D' ' C'				9	(Initial Sc	core/24) x 100	37.5
Biotic Structure	, .			1 2			
Horizontal Interspersion and Z		1	D	3			
Community composition submetric A: Number of Co-dominants	Alpha.	Numeric 6			2 co domi	nant con	
Community composition submetric	C	0			3 co-domi	mant spp.	
B: Percent Non-native	В	9			33% non-r	native snn	
Community Composition submetric					3370 11011 1	ideive spp.	
C: Endemic Species Richness	D	3			0 endemic	spp.	
Plant Community Con		1					
(numeric average				6			
Initial	Attribu	te Score		9		ribute Score = core/24) x 100	37.5
Overall AA Score (Av	erage (of Final	Attribut			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		

PHYSICAL STRUCTURE ATTRIBUTE		Present and likely to have significant
(WITHIN 50 M OF AA)	Present	negative effect on
(WITHIN 50 M OF AA)		
		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	ct Site ID: Fre	sno to Bakersfield	HST				
Asses	ssment Area N	lame: VS300					
Proje	ct Name: Fres	no to Bakersfield H	IST (CMP)	Date (m/d/y)	5	17	12
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	is the apparen	nt hydrologic reg ation □ medi	gime of the we	etland? X short-duration			
Does	the vernal poo	•	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 set la	25 002001	440.2000011			
1	1267	North	35.80388N	119.39008W			
3	1268 1269	South					
4	1209	East West					
5	1270	VVC3t					
6							
	Comments:						

Scoring Sheet: Vernal Pool Systems

AA Name: VS300					(m/d/y) 05/19/2012	
Attributes and Metrics				Numeri	Comments/Scores	
Buffer and Landscape Context						
A) Aquatic Area Connectivity			Α	12	Avg=57.5%	
(B): Percent of AA with	Alpha.	Numeric				
Buffer	Α	12			100% with buffer	
(C): Average Buffer Width	Α	12			Avg=196.9 meters	
(D): Buffer Condition	В	9				
	5 6	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 Attailments Coope				•	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	Swale	Density	Α	12	Avg=68.8 %	
Topogra	phic Co	omplexity	С	6		
T 12 1 A 44 11 4 C	-	•		_	Final Attribute Score =	
Initial Attribute Score				24	(Initial Score/36) x 100	66.7
Biotic Structure					,	
	Alpha.	Numerio				
Plant Community submetric A:						
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			1	
(average of submetrics A-C)				5		
Horizontal Interspersion and Zonatio	n					
			В	9		
Initial Attribute Score					Final Attribute Score =	
			<u> </u>	14	(Initial Score/24) x 100	58.3
Overall AA Score (Average of Final	l Attrib	ute Scor	es)			
			-,		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., 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		
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.		

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							12
Assessi	ment Team	Members for Th	nis AA				
A. Langs	A. Langston G. Peracca						
E. Maro	ni						
	d Category: Natural	1 Constructed	□ Restoration	(Rehabilitation OF	R Enhance	ement)	
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	s the apparen	nt hydrologic reg ation □ medi		etland? 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	
	No.		0.0000000000000000000000000000000000000	440000/05 114			
	5653	North	35º48'01 N	119º23'25 W			
l	5657	South					
l 	5656	East					
5	5654	West					
6							
Comments:,							

Scoring Sheet: Vernal Pool Systems

AA Name: VS301				(m/d/y) 05/15/2012			
Attributes and Metrics				Nume	ric Comments/Scores		
Attributes and Metrics Buffer and Landscape Context							
(A) Aquatic Area Connectivity				12	Avg= 92.9%		
, ,		Numeric					
Buffer	Α	12			100% with buffer		
(C): Average Buffer Width	Α	12			Avg= 250 meters		
(D): Buffer Condition	В	9					
	<i>(</i> D)	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			
	Hyc	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							
Structura	l Patch	Richness	С	6	7 patch types		
Pool and	Swale	Density	Α	12	Avg= 52.5 %		
Topogra	phic Co	mplexity	Α	12			
					Final Attribute Score =		
Initial Attribute Score				30	(Initial Score/36) x 100	83.3	
Biotic Structure							
	Alpha.	Numeric					
Plant Community submetric A:							
Number of Co-dominant species B		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		3			0 endemic spp.		
Plant Community Metric							
(average of submetrics A-C)				5			
Horizontal Interspersion and Zonation							
1			Α	12			
Initial Attribute Score					Final Attribute Score =		
			17		(Initial Score/24) x 100	70.8	
Overall AA Score (Average of Final Attribute Scores			es)				
overall the ocole (inverage of a marrial sale 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	<u>'</u>	•

Basic Information: Vernal Pool Systems

CRAM Site ID: Yang Property (CMP)							
Project Site ID: Fresno to Bakersfield HST							
Assessment Area Name: VS303							
Project Name: Fresno to Bakersfield HST (CMP)	ate (m/d/y)	5	15	12			
Assessment Team Members for This AA							
A. Langston G. Peracca							
E.Maroni							
Wetland Category: X Natural □ Constructed □ Restoration (Rehabilitation OR	Enhance	ment)				
If Created or Restored, does the action encompass:	of the wetland						
What best describes the hydrologic state of the wetl ponded/inundated saturated soil, h	and at the time o		nent? dry				
What is the apparent hydrologic regime of the wetla □ long-duration □ medium-duration X	and? short-duration						
Does the vernal pool system connect with the flood	plain of a nearby	stream?					
Photo Identification Numbers and Description:							
Photo ID Description Latitude	Longitude	1	Datum				
No.							
1 5651 North							
2 5649 South							
3 5652 East							
4 5650 West							
5 6							
Comments:							

Scoring Sheet: Vernal Pool Systems

AA Name: VS303					(m/d/y) 05/15/2012		
Attributes and Metrics				Numerio	Comments/Scores		
Buffer and Landscape Context							
(A) Aquatic Area Connectivity				12	Avg= 95%		
(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					
	5 6	1/2 - 1/2			Final Attribute Score =		
Initial Attribute Score = $A + [Dx]$	(B x 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 =		
Illitial 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	omplexity	С	6			
Turkini Addukin da Carana				•	Final Attribute Score =		
Initial Attribute Score				27	(Initial Score/36) x 100	75.0	
Biotic Structure							
	Alpha.	Numeric					
Plant Community submetric A:							
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						
1			В	9			
Initial Attribute Score					Final Attribute Score =		
				15	5 (Initial Score/24) x 100 6		
Overall AA Score (Average of Final	l Attrib	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 for	r This AA:				
A. Langston					
T. Lim					
Average Bankfull Width: 33 m					
Approximate Length of AA (10	times bankfull width	ı, min 100 m, ma	x 200 m): 200 m	
Upstream Point Latitude:	L	ongitude:			
Downstream Point Latitude:	L	ongitude:			
Wetland Sub-type:					
X Confined	d 🗆 Non-o	confined			
AA Category:					
☐ Restoration ☐ Mitigation ☐	☐ Impacted X Amb	ient X Referen	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 ye immediately following precipitation e water for periods longer than ephemory	ar long, whereas <i>epheme</i> events. <i>Intermittent</i> strea	eral streams condu ams 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	ore (D)		Alpha.	Numeric		
1 , ,		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				
Buffer submetric C:	С	6			Buffer is road berm	
Buffer Condition Raw Attribute So			D)1/211/2		Final Attribute Score =	
(use numerical valu		. ,	, -	18	(Raw Score/24) x 100	75.0
Attribute 2: Hydrology			8 /		(114111 00010) 2 1) 11 100	
			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	ım of n	umeric	scores	24	Final Attribute Score = (Raw Score/36) x 100	66.7
Attribute 3: Physical Struct	ure			•	,	<u>. </u>
			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	on (base	d on sub	-metrics	1-C)		
	Alpha.	Numeric			21	
Plant Community submetric A: 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		1	17% invasive spp.	
Plant Co						
(average of submetrics A-C round	led to nea	rest whole	<u> </u>	8		
Horizontal Interspersion			С	6		
Vertical Biotic Structure			С	6		
Raw Attribute Score = su	ım of n	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 Ranc	h				
Project Site ID: FB HST CMP					
Assessment Area Name: R402					
Project Name: FB HST Mitigation	n 1	Date (m/d/y)	01	04	13
Assessment Team Members fo	or 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	ed 🗆 Non-	confined			
AA Category:					
☐ Restoration ☐ Mitigation	☐ Impacted X Amb	ient X Referer	nce \square	Training	
☐ Other:					
Did the river/stream have flow	ving water at the tin	ne of the assessi	ment? [⊐ yes x	no
What is the apparent hydrolog	ric flow regime of th	e reach you are	assessi	ng?	
The hydrologic flow regime of a stree Perennial streams conduct water all y immediately following precipitation water for periods longer than ephen	ear long, whereas epheme events. Intermittent stream	eral streams conductions are dry for par	ct water of t of the y	only during rear, but co	and anduct
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			
Aquatic Afea Abundance Score (D)			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 = 7 meters	
Average Buffer Width	D	3				
Buffer submetric C:	С	6			Buffer is road berm	
Buffer Condition Raw Attribute S			V D)½1½		Final Attribute Score =	
(use numerical valu		. ,	, -	15	(Raw Score/24) x 100	62.5
Attribute 2: Hydrology			0 /		(, ., .,	
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		T
Raw Attribute Score = s	um of n	umeric	scores	12	Final Attribute Score = (Raw Score/24) x 100	50.0
Attribute 4: Biotic Structure						
Plant Community Composition			-metrics /	1-C)		
Plant Community submetric A:	Alpha.	Numeric			3 layers	
Number of plant layers	В	9			5 layers	
Plant Community submetric B:						
Number of Co-dominant species	С	6			5 co-dominant spp.	
Plant Community submetric C:		_				
Percent Invasion	В	9		l	20% invasive spp.	
Plant Community Composition (average of submetrics A-C rounded to nearest whole				8		
Horizontal Interspersion			В	9		
Vertical Biotic Structure			В	9		
Raw Attribute Score = sum of numeric s			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



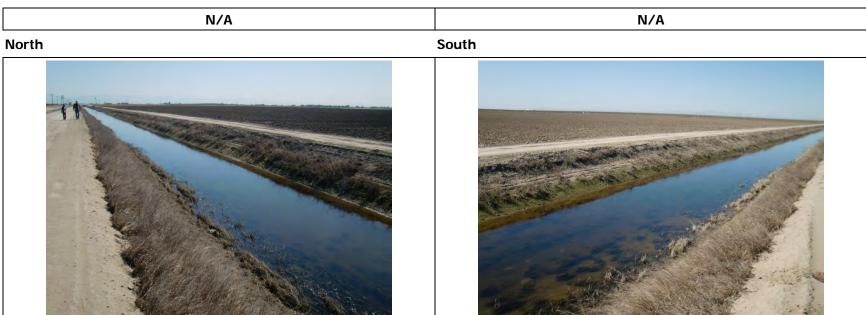


Northeast





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



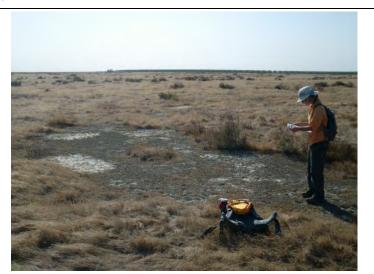






North South









North South





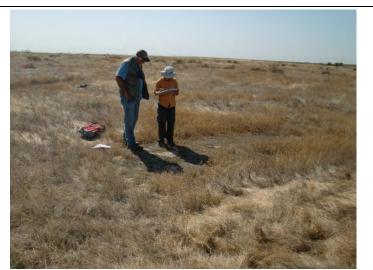
Assessment Area V115A





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



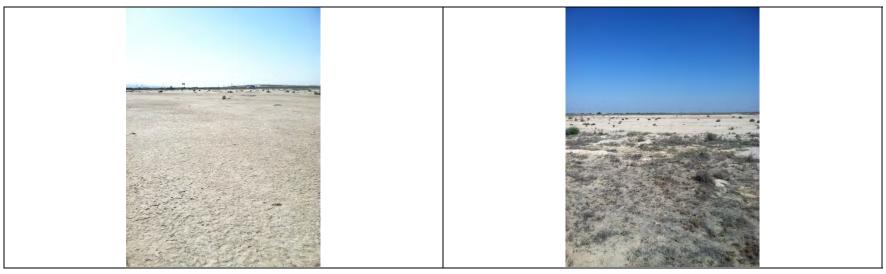


North South





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





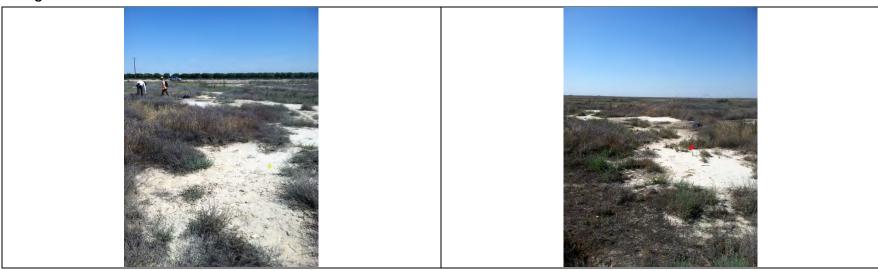
North South





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

							Ass	essn	nent	Area	s (no	n-bo	ld X=	-stre	ssor	pres	_	_	_	_	_	_	_	effect	n AA	: bol	d X=s	tress	or ha	ns sin	nific	anti	negati	ve e	ffect	on A	4A)					
							 				J (110	50	la X-	-3110		pres					T T						X=3	1 3	<u> </u>	13 316	,,,,,,					1	171)					
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																					Х						х				Х							Х		Х	Х
	discharges Flow diversions/ unnatural inflows																		х																							
	Dams																									Х										Х						
₽ &	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								Х	Х	Х	Х	Х	X		Х					Х	Х	Х	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	Χ	Χ	Χ	Χ	Х				Х						Χ		Х								Х	Х	Χ	X				X								
onte	Plowing/ disking																																		Х	Χ			Χ	Χ	Χ	
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																									x						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	tive	effec	on	AA;	bold	X=st	tressor	has	signif	icant	nega	ative	effec	t on <i>l</i>	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	Х	Х	Х													Χ	Х								X	>		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 <i>i</i>	Removal of woody debris																														х	х										
Biotic Structure /	Treatment of non-native and nuisance plant species	x																										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	_	_	_	_	_	ave a	_	_	_		\ A ; I	bold X=s	stres	ssor h	as sic	nific	cant	nega	tive	effec	t on	AA)					
											Ì					· 										Ť																
Attribute	Stressor	V62A	765	070	V72	V74	775	V76A	N76D	V104	V114	V115A	VS97A	VS99A	VS104A	VS107A	VS112	VS114A	D147	D203	D204	D205	D206	D212	D213	D214	R8 R63A	R66	R71A	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 Si (with	Lack of treatment of invasive plants							Х																																		
	Urban residential																																Х	Х								
	Industrial/co mmercial																				Х	Х	Χ										Х	Х								
	Military training/air traffic																																									
	Dams																										х															
	Dryland farming			Х	Χ	Х	Х	Х	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	Х	Х	Х
ontex of AA	Commercial																																					Х				
o M o	feedlots Dairies																																									
dsca _l in 50	Ranching																																					Х				
d Lan (with	Transporta- tion corridor	Х	Х							Х	Х	Х	Х	Χ	Х	Х	Х	Χ	Х							х	х	х		х	Х	Х	Х	Х	Х				Χ	Χ	Χ	
	Rangeland																																									
Buffer	Sports fields and urban parklands																																х	Х								
	Passive																																Х	Х								
	recreation Active																																^									
	recreation																										Х															Х
	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
	nyms:	_	М -	- meter	·(c)		· <u> </u>	· <u> </u>		· <u> </u>		_	· <u> </u>	· <u> </u>	_			· <u> </u>				_				_				· <u> </u>		· <u> </u>										

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	cant neg	ative eff	ect on A	A)
Attribute			Buer	na Vista I	Dairy		Da	avis	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																		
oute AA)	Flow obstructions						Х	Х											
Attril M of	Weir/drop structure, tide gates																		
Hydrology Attribute (within 50 M of AA)	Dredged inlet/ channel																		
lydr	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
 e Att	Plowing/disking										Х	Х						Х	Х
cture 0 M	Resource extraction																		
Stru Jin 5	Vegetation manage-ment																		
sical (with	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																		
İ	Excessive human visitation																		
συ	Predation and habitat destruction by non-native vertebrates																		
Biotic Structure Attribute (within 50 M of AA)	Tree cutting/ sapling removal																		
e Ati	Removal of woody debris																		
ictur 50 N	Treatment of non-native and nuisance plant species																		
Stru	Pesticide application or vector control																		
iotic (wi	Biological resource extraction or stocking																		
Δ.	Excessive organic debris in matrix																		
I	Lack of vegetation management to conserve natural resources																		
İ	Lack of treatment of invasive plants																		
·	Urban residential												Х						
1	Industrial/commercial																		
1	Military training/air traffic																		
İ	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					
ar an	Rangeland																		
Buffe	Sports fields and urban parklands																		
<u></u>	Passive recreation						Х	Х											
I	Active recreation	Х	Х																
I	Physical resource extraction																		
	Biological resource extraction																		
	TOTAL	3	3	2	2	2	3	3	2	2	6	6	3	1	1	1	0	7	9

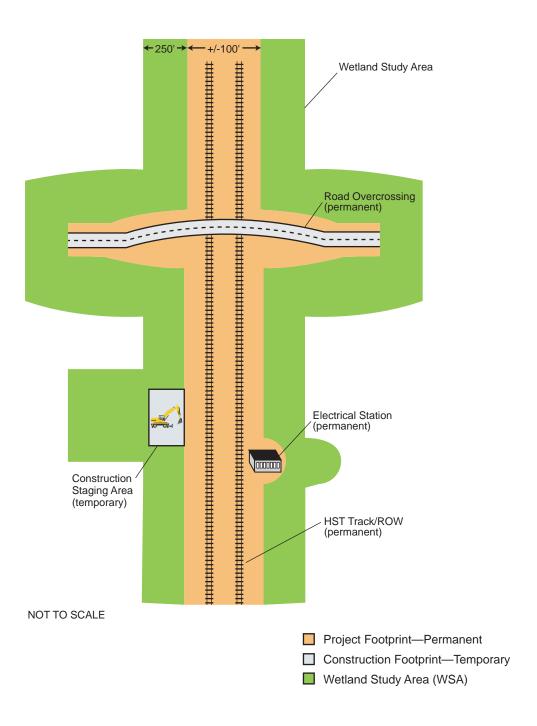
AA assessment area meter(s)



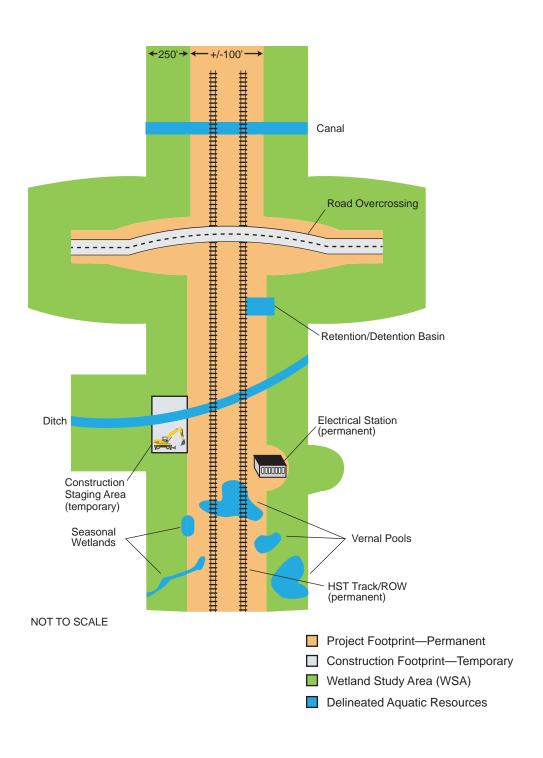
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Appendix B Impact Evaluation Schematics

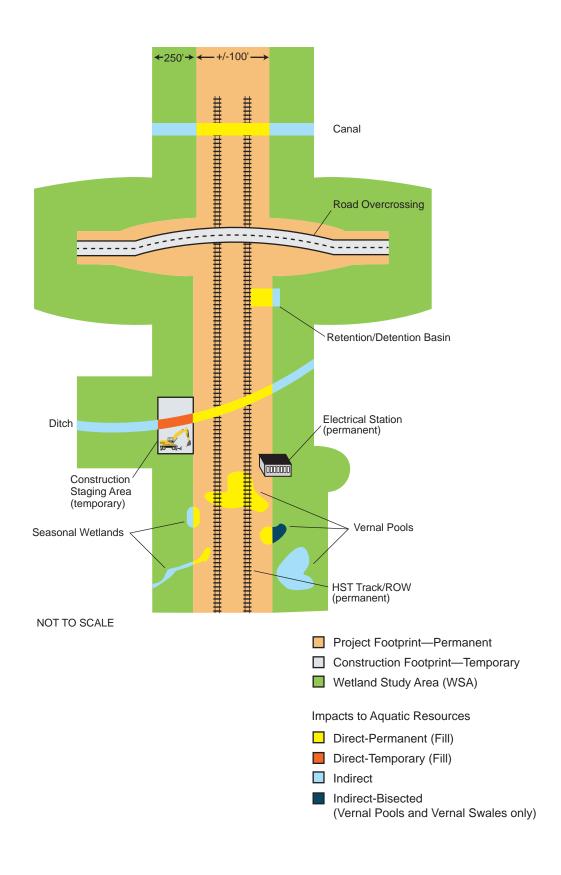
Project and Construction Footprint



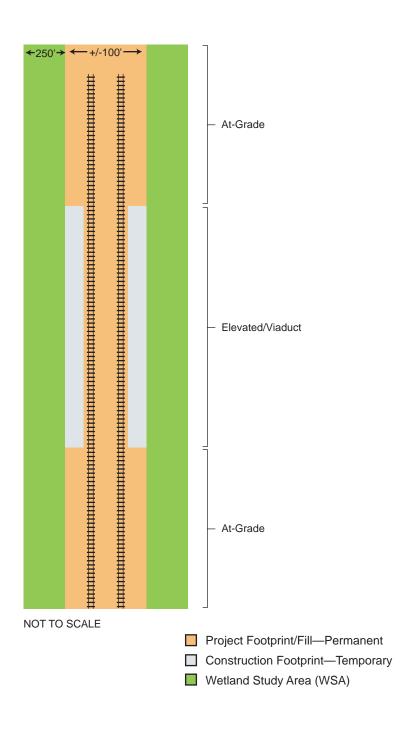
Wetland Delineation



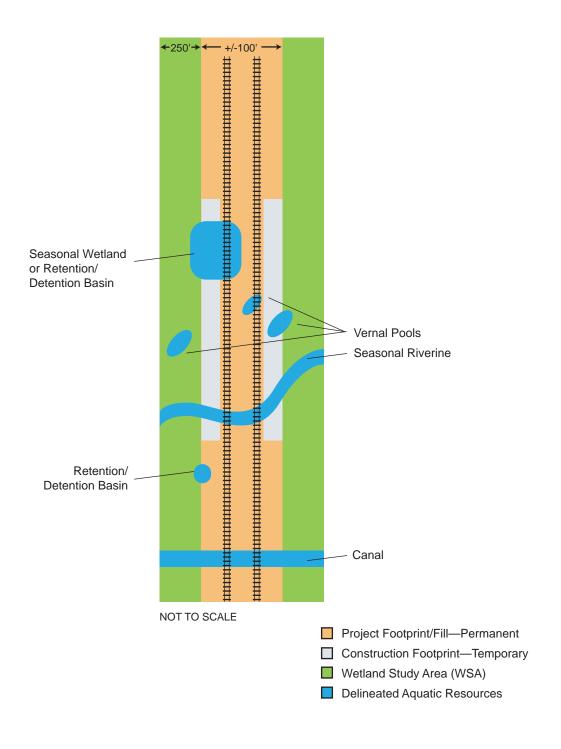
Construction and Project Impacts



At-grade vs. Elevated



Wetland Delineation



Construction and Project Impacts

