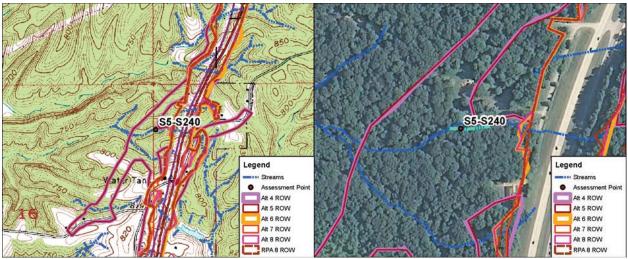
Section 5—Final Envir onmental Impact Statement

APPENDIX M DR \FT STREAM ASSES \(\) MENT REPORT

APPENDIX B	Stream Site Reports and
APPENDIX A	Stream Impacts and Stream Relocation engths by Alternative
TECHNICAL	EPORT APPENDICES



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Indian Ck

Quarter: NW Range: R1W

Watershed: 05120202010 Channelized/Type: No/Natural **Stream Type:** Intermittent **Evaluation Type:** HHEI

Evaluation Score: 43 Legal Drain (Y/N): Ν

UTME: 1776752 ft **UTMN:** 14274745 ft

USGS Quadrangle: Modesto Section: 15 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.5 feet OHWM Depth: 0.4 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.01 sq mi **Predominant Sub:** Gravel/cand

Stream S5-S240 –Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	211	0.01	1.12
5	211	0.01	1.12
6	0	0.00	0.00
7	0	0.00	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S240 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and clay. There is a wide riparian corridor consisting of mature forest on both banks of this stream's floodplain. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S240 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

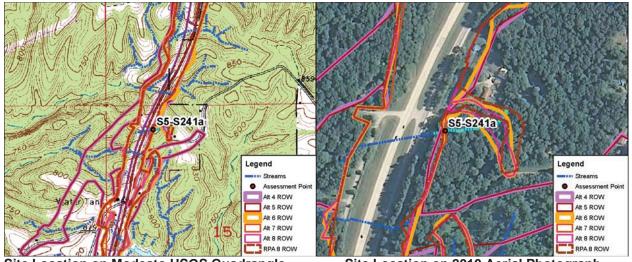


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S240 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.30695 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51801) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] D LEAF PACK/WOODY DEBRIS [3 pts] 10% 0% 0% FINE DETRITUS [3 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 30%	Max = 4
GRAVEL (2 64 mm) [9 pts] 40% MUCK [0 pts] 0%	13
SAND (<2 mm) [6 pts] 20% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check <i>ONLY</i> one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	25
✓ > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 14	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.80	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): ### 0.80 This information must also be completed RIPARIAN WIDTH ### ELOODPLAIN QUALITY L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): ### D.80 This information must also be completed ### RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) ✓ Wide >10m Moderate 5 10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 m I RIPARIAN WIDTH L R (Most Predominant per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10 m I manuare Forest, Shrub or Old I manuare Forest, Shrub or Old I was predominant per Bank) Urban or Industrial Field	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Wide >10m Wide >10m Wide >10m Wide >10m Woderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS **1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] >1.0 m (<=3' 3") [5 pts] **2	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 COMMENTS 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.5' / 0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 COMMENTS 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30

ADDITIONAL STREAM	M INFORMATION (This Information Must Als	o be Completed):		\$5-\$240
QHEI PERF	ORMED? Yes No QHEI Score	(If Yes, Attac	h Completed QHEI Form	n)
DOWNSTRI	EAM DESIGNATED USE(S)			
WWH Name: Indi	an Creek		Distance from Evaluate	ed Stream
CWH Name: _			Distance from Evaluate	d Stream _
EWH Name:			Distance from Evaluate	d Stream _
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE E	NTIRE WATERSHED	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	me: Modesto	NRCS Soil Map Pa	ge: 8 NRCS Soil	Map Stream Order
County: Monroe	Town	ship / City: Washing	gton	
MISCELLAN	NEOUS			
Base Flow Conditions	? (Y/N):_N _ Date of last precipitation:_	05/10/06	Quantity: 0.89	
Photograph Informatio	n:			
Elevated Turbidity? (Y	/N): N Canopy (% open): 10	%		
Were samples collected	ed for water chemistry? (Y/N): _N (Note la	ıb sample no. or id. ar	nd attach results) Lab Nu	mber:
	emp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmł	nos/cm)
Is the sampling reach	representative of the stream (Y/N) Y If not	t, please explain:		
Additional comments/o	description of pollution impacts:			
BIOTIC EV	ALUATION			
Performed? (Y/N): _N	(If Yes, Record all observations. Vouch	er collections optional.	NOTE: all voucher sampl	es must be labeled with the site
	ID number. Include appropriate field dat	a sheets from the Prim	nary Headwater Habitat As	sessment Manual)
Fish Observed? (Y/N)	Voucher? (Y/N) Salamanders 0	Observed? (Y/N)	Voucher? (Y/N)	
Frogs or Tadpoles Ob	, ,	atic Macroinvertebrate	_ ` ′	Voucher? (Y/N)
Comments Regarding	Biology:			
-				
DRAWI	NG AND NARRATIVE DESCRIPTION	OF STREAM RE	EACH (This <u>must</u> b	e completed):
Include importa	int landmarks and other features of interest fo	r site evaluation and	l a narrative description	of the stream's location
_				
FLOW	See Stream Assessment F	orm		
	S5-S240 for site topogra	aphic map,		
	aerial photograph, and	resource ph	notographs	

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Indian Ck

Quarter: NW Range: R1W Watershed: 05120202010

Channelized/Type: No/Natural **Stream Type:** Ephemeral **Evaluation Type:** HHEI

Evaluation Score: 50 Legal Drain (Y/N): Ν

UTME: 1777684 ft **UTMN:** 14275193 ft

USGS Quadrangle: Modesto Section: 15 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.0 feet OHWM Depth: 0.2 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.01 sq mi **Predominant Sub:** Gravel/sand

Stream S5-S241a – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	40	0.01	0.09
5	41	0.01	0.10
6	197	0.01	0.78
7	71	0.01	0.20
8	146	0.01	0.49
RPA 8	117	0.01	0.52

Description of Potential Impact:

Impacts to S5-S241a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and sand. There is a wide riparian corridor with the adjacent floodplain consisting of mature forests on both banks of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S241a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



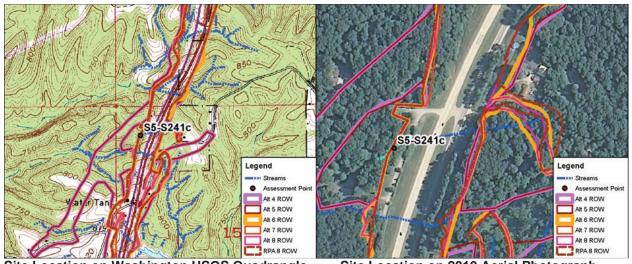
	50	
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SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S241a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.30817 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51471) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts]	20
SAND (<2 mm) [6 pts]	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	4.5
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 8	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
21111 2 21 4 2 21	
COMMENTS OHW - 2.0' / 0.2' AVERAGE BANKFULL WIDTH (meters): 1.25	15
COMMENTS OHW - 2.0' / 0.2' AVERAGE BANKFULL WIDTH (meters): 1.25	15
This information must also be completed	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}NOTE: River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\$	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m ✓ Mature Forest, Wetland Conservation Tillage	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide >10m Moderate 5 10m Moderate 5 10m Urban or Industrial	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5 10m This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Moderate 5 10m Moderate 5 10m Urban or Industrial	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V V Wide >10m V Mature Forest, Wetland Urban or Industrial Residential, Park, New Field Open Pasture, Row Completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V V Wide >10m V Mature Forest, Shrub or Old Urban or Industrial Residential, Park, New Field Mining or Construction	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide >10m Mature Forest, Wetland Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Cite	тор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream (R)	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH Conservation Tillage	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): This information must also be completed NOTE: River Left (L) and Right (R) as looking downstream of the completed None Relidential (L) and Right (R) as looking downstream of the completed Note: Rever Left (L) and Right (R) as looking downstream of the completed Note: Relidential (L) and Right (R) as looking downstream of the completed Conservation Tillage Immature Forest, Wetland Urban or Industrial Open Pasture, Row Completed None Completed Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Open Pasture, Row Completed None Completed Conservation Tillage Immature Forest, Wetland Co	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream & RIPARIAN WIDTH EL R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS This information must also be completed NOTE: River Left (L) and Right (R) as looking downstream & None Residential (R) and Right (R) as looking downstream & None Residential (Most Predominant per Bank) L R (Most Predominant per Bank)	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream → RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0	ор
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as looking downstream And Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Riper Left (L) and Right (R) as looking downstream And Riper Left (L) and Right (R) as looking downstream And Riper Left (L) an	rop t)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) V WWH Name: Indian Creek CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 8 NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N):_N _ Date of last precipitation: 05/10/06 _ Quantity: 0.89
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 40%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:
Performed? (Y/N):N
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form S5-S241a for site topographic map, aerial photograph, and resource photographs

Save as pdf





Site Location on Washington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Washington

Stream Name:Unnamed Trib. Indian CreekSection:15Quarter:NWTownship:T10N

Range: R1W IDEM 303(d) List: N/A Watershed: 05120202010 OHWM Width: 5.5 feet Channelized/Type: No/Natural OHWM Depth: 0.5 feet Ephemeral **USCOE** Jurisdiction: **Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 45 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Sand/gravel

UTME: 1777215 ft **UTMN**: 14275090 ft

Stream S5-S241c – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	41	0.01	0.17
5	39	0.01	0.17
6	39	0.01	0.17
7	39	0.01	0.17
8	39	0.01	0.17
RPA 8	39	0.01	0.17

Description of Potential Impact:

Impacts to S5-S241c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of sand and gravel. There is a wide riparian corridor consisting of mature forest on both banks of the adjacent floodplain area. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S241c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



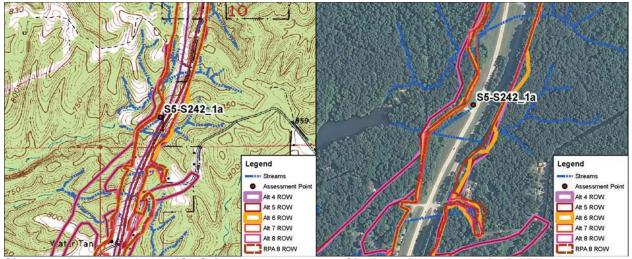
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S241c RIVER BASIN White River DRAINAGE AREA (mi²	0.01
LENGTH OF STREAM REACH (ft) 145 LAT. 39.30789 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51637) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for In	structions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	ECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	, UUEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 5% SILT [3 pt] 15%	Points
BOULDER (>256 mm) [16 pts]	Substrate
COBBLE (65 256 mm) [12 pts] 10% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2 64 mm) [9 pts] 25% MUCK [0 pts] 0%	20
SAND (<2 mm) [6 pts] 45% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
▶ 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	- Davided
	Bankfull
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' AVERAGE BANKFULL WIDTH (meters): 1.68	Width Max=30
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 m (<	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row	Width Max=30 20 Crop
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 \text{ m (<=3' 3") [5 pts]} \) \(\leq 1.0 m (<	Width Max=30 20 Crop
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Vide >10m	Width Max=30 20 Crop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5 10m Narrow <5m None None None COMMENTS RIPARIAN (At Time of Evaluation) (Check ONLY one box): Stream Flowing AVERAGE BANKFULL WIDTH (meters): 1.68 AVERAGE BANKFULL W	Width Max=30 20 Crop
Solution	Width Max=30 20 Crop
Source S	Width Max=30 20 Crop
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5.5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 20 Crop
Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30 20 Crop
Sinuosity (Number of bends per 61 m (200 ft) of channel)	Width Max=30 20 Crop on ent)

ADDITIONAL STREAM INFORMATION (This Information Must Also be	S5-S241c
QHEI PERFORMED? Yes Mo QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Indian Creek	Distance from Evaluated Stream
CWH Name:	
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRI	WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NR	CS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township /	City: Washington
MISCELLANEOUS	
	/13/11 Quantity: 0.25
Base Flow conditions: (174) Bate of last precipitation	Quantity
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 15%	
Were samples collected for water chemistry? (Y/N): Note lab same	nple no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, plea	se explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher coll	ections optional. NOTE: all voucher samples must be labeled with the site
	ets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Obser Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic M	ved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	IV .
DRAWING AND NARRATIVE DESCRIPTION OF	STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site	evaluation and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S241c for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Score: 12 Legal Drain (Y/N): N

Evaluation Type:

UTME: 1777692 ft **UTMN**: 14276324 ft

HHEI

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.2 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
Watershed Area:	0.01 can

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S242_1a – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	76	0.01	0.00	
5	76	0.01	0.00	
6	76	0.01	0.00	
7	76	0.01	0.00	
8	76	0.01	0.00	
RPA 8	76	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S242_1a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located adjacent to SR 37. There is no riparian buffer associated with this artificial channel. The floodplain consists of entirely of existing maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S242_1a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

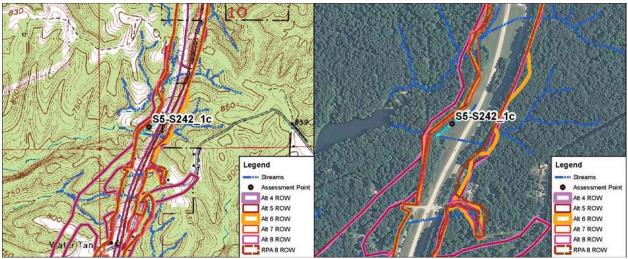


SITE NAME/LOCATION 11-69 Section 5	
SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S242_1a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ff) 75 LAT. 39.31127 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51371) (Concrete Gutter-Modified CI	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2 64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ 100% ☐ 1	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 Check TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) U	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m NOTE: River Left (L) L R (Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5 10m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Narrow <5m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (< 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFUL WIDTH (meters): AVERAGE BANKFULL	Width Max=30
AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.36	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (< 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): OJ6 RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Another Loop Lain Quality OH (Per Bank) Nature Forest, Wetland Oher Forest, Wetland Oher Pasture, Row Conservation Tillage Immature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field Open Pasture, Row Conservation Open Pasture, Row Conse	Width Max=30 5



See Stream Assessment Form S5-S242_1a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010 Channelized/Type: Yes/Concrete Gutter **Stream Type:** Ephemeral **Evaluation Type:** HHEI

Evaluation Score: 12 Legal Drain (Y/N): Ν

UTMN: 14276148 ft **UTME:** 1777730 ft

Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet USCOE Jurisdiction: Yes IDEM Jurisdiction: Yes Watershed Area: 0.01 sq m	USGS Quadrangle:	Modesto
IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet USCOE Jurisdiction: Yes IDEM Jurisdiction: Yes	Section:	10
OHWM Width: 1.2 feet OHWM Depth: 0.2 feet USCOE Jurisdiction: Yes IDEM Jurisdiction: Yes	Township:	T10N
OHWM Depth: 0.2 feet USCOE Jurisdiction: Yes IDEM Jurisdiction: Yes	IDEM 303(d) List:	N/A
USCOE Jurisdiction: Yes IDEM Jurisdiction: Yes	OHWM Width:	1.2 feet
IDEM Jurisdiction: Yes	OHWM Depth:	0.2 feet
	USCOE Jurisdiction:	Yes
Watershed Area: 0.01 sq m	IDEM Jurisdiction:	Yes
	Watershed Area:	0.01 sq m

ni **Predominant Sub:** Artificial

Stream S5-S242_1c – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	416	0.01	0.48	
5	416	0.01	0.48	
6	416	0.01	0.41	
7	416	0.01	0.24	
8	416	0.01	0.41	
RPA 8	416	0.01	0.41	

Description of Potential Impact:

Impacts to S5-S242_1c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located adjacent to SR 37. There is no riparian buffer associated with the left bank and a wide riparian buffer along the right bank of this artificial channel. The floodplain consists of new field along the left adjacent floodplain and immature forest along the right floodplain. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S242 1c are on the second page of this form.



Photograph Taken Upstream



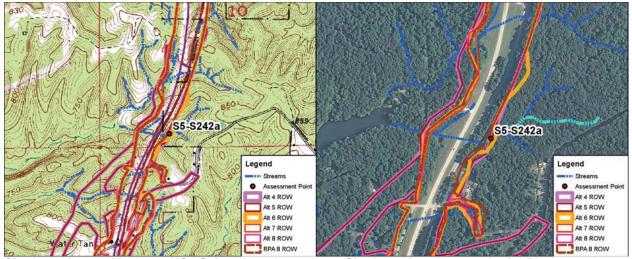
Photograph Taken Downstream



LEO Section F		
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER S5-S242_1c	RIVER BASIN White River DRAINAGE AREA (mi²) 0.01	
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31		
	MENTS (Long: -86.51453) (Concrete Gutter-Modified Class I	1)
NOTE: Complete All Items On This Form - Refer to	"Field Evaluation Manual for Ohio's PHWH Streams" for Instruction	ions
STREAM CHANNEL NONE / NATURAL CHAN MODIFICATIONS:	NEL ☐ RECOVERED ☐ RECOVERING ☑ RECENT OR NO RECOVE	ERY
SUBSTRATE (Estimate percent of every type of sul	bstrate present. Check ONLY two predominant substrate TYPE boxes	
	types found (Max of 8). Final metric score is sum of boxes A & B.	ΗΗΕΊ
TYPE PERCENT	TERCENT D	/letri Point
BLDR SLABS [16 pts] 0% BOULDER (>256 mm) [16 pts] 0%	SILT [3 pt] 0% 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	OIIII
BOULDER (>256 mm) [16 pts] 0% BEDROCK [16 pt] 0%		ubstrat
COBBLE (65 256 mm) [12 pts] 0%	CLAY or HARDPAN [0 pt]	1ax = 4
GRAVEL (2 64 mm) [9 pts] 0%	□ □ MUCK [0 pts] 0%	_
SAND (<2 mm) [6 pts] 0%	ARTIFICIAL [3 pts]	7
Total of Percentages of	(A) Substrate Percentage 1009/	
Bldr Slabs, Boulder, Cobble, Bedrock	Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPE	S: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool	I depth within the 61 meter (200 ft) evaluation reach at the time of	ool Dep
evaluation. Avoid plunge pools from road culverts or s	• • • • • • • • • • • • • • • • • • • •	Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	
> 22.5 30 cm [30 pts]	< 5 cm [5 pts]	•
> 10 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
2 DANK FILL WIDTH (Measured as the swarps of 2	A macauramenta) (Chaele ONII V and have)	Ponkfu
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]		Bankfu Width
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] \(\sqrt{1.0 m} \) (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2'	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] \(\) \	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This RIPARIAN ZONE AND FLOODPLAIN QUALIT	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) L R (Per Bank)	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): information must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This RIPARIAN ZONE AND FLOODPLAIN QUALIT RIPARIAN WIDTH L R (Per Bank) Wide >10m	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This RIPARIAN ZONE AND FLOODPLAIN QUALIT RIPARIAN WIDTH L R (Per Bank) L R (Per Bank) Wide > 10m Moderate 5 10m	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): information must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This RIPARIAN ZONE AND FLOODPLAIN QUALIT RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ✓ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): O.36 Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This RIPARIAN ZONE AND FLOODPLAIN QUALIT RIPARIAN WIDTH L R (Per Bank)	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ✓ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): O.36 Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Open Pasture, Row Crop	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This RIPARIAN ZONE AND FLOODPLAIN QUALIT RIPARIAN WIDTH L R (Per Bank)	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ✓ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): O.36 Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This RIPARIAN ZONE AND FLOODPLAIN QUALIT RIPARIAN WIDTH L R (Per Bank)	AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Immature Fore	Width Max=30
> 4.0 meters (> 13') [30 pts]	AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Immature Fore	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This RIPARIAN ZONE AND FLOODPLAIN QUALIT RIPARIAN WIDTH L R (Per Bank)	AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This RIPARIAN ZONE AND FLOODPLAIN QUALITY	AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS	AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Immature Fore	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Chesstream Flowing Subsurface flow with isolated pools (Interstitial)	AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Immature Fore	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200	AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Immature Fore	Width Max=30
> 4.0 meters (> 13') [30 pts]	AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) ft) of channel) (Check ONLY one box): 2.0 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Chesstream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 None 0.5 STREAM GRADIENT ESTIMATE	AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): Sinformation must also be completed TY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ AIN QUALITY (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) ft) of channel) (Check ONLY one box): 2.0 3.0	5

Save as pdf

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010 Channelized/Type: No/Natural Ephemeral **Stream Type: Evaluation Type:** HHEI 39

Evaluation Score: Legal Drain (Y/N): Ν

UTME: 1778148ft **UTMN:** 14275981 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 5.0 feet OHWM Depth: 0.3 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.08 sq mi **Predominant Sub:** Gravel/sand

Stream S5-S242a – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	118	0.01	0.31	
5	115	0.01	0.29	
6	174	0.02	0.39	
7	36	0.01	0.03	
8	36	0.01	0.03	
RPA 8	36	0.01	0.03	

Description of Potential Impact:

Impacts to S5-S242a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and sand. There is a wide riparian corridor consisting of mature forest along both banks, as well as into the floodplain of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S242a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



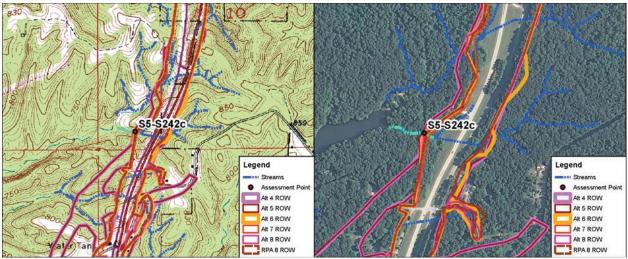
39

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S242a RIVER BASIN White River DRAINAGE AREA (mi²)	0.08
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31033 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51306) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 20%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts] 40% MUCK [0 pts] 0%	19
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.3' AVERAGE BANKFULL WIDTH (meters): 1.52 This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH EL R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.3' AVERAGE BANKFULL WIDTH (meters): 1.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) V V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Immature Forest Shrub or Old I S (Most Predominant per Bank) I R (Conservation Tillage I S (Most Predominant per Bank) I R (Conservation Tilla	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.3' AVERAGE BANKFULL WIDTH (meters): 1.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) V V Wide > 10m V V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field Wide Immature Forest, Shrub or Old Urban or Industrial Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Conservation Tillage Conservation	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
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> 4.0 meters (> 13') [30 pts]	Width Max=30
3.0 m eters (> 13') [30 pts] 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3.0 m - 4.0 m (> 9' 7" - 4' 8") [20 pts] 4VERAGE BANKFULL WIDTH (meters): 1.52	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Le	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Le	Width Max=30 20 rop n tt)

ADDITIONAL STREAM INFORMATION (This In	oformation Must Also be Completed):
QHEI PERFORMED? Yes V N	lo QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S WWH Name: Indian Creek CWH Name:	
MAPPING: ATTACH COPIES OF MAP	S, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe	Township / City: Washington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of	ast precipitation: 10/13/11 Quantity: 0.25
Photograph Information:	
Elevated Turbidity? (Y/N): N Canop	oy (% open):
Were samples collected for water chemistry? (Y/	(N): _N (Note lab sample no. or id. and attach results) Lab Number:
	ed Oxygen (mg/l)pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the strea	m (Y/N) If not, please explain:
Additional comments/description of pollution imp	acts:
ID number. Include Voucher? (Y/N) Voucher? (Y/N)	observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site de appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) N Salamanders Observed? (Y/N) N Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N)
DRAWING AND NARRATIV	E DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
	eatures of interest for site evaluation and a narrative description of the stream's location
See Stream As	
	site topographic map, raph, and resource photographs

Save as pdf

Reset Form



Site Location on 2010 Aerial Photograph

Modesto

0.30

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 52

Legal Drain (Y/N): N **UTMN:** 14276068 ft

Section: 10 Township: T10N IDEM 303(d) List: N/A **OHWM Width:** 6.9 feet OHWM Depth: 1.1 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes 0.08 sq mi Watershed Area:

USGS Quadrangle:

Watershed Area: 0.08 sq mi
Predominant Sub: Gravel/cobble

Stream S5-S242c – Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	116	0.02	0.51	
5	136	0.02	0.59	
6	92	0.01	0.36	
7	49	0.01	0.17	
8	94	0.01	0.35	

0.01

Description of Potential Impact:

RPA8

Impacts to S5-S242c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and cobble. There is a wide riparian corridor consisting of mature forest along both banks, as well as into the floodplain of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S242c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

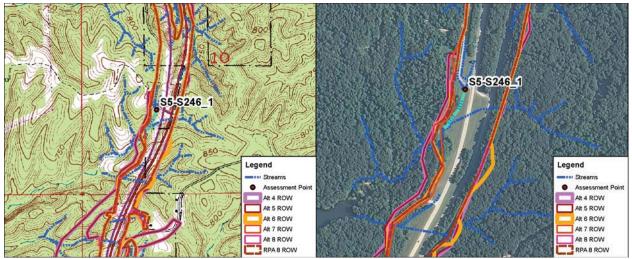


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SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S242c RIVER BASIN White River DRAINAGE AREA (mi²)	80.0
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31058 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51545) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] 0% SILT [3 pt] 10%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] LEAF PACK/WOODY DEBRIS [3 pts] 5% 5%	Substrat
COBBLE (65 256 mm) [12 pts] 25% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2 64 mm) [9 pts] 50% MUCK [0 pts] 0%	27
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 3	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 6.9' / 1.1' AVERAGE BANKFULL WIDTH (meters): 2.50	20
	20
	20
This information must also be completed	20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	20
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	20
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m ✓ Mature Forest, Wetland Conservation Tillage	20
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) V V Wide >10m Moderate 5 10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Urban or Industrial	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5 10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R Mature Forest, Wetland Urban or Industrial	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Conservation Tillage Immature Forest, Shrub or Old Field Residential, Park, New Field Mining or Construction	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None Residential, Park, New Field Fenced Pasture None RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Conservation Tillage) Urban or Industrial Open Pasture, Row Company Construction COMMENTS	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Conservation Tillage Immature Forest, Shrub or Old Field Residential, Park, New Field Mining or Construction	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field Narrow <5m None Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) NOTE: River Left (L) and Right (R) as looking downstream And Right (R) a	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predomin	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A L R (Most Predominant per Bank) L R (Most Pre	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predomin	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FROM Residential Per Bank) Robert Forest, Wetland Immature Forest, Shrub or Old Immature Forest,	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank)	rop

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes	No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED WWH Name: Indian Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF	F MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: 8 NRCS Soil Map Stream Order 1
County: Monroe	Township / City: Washington
` _ 	ate of last precipitation: 05/10/06 Quantity: 0.89 / 191 Downstream / 192 Right bank / 193 Left bank
N	Canopy (% open): 20%
Is the sampling reach representative of the Additional comments/description of pollutions and the Additional Comments (Participation of Pollutions and Participation of Pollutions (Participation of Pollutions and Participation of Pollutions (Participation of Participation of Participation of Participation of Participation of Participation (Participation of Participation of Part	e stream (Y/N) If not, please explain: on impacts: cord all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Include important landmarks and of stream S5-S242c fi	ATIVE DESCRIPTION OF STREAM REACH (This must be completed): other features of interest for site evaluation and a narrative description of the stream's location a Assessment Form for site topographic map, otograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010 Channelized/Type: Yes/Concrete Gutter

Stream Type: Ephemeral **Evaluation Type:** HHEI

Evaluation Score: 12 Legal Drain (Y/N): Ν

UTME: 1778249 ft **UTMN:** 14277449 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.1 feet OHWM Depth: 0.2 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.01 sq mi **Predominant Sub:** Artificial

Stream S5-S246_1 – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	428	0.02	0.26	
5	428	0.02	0.26	
6	428	0.02	0.25	
7	428	0.02	0.22	
8	428	0.02	0.25	
RPA 8	428	0.02	0.25	

Description of Potential Impact:

Impacts to S5-S246 1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter beginning along West Burma Road and following SR 37 to S5-S246c. There is no riparian buffer associated with this artificial channel on the left bank and a wide buffer on the right. The floodplain consists of transportation along the left floodplain and immature forest along the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246_1 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



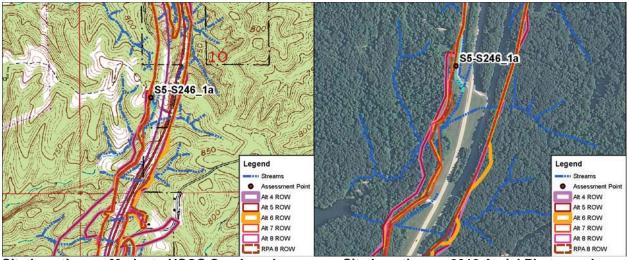
Primary Headwater Habitat Evaluation Form

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HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S246_1 DRAINAGE AREA (mi²) 0.01 SITE NUMBER 200 LAT. 39.31436 LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE COMMENTS (Long: -86.51267) (Concrete Gutter-Modified Class I) DATE **04/26/12** KSS/DEW SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65 256 mm) [12 pts] CLAY or HARDPAN [0 pt] 0% 0% GRAVEL (2 64 mm) [9 pts] MUCK [0 pts] 0% 100% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 1 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 30 cm [30 pts] < 5 cm [5 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): Width > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Max=30> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5 10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE ✓ Moderate to Severe Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

		_		S5-S246 1
ADDITIONAL STREAM	M INFORMATION (This Information	Must Also be Completed):		_
QHEI PERF	ORMED? Yes No QHEIS	core (If Yes, Atta	ach Completed QHEI Form)	
DOWNSTR	EAM DESIGNATED USE(S)			
WWH Name: Indi	• • •		Distance from Evaluated Strear	n
CWH Name: _			Distance from Evaluated Stream	1
EWH Name:			Distance from Evaluated Stream	ı
MAPPING:	ATTACH COPIES OF MAPS, INCLUDI	NG THE <u>ENTIRE</u> WATERSHEE	DAREA. CLEARLY MARK THE SIT	E LOCATION
USGS Quadrangle Na	me: Modesto	NRCS Soil Map F	Page: NRCS Soil Map Str	eam Order
County: Monroe		Township / City: Washi	ngton	
MISCELLA	NEOUS			
Base Flow Conditions	? (Y/N): Pate of last precipit	ation: 04/24/12	Quantity: 0.15	
Photograph Informatio				
Elevated Turbidity? (Y	/N): _ N Canopy (% open)	90%		
Were samples collecte	ed for water chemistry? (Y/N): N	_ (Note lab sample no. or id. a	and attach results) Lab Number:	
	emp (°C) Dissolved Oxygen (ı	mg/l) pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach	representative of the stream (Y/N)	If not, please explain:		
Additional comments/o	description of pollution impacts:			
BIOTIC EV	ALUATION			
Performed? (Y/N): N	(If Yes, Record all observation	s. Voucher collections optional	I. NOTE: all voucher samples must	be labeled with the site
			imary Headwater Habitat Assessmer	t Manual)
Fish Observed? (Y/N)	N Voucher? (Y/N) N Salar	manders Observed? (Y/N) N	Voucher? (Y/N)	N
Frogs or Tadpoles Ob	served? (Y/N) N Voucher? (Y/N)	Aquatic Macroinvertebra	tes Observed? (Y/N) N Vouche	er? (Y/N)
Comments Regarding	Biology:			
DRAWI	NG AND NARRATIVE DESCR	RIPTION OF STREAM R	REACH (This <u>must</u> be com	pleted):
Include importa	nt landmarks and other features of i	nterest for site evaluation an	nd a narrative description of the s	tream's location
_				
FLOW -	See Stream Assessme	ent Form		
	S5-S246_1 for site	topographic ma	p,	
	aerial photograph,	and resource p	hotographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Indian Ck Quarter: SW Range: R1W

Watershed: 05120202010 Channelized/Type: Yes/Concrete Gutter

Stream Type: Ephemeral **Evaluation Type:** HHEI

Evaluation Score: 12 Legal Drain (Y/N): Ν

UTME: 1778174 ft UTMN: 14277682 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.1 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
Watershed Area:	0.01 sq m
D 1 1 40 1	A (1.61 1 1

Predominant Sub: Artificial

Stream S5-S246_1a – Modified Class I PHWH						
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)			
4	592	0.03	0.65			
5	592	0.03	0.67			
6	592	0.03	0.18			
7	592	0.03	0.44			
8	592	0.03	0.17			
RPA 8	592	0.03	0.12			

Description of Potential Impact:

Impacts to S5-S246 1a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter beginning along West Burma Road and following SR 37 to S5-S246c. There is no riparian buffer associated with this artificial channel on the left bank and a wide buffer on the right. The floodplain consists of transportation along the left floodplain and immature forest along the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246_1a are on the second page of this form.



Photograph Taken Upstream

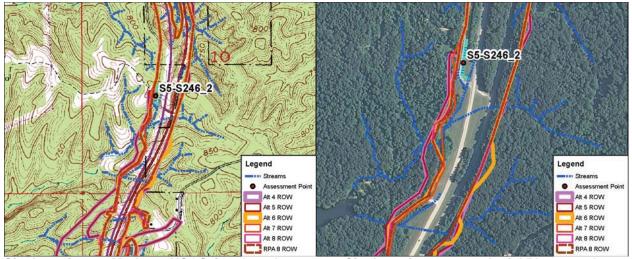


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S246_1a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31500 LONG. RIVER CODE RIVER MILE	
DATE 02/19/13 SCORER DEW COMMENTS (Long: -86.51292) (Concrete Gutter-Modified C	lass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	⊥ HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 4
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] O% ARTIFICIAL [3 pts] 0% 100%	7
Total of Percentages of Occide (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock Check Check	^+5
	<u> </u>
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3 RANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one hox):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### AVERAGE BANKFULL WIDTH (meters): 0.37 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10 Mature Forest, Wetland Mature Forest Shrub or Old Immature Forest Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 Mature Forest, Wetland Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 Mature Forest, Wetland Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10m	Width Max=30
A	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10m	Width Max=30

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010 Channelized/Type: Yes/Concrete Gutter **Stream Type:** Ephemeral

Evaluation Type: HHEI **Evaluation Score:** 12

Legal Drain (Y/N): Ν

UTME: 1778222 ft **UTMN:** 14277715 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.2 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
Watershed Area	0.01 sa m

0.01 sq mi Predominant Sub: Artificial

Stream S5-S246_2 - Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	462	0.01	0.30	
5	462	0.01	0.30	
6	462	0.01	0.30	
7	462	0.01	0.30	
8	462	0.01	0.30	
RPA 8	462	0.01	0.30	

Description of Potential Impact:

Impacts to S5-S246_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter adjacent to West Burma Road. There is no riparian buffer associated with this artificial channel. The floodplain consists of transportation use along the right bank and old field along the left. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246 2 are on the second page of this form.



Photograph Taken Upstream

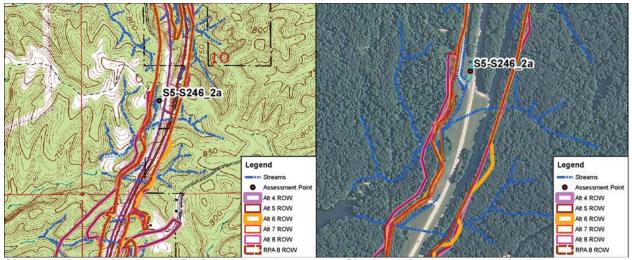


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S246_2 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31509 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51276) (Concrete Gutter-Modified Cl	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0% 0%	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts] 0% MUCK [0 pts] 0%	7
SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 100%	<u>'</u>
Total of Percentages of 0.00% (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): ### D.36	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): O.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream notes and looking looking looking looking looking looking looking notes and looking	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Notes (Per Bank) RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Narrow <5 m Residential, Park, New Field Penced Pasture Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) None water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) Wide > 10m Mature Forest, Wetland Moderate 5 10m Mature Forest, Wetland Moderate 5 10m Residential, Park, New Field Viant Residential, Park, New Field FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) COMMENTS 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) Wide > 10m Mature Forest, Wetland Moderate 5 10m Mature Forest, Wetland Moderate 5 10m Residential, Park, New Field Viant Residential, Park, New Field FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) COMMENTS 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.	Width Max=30





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010
Channelized/Type: Yes/Concrete Gutter

Stream Type: Ephemeral Evaluation Type: HHEI

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1778306 ft **UTMN:** 14277639 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet **USCOE** Jurisdiction: No **IDEM Jurisdiction:** No

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S246_2a – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	211	0.01	0.17
5	211	0.01	0.17
6	211	0.01	0.17
7	211	0.01	0.17
8	211	0.01	0.17
RPA 8	211	0.01	0.17

Description of Potential Impact:

Impacts to S5-S246_2a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter beginning along SR 37. There is no riparian buffer associated with this artificial channel. The floodplain consists entirely of transportation uses. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246_2a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

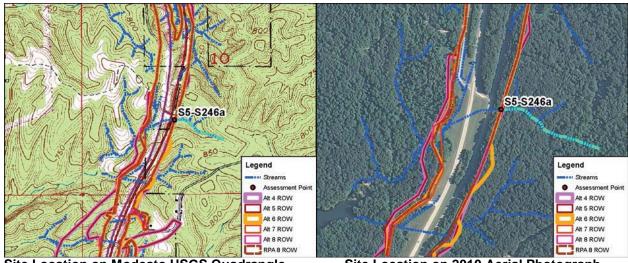


	THIEF COOLS (Sum of metrics 1, 2, 3):	
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER	55-S246_2a RIVER BASIN White River DRAINAGE AREA (mi²) 0.01	1
LENGTH OF STREAM REACH (ft) 200	LAT. 39.31488 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEV		; I)
NOTE: Complete All Items On This Forn	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct	tions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED.	ERY/
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
		Metri Point
BLDR SLABS [16 pts]	0/8 SIL1 [5 βt]	OIIIL
□ □ BOULDER (>256 mm) [16 pts] □ □ BEDROCK [16 pt]	0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% S	Substra
COBBLE (65 256 mm) [12 pts]		Max = 4
GRAVEL (2 64 mm) [9 pts]	0% MUCK [0 pts] 0%	
SAND (<2 mm) [6 pts]	0% ARTIFICIAL [3 pts] 100%	7
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
	, ,	ool Dep Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	IVIAX = 3
> 22.5 30 cm [30 pts]	< 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
	MAXIMOM 1 002 BET 111 (certaineters).	
3. BANK FULL WIDTH (Measured as the		Bankfu
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7' - 4' 8") [20 pts]	□ ≤ 1.0 III (<-3 3) [3 μts]	Wax-50
, ,, ,		
COMMENTS OHW 1.2'/0.2'	AVERAGE BANKFULL WIDTH (meters): 0.37	5
	This information must also be completed	
RIPARIAN ZONE AND FLOODP		
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank) Wide >10m	L R (Most Predominant per Bank) L R Mature Forest, Wetland Conservation Tillage	
Moderate 5 10m	Urban or Industrial	
— — Woderate 3 Tottl	Field	
☐☐ Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop	
✓ ✓ None	Fenced Pasture Mining or Construction	
COMMENTS	<u> </u>	
ELOW REGIME (At Time of Eve	aluation) (Check ONLY one box):	
Stream Flowing	Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated poo		
COMMENTS_		
SINUOSITY (Number of bends n	per 61 m (200 ft) of channel) (Check ONLY one box):	
None	1.0 2.0 3.0	
0.5	1.5 2.5 >3	
STREAM GRADIENT ESTIMATE		
OTTLAN GRADILINI ESTIMATE		
Flat (0.5 ft/100 ft)	Moderate (2 ft/100 ft) ✓ Moderate to Severe ☐ Severe (10 ft/100 ft)	t)
Flat (0.5 ft/100 ft)	☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)	t)



See Stream Assessment Form S5-S246_2a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010 Channelized/Type: No/Natural Stream Type: **Ephemeral Evaluation Type:** HHEI 40

Evaluation Score: Legal Drain (Y/N): Ν

UTME: 1778622 ft **UTMN:** 14277251 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	9.0 feet
OHWM Depth:	0.9 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.08 sq mi
	<u> </u>

Sand/gravel **Predominant Sub:**

Stream S5-S246a – Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	39	0.01	0.14
5	41	0.01	0.15
6	21	0.01	0.08
7	21	0.01	0.08
8	21	0.01	0.08
RPA 8	21	0.01	0.08

Description of Potential Impact:

Impacts to S5-S246a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor where these Alternatives cross this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246a are on the second page of this form.



Photograph Taken Upstream

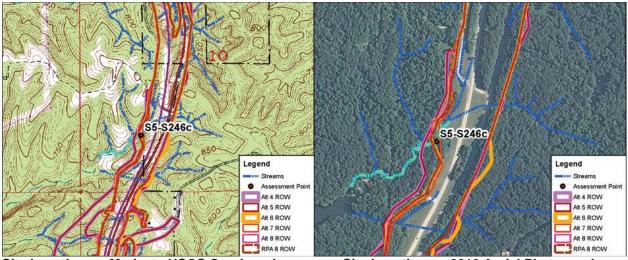




SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S246a RIVER BASIN White River DRAINAGE AREA (mi²)	0.08
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31381 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51135) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 10%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] D'' LEAF PACK/WOODY DEBRIS [3 pts] 5%	Substrate
☐ ☐ COBBLE (65 256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] 0 %	Max = 40
GRAVEL (2 64 mm) [9 pts] 20% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 60% ARTIFICIAL [3 pts] 0%	20
Cyclestrate Personates	
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
→ > 22.5 30 cm [30 pts] < 5 cm [5 pts]	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
 BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): 	
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 9'/0.9' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 9'/0.9' AVERAGE BANKFULL WIDTH (meters): 2.75 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 9'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 9'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) V Wide >10m V Mature Forest, Wetland Conservation Tillage	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 9'/0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Moderate 5 10m L R (Most Predominant per Bank) I Moderate 5 10m L R (Most Predominant per Bank) I Moderate 5 10m Wide > 10m I Immature Forest, Shrub or Old I Urban or Industrial	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY LR (Per Bank) Vide >10m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): Z.75 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Moderate 5 10m Narrow <5m Section 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): Z.75 AVERAGE BANKFULL WIDTH (meters): Z.75 AVERAGE BANKFULL WIDTH (meters): LR (Most Predominant per Loop Bank) LR (Per Bank) LR (Most Predominant per Bank) LR (Conservation Tillage Immature Forest, Wetland LR Urban or Industrial Open Pasture, Row Conservation Field Copen Pasture, Row Copen Pasture	Width Max=30 20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) V Wide >10m Conservation Tillage Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 2.75 AVERAGE BANKFULL WIDTH (meters): 2.75 AVERAGE BANKFULL WIDTH (meters): 2.75	Width Max=30 20
S 3.0 m -4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30 20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5 10m Moderate 5 10m Narrow <5m Narrow <5m Narrow <5m Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitted) AVERAGE BANKFULL WIDTH (meters): 2.75	Width Max=30 20
Solution	Width Max=30 20
3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width Max=30 20
S S S S S S S S S S	Width Max=30 20
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH RIP	Width Max=30 20
S Normal	width Max=30 20 crop

ADDITIONAL STREAM	M INFORMATION (This Information M	ust Also be Completed):		S5-S246a
QHEI PERF	ORMED? Yes No QHEISco	re (If Yes, Atta	ach Completed QHEI Form)	
DOWNSTRE WWH Name: Indi CWH Name: EWH Name:	EAM DESIGNATED USE(S) an Creek		Distance from Evaluated Distance from Evaluated Distance from Evaluated	Stream _
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING	THE <u>ENTIRE</u> WATERSHED	DAREA. CLEARLY MARK 1	THE SITE LOCATION
USGS Quadrangle Na	me: Modesto	NRCS Soil Map F	Page: NRCS Soil N	Map Stream Order
County: Monroe		Township / City: Washi	ngton	
MISCELLAN Base Flow Conditions Photograph Informatio	P (Y/N): Y Date of last precipitati	on: 10/13/11	Quantity: 0.25	
Elevated Turbidity? (Y	(N): N Canopy (% open):	0% (Note lab sample no. or id. a	and attach results) Lab Num	nber:
Is the sampling reach	representative of the stream (Y/N) Rescription of pollution impacts:	If not, please explain:	Conductivity (µmho	
Performed? (Y/N):N Fish Observed? (Y/N) Frogs or Tadpoles Observed: Comments Regarding	(If Yes, Record all observations. ID number. Include appropriate N Voucher? (Y/N) N Salama Served? (Y/N) N Voucher? (Y/N) N	field data sheets from the Pri	imary Headwater Habitat Asso Voucher? (Y/N)	
	NG AND NARRATIVE DESCRI		· · · · · · · · · · · · · · · · · · ·	
FLOW	See Stream Assessmer S5-S246a for site to aerial photograph, a	ppographic map		





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Indian Ck

Quarter: SW Range: R1W

Watershed: 05120202010 Channelized/Type: No/Natural **Stream Type:** Intermittent **Evaluation Type:** HHEI

Evaluation Score: 38 Legal Drain (Y/N): Ν

UTME: 1777965 ft **UTMN:** 14276874 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 4.2 feet OHWM Depth: 0.7 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.08 sq mi Sand/gravel **Predominant Sub:**

Stream S5-S246c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	456	0.04	1.13
5	455	0.04	1.11
6	340	0.03	0.54
7	235	0.02	0.25
8	345	0.03	0.58
RPA 8	342	0.03	0.45

Description of Potential Impact:

Impacts to S5-S246c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor on the right bank and a moderately-wide buffer on the left bank where these Alternatives cross this stream. The adjacent floodplain consists of immature forest on the adjacent right floodplain area while the left floodplain consists of an old field through a utility line ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S246c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

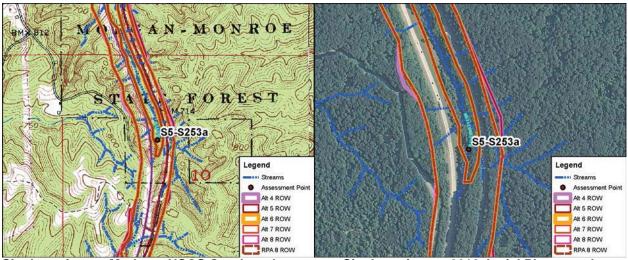


38

SITE NAME/LOCATION I-69 Section 5	<u> </u>	
	5-S246c RIVER BASIN White River DRAINAGE AREA	A (mi²) 0.08
		R MILE
DATE 04/26/12 SCORER KSS/DEV	COMMENTS (Long: -86.51368) (Natural -Class I)	
NOTE: Complete All Items On This Form	- Refer to "Field Evaluation Manual for Ohio's PHWH Streams"	for Instructions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	URAL CHANNEL	NO RECOVERY
· · · · · · · · · · · · · · · · · · ·	ry type of substrate present. Check ONLY two predominant substrate TYPE	
, ,	int substrate types found (Max of 8). Final metric score is sum of boxes A & B RCENT TYPE PERCEN	Motri
BLDR SLABS [16 pts]	15% SILT [3 pt] 0%	Point
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% FINE DETRITUS [3 pts] 0%	Substrat
BEDROCK [16 pt] COBBLE (65 256 mm) [12 pts]	0% Image: Fine detritus [3 pts] 0% 0% Image: Clay or HARDPAN [0 pt] 0%	Max = 4
	30% MUCK [0 pts] 0%	
SAND (<2 mm) [6 pts]	55% ARTIFICIAL [3 pts] 0%	18
Total of Percentages of	5.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBS		3
. Maximum Pool Depth (Measure the ma	aximum pool depth within the 61 meter (200 ft) evaluation reach at the time	of Pool Dep
	culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 22.5 30 cm [30 pts]	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS	MAXIMUM POOL DEPTH (centimeters):	5
BANK FULL WIDTH (Measured as the	average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	∠ 1.0 m (<=3' 3") [5 pts]	Max=30
COMMENTS OHW = 4.2'/0.7'	AVERAGE BANKFULL WIDTH (meters):	1.28 15
	<u> </u>	
RIPARIAN ZONE AND FLOODP	This information must also be completed LAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstre	nam S
RIPARIAN WIDTH	FLOODPLAIN QUALITY	Zam za
L R (Per Bank)	L R (Most Predominant per Bank) L R	
Wide >10m	Mature Forest, Wetland Conservation Immature Forest, Shrub or Old	· ·
Moderate 5 10m	Field	
Narrow <5m	Residential, Park, New Field Open Pasture	, Row Crop
None	Fenced Pasture Mining or Con	struction
COMMENTS		
FLOW REGIME (At Time of Eval	· · ·	
Stream Flowing Subsurface flow with isolated pool	Moist Channel, isolated pools, no flow (Int s (Interstitial) Dry channel, no water (Ephemeral)	ermittent)
COMMENTS_		
SINUOSITY (Number of bends be	er 61 m (200 ft) of channel) (Check ONLY one box):	
None	1.0 2.0 3.0	
0.5	1.5 2.5 >3	
STREAM GRADIENT ESTIMATE		
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate	✓ Moderate (2 ft/100 ft)	ere (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed	S5-S246C <u>d):</u>
QHEI PERFORMED? Yes No QHEI Score (If Yes,	Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Indian Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERS	HED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Ma	ap Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Wa	ashington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 04/04/12	Quantity: 0.15
Photograph Information:	
Elevated Turbidity? (Y/N): _ N Canopy (% open): 10%	
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or	id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U	.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain	:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections opt ID number. Include appropriate field data sheets from the	ional. NOTE: all voucher samples must be labeled with the site e Primary Headwater Habitat Assessment Manual)
	N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREA	
Include important landmarks and other features of interest for site evaluatio	n and a narrative description of the stream's location
See Stream Assessment Form	
S5-S246c for site topographic ma	ap,
aerial photograph, and resource	photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Secret

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1778660 ft **UTMN**: 14279263 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.1 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Watershed Area: 0.01 sq mi
Predominant Sub: Silt/Clay

	Stream S5-	S253a – Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	416	0.02	0.63
5	416	0.02	0.63
6	416	0.02	0.63
7	416	0.02	0.63
8	416	0.02	0.63
RPA 8	416	0.02	0.63

Description of Potential Impact:

Impacts to S5-S253a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of silt and clay. There is wide riparian corridor on both the right and left banks of this stream consisting of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S253a are on the second page of this form.



Photograph Taken Downstream



Photograph Taken Upstream



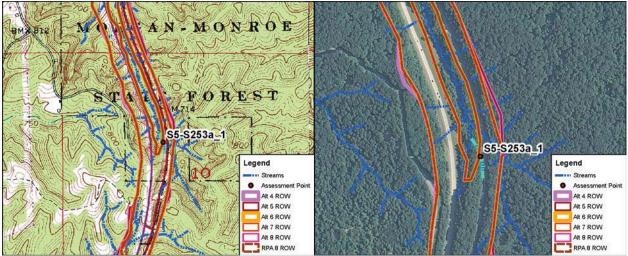
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S253a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31933 LONG. RIVER CODE RIVER MILE	
DATE 02/19/13 SCORER DEW COMMENTS (Long: -86.51118) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 40%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 4
☐ ☐ GRAVEL (2 64 mm) [9 pts] ☐ ☐ MUCK [0 pts] ☐ ☐ 0% ☐ ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	7
Tatal (Parantage of)	
Total of Percentages of O.00% (A) Substrate Percentage Check 100% (B)	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
	l
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.64 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): O.64 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Vide >10 m Mature Forest, Wetland Moderate 5 10 m Immature Forest, Shrub or Old Wide >10 m Immature Forest, Shrub or Old Urban or Industrial Field Narrow <5 m Residential, Park, New Field Open Pasture, Row C Open Pasture, Row C Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): O.64 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Nature Forest, Wetland RIPARIAN WIDTH FLOODPLAIN QUALITY Most Predominant per Bank) L R (Most Pred	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Motter Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moderate (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] AVERAGE BANKFULL WIDTH (meters): 0.64 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L) and Right (R) as looking downstream ★ NOTE: River Left (L	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Mu	S5-S253a st Also be Completed):
QHEI PERFORMED? Yes ✓ No QHEI Score	e (If Yes, Attach Completed QHEI Form)
	(<u></u> (
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek	Distance from Evaluated Stream
OVA/LLA Lawrence	Distance from Early start Observe
EWH Name:	
LWITName	Distance nom Evaluated Stream
·	THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name:_Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe	Township / City:
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation	on: 02/18/13 Quantity: 0.10
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open):	10%
Were samples collected for water chemistry? (Y/N): (N	Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/	/l)pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N)	If not, please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
. , :	Voucher collections optional. NOTE: all voucher samples must be labeled with the site ield data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salaman Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N)	nders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	N N
DRAWING AND NARRATIVE DESCRIP	TION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of inte	rest for site evaluation and a narrative description of the stream's location
•	·

FLOW

See Stream Assessment Form S5-S253a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: Yes/Concrete Gutter **Stream Type: Ephemeral**

Evaluation Type: HHEI **Evaluation Score:** 12 Legal Drain (Y/N): Ν

UTME: 1778783 ft **UTMN:** 14279171 ft

Modesto
10
T10N
N/A
2.1 feet
0.2 feet
Yes
Yes
0.01 sq m

ni **Predominant Sub:** Artificial

	Stream S5-S253a	_1 - Modified Class I PHWI	Н
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	437	0.02	0.71
5	437	0.02	0.71
6	437	0.02	0.71
7	437	0.02	0.71
8	437	0.02	0.71
RPA 8	437	0.02	0.71

Description of Potential Impact:

Impacts to S5-S253a_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The concrete gutter is located inside the bifurcated median of SR 37. There is a narrow riparian buffer associated with this artificial channel along its right bank and a wide buffer along the left. The right floodplain consists of INDOT ROW while the left floodplain area consists of mature forest where these Alternatives cross this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S253a 1 are on the second page of this form.



Photograph Taken Upstream

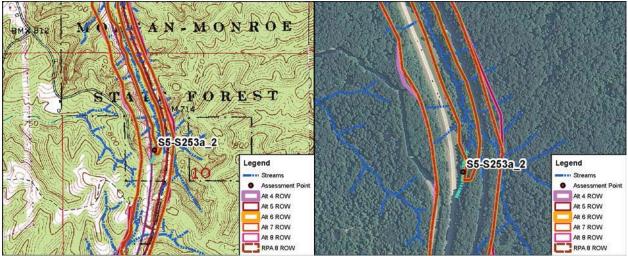


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S253a_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31908 LONG. RIVER CODE RIVER MILE	
DATE 05/22/12 SCORER JDP COMMENTS (Long: -86.51075) (Concrete Gutter-Modified Cl	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 4
☐ GRAVEL (2 64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 100%	7
Total of Percentages of Occor (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock Check Check	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 30 cm [30 pts] < 5 cm [5 pts] < 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
2 DANK FULL WIDTH (Macausard on the guarage of 2 A managements) (Check ON! Vana hav)	Ponkful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) V Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 m Wide >10 m Mature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Page 14' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.64 Diameters (> 10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): NOTE: River Left (L) and Right (R) as looking downstream And Page 15' (R) and Page 15' (R) as looking downstream And Page 15' (R) and Page 15' (Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10 m Y Mature Forest, Wetland Moderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 3' 3" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.64 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY ★ (Most Predominant per Bank) L R (Most Predominant per Bank) Urban or Industrial (Department) (Departme	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.1'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10 m Y Mature Forest, Wetland Moderate 5 10m	Width Max=30





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Concrete Gutter

Stream Type: Ephemeral Evaluation Type: HHEI Evaluation Score: 12

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1778603 ft **UTMN**: 14279010 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.1 feet
OHWM Depth:	0.2 feet
USCOE Jurisdiction:	No
IDEM Jurisdiction:	No
Watershed Area:	0.01 car

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

	Stream S5-S253a	_2 - Modified Class I PHW	Н
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	516	0.02	1.58
5	516	0.02	1.58
6	516	0.02	1.58
7	516	0.02	1.58
8	516	0.02	1.58
RPA 8	516	0.02	1.58

Description of Potential Impact:

Impacts to S5-S253a_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The concrete gutter is located inside the bifurcated median of SR 37. There is a narrow riparian buffer associated with this artificial channel along its right bank and a wide buffer along the left. The right floodplain consists of INDOT ROW while the left floodplain area consists of mature forest where these Alternatives cross this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S253a_2 are on the second page of this form.



Photograph Taken Upstream

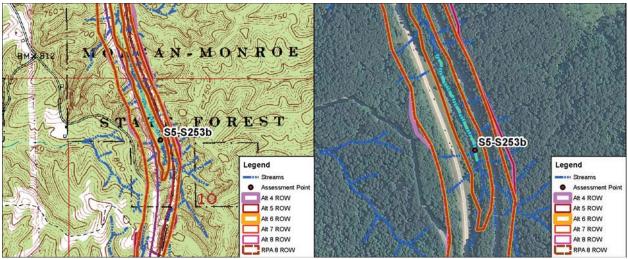


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5		
SITE NAME/LOCATION I-03 Section 3		
	S253a_2 RIVER BASIN White River DRAINAGE AREA (mi²) 0.01	i
LENGTH OF STREAM REACH (ft) 200 LA	AT. 39.31908 LONG. RIVER CODE RIVER MILE	
DATE 05/22/12 SCORER JDP	COMMENTS (Long: -86.51075) (Concrete Gutter-Modified Class	D
NOTE: Complete All Items On This Form -	Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruct	tions
STREAM CHANNEL NONE / NATURE MODIFICATIONS:	RAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVE	ERY
SUBSTRATE (Estimate percent of every to	type of substrate present. Check ONLY two predominant substrate TYPE boxes	
	substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
	CENT THE PROPERTY OF	Metri Point
BLDR SLABS [16 pts] 05 BOULDER (>256 mm) [16 pts] 05	76 SILT [S Pt]	OIIII
BEDROCK [16 pt] 09		Substra
COBBLE (65 256 mm) [12 pts]	== Marie M	Max = 4
GRAVEL (2 64 mm) [9 pts]		7
SAND (<2 mm) [6 pts]		7
Total of Percentages of	No/c (A) Substrate Percentage (A)	
O.00 Bldr Slabs, Boulder, Cobble, Bedrock	0% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRA	ATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maxi	imum pool depth within the 61 meter (200 ft) evaluation reach at the time of	ool Der
·		Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	
> 22.5 30 cm [30 pts]	< 5 cm [5 pts]	•
> 10 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
2 DANK FULL WIDTH /Macausa day the ass	(Check ON Version)	Bankfu
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]		Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]		Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW 2.1'/0.2'	AVERAGE BANKFULL WIDTH (meters): 0.64	5
	· / L	
	This information must also be completed	
RIPARIAN ZONE AND FLOODPLA		
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
✓ Wide >10m	✓ ✓ Mature Forest, Wetland Conservation Tillage	
	Immature Forest Shrub or Old	
Moderate 5 10m	Immature Forest, Shrub or Old Urban or Industrial	
Moderate 5 10m	Field Open Pasture Row Crop	
Moderate 5 10m Narrow <5m	Field Orban or Industrial Residential, Park, New Field Open Pasture, Row Crop	
Moderate 5 10m	Field Open Pasture Row Crop	
Moderate 5 10m Narrow <5m None COMMENTS	Field Residential, Park, New Field Penced Pasture Orban or Industrial Open Pasture, Row Crop Mining or Construction	
Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation	Field Orban or Industrial Open Pasture, Row Crop Residential, Park, New Field Mining or Construction tion) (Check ONLY one box):	
Moderate 5 10m Narrow <5m None COMMENTS	Field Residential, Park, New Field Penced Pasture Mining or Construction Wition) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	
Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation Stream Flowing	Field Residential, Park, New Field Penced Pasture Mining or Construction Wition) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	
Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluate Stream Flowing Subsurface flow with isolated pools (COMMENTS	Field Residential, Park, New Field Penced Pasture Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluate Stream Flowing Subsurface flow with isolated pools (COMMENTS SINUOSITY (Number of bends per 6)	Field Residential, Park, New Field Penced Pasture Mining or Construction Wition) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	
Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluate Stream Flowing Subsurface flow with isolated pools (COMMENTS SINUOSITY (Number of bends per Continuo None	Field Residential, Park, New Field Penced Pasture Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) 61 m (200 ft) of channel) (Check ONLY one box):	
Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation Stream Flowing Subsurface flow with isolated pools (COMMENTS SINUOSITY (Number of bends per 6) None 0.5	Field Residential, Park, New Field Penced Pasture Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) 61 m (200 ft) of channel) (Check ONLY one box): 1.0 3.0	
Moderate 5 10m Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluar Stream Flowing Subsurface flow with isolated pools (COMMENTS SINUOSITY (Number of bends per None 0.5 STREAM GRADIENT ESTIMATE	Field Residential, Park, New Field Penced Pasture Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) 61 m (200 ft) of channel) (Check ONLY one box): 1.0 3.0	1





Site Location on Washington USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Creek NW NW

Range: R1W
Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Intermittent
Evaluation Type: HHEI
Evaluation Score: 63.5

Legal Drain (Y/N): N

UTME: 1778597 ft **UTMN:** 14279750 ft

USGS Quadrangle: Washington

Section: 10 Township: T10N IDEM 303(d) List: N/A **OHWM Width:** 13.0 feet OHWM Depth: 2.5 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.14 sq mi

Predominant Sub: Bedrock/boulder slabs

	Stream S5-S	S253b – Class III PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	1223	0.36	4.70
5	1223	0.36	4.70
6	1223	0.36	4.70
7	1223	0.36	4.70
8	1223	0.36	4.70
RPA 8	1223	0.36	4.70

Description of Potential Impact:

Impacts to S5-S253b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel is located inside the bifurcated median of SR 37 and its substrate consists predominantly of bedrock and boulder slabs. There is a wide riparian buffer associated with this stream. The adjacent floodplain consist of mature forest. Photographs taken upstream and downstream are on the second page of this form.



Photograph Taken Upstream



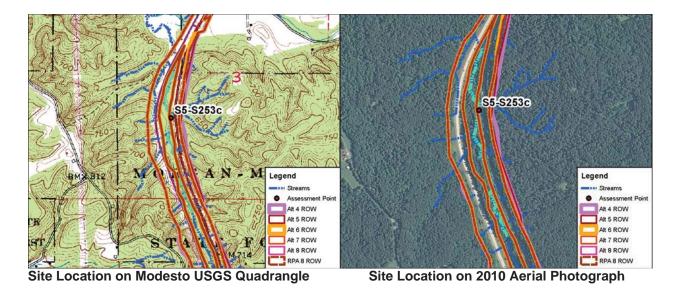
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S253b RIVER BASIN White River DRAINAGE AREA (mi²)	0.14
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32092 LONG. RIVER CODE RIVER MILE	
DATE 05/08/06 SCORER A Rogers COMMENTS (Long: -86.51146) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 35% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts]	35
SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 0%	
Total of Percentages of 85.00% (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 32 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
▶ 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	20
COMMENTS MAXIMUM POOL DEPTH (centimeters): 39	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' AVERAGE BANKFULL WIDTH (meters): 3.99 This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PROPERTY OF Bank) AVERAGE BANKFULL WIDTH (meters): 3.99 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) ✓ Wide >10m ✓ Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) ↓ R (Most Predominant per Bank) ↓ Wide > 10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Notes (Per Bank) RIPARIAN WIDTH RIPARIAN W	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream (RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH REPEBBANK Wide >10 m Residential, Park, New Field Narrow <5m None Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS *1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] *2 1.0 m (<=3' 3") [5 pts] *3.09 *3.99 *4VERAGE BANKFULL WIDTH (meters): 3.99 *4VERAGE BANKFULL WIDTH (meters): 3.99 **AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (Pastallan And FloodPlain	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 13'/2.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m (<=3' 3") [5 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2 1.0 m (<=3' 3") [5 pts] 3.00 m (<=3' 3") [5 pts] 3.00 m (<=3' 3") [5 pts] 3.00 m (<=3' 3") [5 pts] 4 1.0 m (<=3' 3") [5 pts] 5 1.0 m (<=3' 3")	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream (RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH REPEBBANK Wide >10 m Residential, Park, New Field Narrow <5m None Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS *1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] *2 1.0 m (<=3' 3") [5 pts] *3.09 *3.99 *4VERAGE BANKFULL WIDTH (meters): 3.99 *4VERAGE BANKFULL WIDTH (meters): 3.99 **AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 3.99 **This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (Pastallan And FloodPlain	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 13') [20 pts] COMMENTS OHW 13'/2.5' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): RIPARIAN VIDTH FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Nature Forest, Wetland Wide > 10m Residential, Park, New Field Open Pasture, Row Comments Narrow < 5m Residential, Park, New Field Open Pasture, Row Comments None Residential, Park, New Field Open Pasture, Row Comments Stream Flowing Subsurface flow with isolated pools (Interstitial) Other Comments SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.5 2.5 3.0 3.0 None 1.5 3.0 None 1.5 3.0 None 1.5 3.0 None 1.5 3.0 N	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30 25 Crop nt)

ADDITIONAL STRE	AM INFORMATION (This Information Must Also	be Completed):	55-52530
QHEI PER	RFORMED? Yes No QHEI Score	(If Yes, Attach Co	mpleted QHEI Form)
DOWNST WWH Name: Bi CWH Name: EWH Name:	REAM DESIGNATED USE(S) ryant Creek	Dist	tance from Evaluated Stream ance from Evaluated Stream ance from Evaluated Stream
MAPPING	S: ATTACH COPIES OF MAPS, INCLUDING THE EN	NTIRE WATERSHED ARE	A. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle N		NRCS Soil Map Page:	NRCS Soil Map Stream Order
County: Monroe		ship / City:Washington	
MISCELL	ANEOUS		
Base Flow Condition	ns? (Y/N): Y Date of last precipitation:	05/04/06	Quantity: 0.01
Photograph Information			
Elevated Turbidity?	(Y/N): _ N Canopy (% open): _ 15%	/ o	
Were samples collection	cted for water chemistry? (Y/N): N (Note lab	sample no. or id. and at	tach results) Lab Number:
		pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reac	ch representative of the stream (Y/N) If not,	please explain:	
Additional comments	s/description of pollution impacts:		
BIOTIC E	EVALUATION		
Performed? (Y/N): _	ID number. Include appropriate field data	a sheets from the Primary F	E: all voucher samples must be labeled with the site deadwater Habitat Assessment Manual)
Fish Observed? (Y/N Frogs or Tadpoles C	Observed? (Y/N) N Voucher? (Y/N) N Aqua	Observed? (Y/N) N Volume Volum	oucher? (Y/N) N Voucher? (Y/N) N
Comments Regarding	ng Biology:		
	VING AND NARRATIVE DESCRIPTION		· · · · · · · · · · · · · · · · · · ·
merude impor	rtant landmarks and other features of interest fo	site evaluation and a na	manve description of the stream's location
_	See Stream Assessment Fo	orm	
FLOW -	S5-S253b for site topogr		
	aerial photograph, and r	esource phot	ographs





Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 **OHWM Width:** 13.0 feet

Channelized/Type: No/Natural OHWM Depth: 2.5 feet **Stream Type:** Intermittent **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 80 Watershed Area: 0.48 sq mi

Legal Drain (Y/N): N Watersned Area: 0.48 sq mi

UTME: 1777766 ft **UTMN**: 14282715 ft

Stream S5-S253c - Class III PHWH						
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)			
4	3432	1.02	12.59			
5	3432	1.02	12.59			
6	3432	1.02	12.59			
7	3432	1.02	12.59			
8	3432	1.02	12.59			
RPA 8	3432	1.02	12.59			

Description of Potential Impact:

Impacts to S5-S253c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel is located inside the bifurcated median of SR 37 and its substrate consists predominantly of bedrock, boulder slabs, and gravel. There is a wide riparian buffer associated with this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S253c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

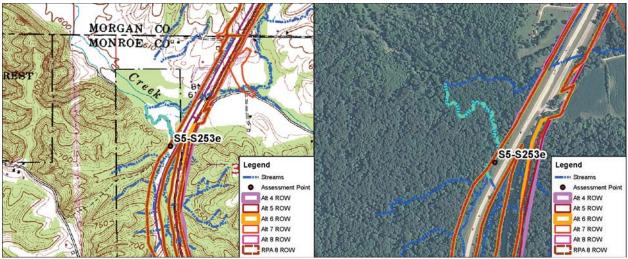


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S253c RIVER BASIN White River DRAINAGE AREA (mi²)	0.48
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32883 LONG. RIVER CODE RIVER MILE	
DATE 05/08/06 SCORER A Rogers (Long: -86.51428) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 35% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts]	35
SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 0%	
Total of Percentages of 85.00% (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 32 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
▶ 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	20
COMMENTS MAXIMUM POOL DEPTH (centimeters): 39	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Wax=50
COMMENTS OHW 13'/2.5' AVERAGE BANKFULL WIDTH (meters): 3.99	05
	' 2 5
	25
This information must also be completed	25
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY \$\frac{1}{2}NOTE: \text{River Left (L) and Right (R) as looking downstream \$\frac{1}{2}\$	25
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	25
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m And Predominant per Bank) L R Wide >10m And Predominant per Bank) L R RIPARIAN WIDTH L R (Most Predominant per Bank) L R Wide >10m And Predominant per Bank) L R	25
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R V Wide >10m V Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Conservation Tillage None Fenced Pasture Mining or Construction COMMENTS	rop
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Another Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Im	rop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow < 5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	rop
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Immature Forest, Wetland Moderate 5 10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	rop

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes V No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y _ Date of last precipitation: 05/04/06 Quantity: 0.01
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 15%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) N Voucher? (Y/
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form

S5-S253c for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: NW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 15.0 feet

Channelized: No OHWM Depth: 1.7 feet
Stream Type: Intermittent USCOE Jurisdiction: Yes

Evaluation Type:QHEIIDEM Jurisdiction:YesEvaluation Score:55.5Watershed Area:0.71 sq miLegal Drain (Y/N):NPredominant Sub:Gravel/sand

UTME: 1777761 ft **UTMN**: 14284030 ft

Stream S5-S253e – Warm Water Habitat				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	368	0.13	0.67	
5	363	0.13	0.65	
6	363	0.13	0.65	
7	363	0.13	0.65	
8	363	0.13	0.65	
RPA 8	363	0.13	0.65	

Description of Potential Impact:

Impacts to S5-S253e at for Alternatives 4, 5, 6, 7, 8, and RPA 8 are listed in the table above. At the time of the evaluation, this stream is an intermittent stream with fair to good habitat development and high sinuosity where these Alternatives cross this stream. The predominant substrate consists of gravel and sand. The stream has a wide riparian corridor associated with its left bank and a narrow riparian buffer along its right bank. The adjacent floodplain is dominated by forest land on the left and transportation (SR 37) on the right. Photographs taken upstream and downstream at the S5-S253e are on the second page of this form. All of the Alternatives possess the same length and area of impacts to the unnamed tributary to Bryant Creek at this location.



Photograph Taken Upstream



Photograph Taken Downstream

OWQ Biological Studies QHEI (Qualitative Habitat Evaluation Index)

Sample #	bioSample #	Stream Name	0.5V=	Location	-
52536			E Wahilat	West SEER	
Surveyor Sample Date		Macro Sample Type	Complete	QHEI Score:	55.5
MESIDEM AVECINE	Mayorit	-	Somprete	C. Inn action	
1] SUBSTRATE Check CINLY Two			See	f and	
estimate % and	d check every type pres	ent		0: 2 & average)	
FREDOMENANT PRESENT TOTAL		ER TYPES OR	IGIN	QUALITY	
PR PR	PR	PR 🗆 LIME	STONE[1]	S HEAVY [-2]	
DD BLDR/SLABS[10] DD	HARDPAN [4	n dia & Tills	ANDS[0]	MODERATE [-	A Control of the Control
O COBBLE (9)	☐☐ DETRITUS[3	I WETL	PAN [O]	FREE[1]	Substrate
GRAVEL[7]	□□ SELT[2]	Ø□ 10 □ SAND	STONE [0]	E	LU
SAND[6]	And the second s	The state of the s	CAP [0]	☐ EXTENSIVE [-7	
□□ BEDROCK[5] □□ NUMBER OF BEST TYPES: □40			STRUNE [0] E[-1]	MODERATE [-1	Maximum
	r less [0]	COAL	FINES[-2]	NONE[1]	20
Comments	527			4	
2] INSTREAM COVER Indicate [presence 0 to 3 and est	imate percent: 0-Absent; 1-V	ery small amount	s or If more common of m AMOUN	
quality; 2-Moderate amounts, but not or quality in moderate or greater amounts				Check ONE (Or 2 &	2000 1000 1000
that is stable, well developed root was in				☐ EXTENSIVE > 7	5% [11]
45 Amount	The America	A Arount	DACMMATTREE	MODERATE 25	
UNDERCUT BANKS [1] OVERHANGING VEGETATION			BACKWATERS[MACROPHYTES		
20 2 SHALLOWS (IN SLOW WATER			MOODY DEBRIS		
ROOTMATS[1]	110	A CONTRACTOR OF THE PARTY OF TH		Maximu	Control of the Contro
Comments					20
3] CHANNEL MORPHOLOGY	Check ONE in each can	anny (Or 2 & average)			
SINUOSITY DEVEL	OPMENT (HANNELIZATION	STAB		
	LLENT [7]	NONE 6	HIG	H[3] DERATE[2] Chan	nec
☐ MODERATE[3] ☐ GOOD ☐ LOW[2] ☐ FAIR		RECOVERING [3]	DE LOW	V[1] Maxim	
☐ NONÊ[Î] ☐ POOF		RECENT OR NO RECOVERY		10-200	20
Comments 449	202000000000000000000000000000000000000				V
4] BANK EROSION AND RIP	ARIAN ZONE Chec	k ONE in each category for EA	CH BANK (OF 2)	er bank & average)	
	A STATE OF THE STA	R FLOOD PLAIN QU	ALLIY	CONSERVATION TO	LAGENT
	Charles and the control of the contr	SHRUBOROLD FIELD	[2]	URBAN OR INDUST	
□□ MODERATE[2] □☑ NAM	RROW5-10m[2]	RESIDENTIAL, PARK, N	NEW FIELD[1]	MINING/CONSTR	UCTION [0]
	the second second second second	FENCED PASTURE [1]		te predominant land use(s	
Z / O NO	A. C.	☐ OPEN PASTURE, ROW	Carlol break	Dom noanan. Ripari Maximo	
Comments 143115	to 1 Million and Mark State 1995, the St. Phys. Lett. B 1995, 1995			T NOW I'M	10
5] POOL/GLIDE AND RIFFLE		CURRENT V	ELOCITY	Demantis D	hidronii - I
	NNEL WIDTH NE (Or 2 & average)	Check ALL to	A STATE OF THE PARTY OF THE PAR	Recreation P (Circle one and con	
□ >1m[6] □ POOLY	VIDTH > RIFFLE WIDT	H[2] TORRENTIAL[-1	[1] WOLE [1]	☐ Primary C	iontact
☐ 0.7-<1m[4] ⊠ POOLV	VIOTH = RIFFLE WIDT		INTERSTI		y Contact
☑ 0.4-<0.7m[2] ☐ POOLV ☐ 0.2-<0.4m[1]	VIDTH < RIFFLE WIDT	TH[0] FAST[1] MODERATE[1]	☐ INTERMIT		Control of the Contro
□ < 0.2m[0]		Indicab	e for reach - poo	s and riffies. Maximu	m
Comments	12141				17
Indicate for functional riffles; Best ar of riffle-obligate species:	Control of the second of the s	[[] 하다. [] 전 [] 하게 하다 나는 생활이다. [[] 하다 하다 하다 하다.		□ NORIFFLE[me	tric=01
		heck ONE (Or 2 & average) IFFLE/RUN SUBSTRA	TE RTEEL	E/RUN EMBEDDED	NAME OF TAXABLE PARTY.
		STABLE (e.g., Cobble, Bould		NONE [2]	
BEST AREAS 5-10cm[1] A MAI	OMUM < 50cm [1]]	MOD. STABLE (e.g., Large G	ravel)[1]	LOW[1] Riff	
BEST AREAS < 5 cm	4	UNSTABLE (e.g., Fine Grave	(,Sand)[0] D	MODERATE [0] R EXTENSIVE [-1] Maxim	un 3
Comments [metric=0]	1 3 1			- PATER STAFFE LT LANGE	8
6] GRADIENT (Tr/mi)	☐ VERY LOW -L		20 %GL		
	MODERATE [6		75] 04 pt	FFLE: [15]	m 6
DRAINAGE AREA (C. T.C. mi) HIGH-VERY	MGH[10-6] %RUN:	70KI	115	
					Tribita Przymia sy

DHW = 15' x 1,7"

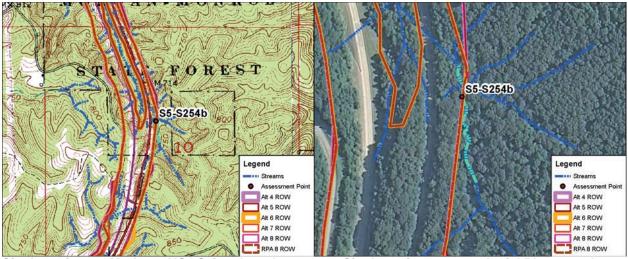
OWQ Biological Studies QHEI (Qualitative Habitat Evaluation Index)

COMMENT

116

☐ False bank ☐ Manure ☐ Lagoon BMPs | Construction | Sediment ☐ Logging ☐ Intigation ☐ Cooling □Wesh H,O □ Tie □ H,O Table How. | Netural | Sagnan Broken | Bank | Surface □ WWTP □ CSO □ NPDES ☐ Hardened ☐ Dirt & Grim □ Wettand □ Rark □ Golf Contaminated | Landi Atmospheric deposition Mine: Add Quany □ Inclustry □ Union □ Lawn □ Home E-1SSUES Lovert | One sicked | Both banks Stag: | Removed | Madified Spray | Estands | Scource Seministr | Young | Old Bedoact | Moving | Statute □ Impounded □ Destorated □ Pood control □ Drainage D-MAINTENANCE | Amounted | Stumps ☐ Responsive ☐ Colonies Active | Historic Public Phhoto Poot | > 100 R | > 3 R Person C-RECREATION dayu.vl Loding galeem(> 10m 3 readings < 10m, 1 reading hmidde); Round offen savest whole persent SO Se ☐ Stutye deposits ☐ CSOs/SSOs/Outfalls □ Nuksmæodar Mulanne algae 💛 Olishem Invesive macraphyse 🗎 Tresh/Liter \$0.00 mg B-AESTHETICS □ Mulcanne algae **Excess barbidly** Discoloration Foam/Sorm 8 * OF □ < 10% - Chand %55>-%0€ □ □ >85% - Open K 55% - < 155% 10% -< 30% A-CANOPY % apen

Stream Drawing:



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Intermittent
Evaluation Type: HHEI
Evaluation Score: 41

Legal Drain (Y/N): N **UTMN:** 14279076 ft

USGS Quadrangle: Modesto
Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 4.5 feet

OHWM Width: 4.5 feet
OHWM Depth: 0.8 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.09 sq

Watershed Area: 0.09 sq mi
Predominant Sub: Cobble/gravel

Stream S5-S254b – Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	155	0.02	1.06	
5	165	0.02	1.09	
6	165	0.02	1.08	
7	165	0.02	1.09	
8	165	0.02	1.09	
RPA 8	165	0.02	1.09	

Description of Potential Impact:

Impacts to S5-S254b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of coble, gravel, and boulder slabs. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S254b are on the second page of this form.



Photograph Taken Upstream



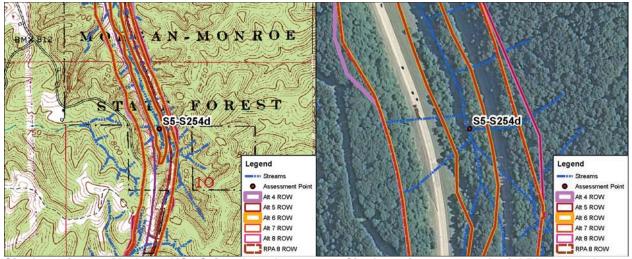
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S254b RIVER BASIN White River DRAINAGE AREA (mi²)	0.09
LENGTH OF STREAM REACH (ft) 200 LAT. 39.31882 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51002) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to This	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 20% SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] D LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0% 0%	Substrat
COBBLE (65 256 mm) [12 pts] 40% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] 10% MUCK [0 pts] 0% ARTIFICIAL [3 pts]	26
Table (Paraget and a Ca)	
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX = 3
 > 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 1.40 **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Conservation Tillage Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Ol	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) ✓ Wide >10m Moderate 5 10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
34.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10 m Ptoopplain Quality Moderate 5 10m Ptoopplain Quality Narrow <5m Ptoopplain Quality Residential, Park, New Field Ptoopplain Quality None Penced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10 m Ptoopplain Quality Moderate 5 10m Ptoopplain Quality Narrow <5m Ptoopplain Quality Residential, Park, New Field Ptoopplain Quality None Penced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	Width Max=30

ADDITIONAL STREAM	AM INFORMATION (This Information Must	Also be Completed):		S5-S254k
	FORMED? Yes No QHEI Score		ach Completed QHEI Forr	n)
			, , , , , , , , , , , , , , , , , , ,	,
WWH Name: Br	REAM DESIGNATED USE(S) yant Creek		Distance from Evaluat	ed Stream
CWH Name:	•		Distance from Evaluate	_
EWH Name:			Distance from Evaluate	ed Stream _
MAPPING	: ATTACH COPIES OF MAPS, INCLUDING TH	E <u>ENTIRE</u> WATERSHEI	DAREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle N	lame: Modesto	NRCS Soil Map F	Page: NRCS Soi	Map Stream Order
County: Monroe	Т-	ownship / City: Washi	ngton	
MISCELLA	ANEOUS			
Base Flow Condition	s? (Y/N):_Y Date of last precipitation:_	10/13/11	Quantity: 0.25	
Photograph Informat	ion: _			
Elevated Turbidity? (Y/N): _ N	0%		
Were samples collec	eted for water chemistry? (Y/N): N	te lab sample no. or id.	and attach results) Lab Nu	umber:
	Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (μm	hos/cm)
Is the sampling reach	n representative of the stream (Y/N) Y	not, please explain:		
Additional comments	s/description of pollution impacts:	,		
BIOTIC E	VALUATION			
Performed? (Y/N): _	(If Yes, Record all observations. Vo	·		
	ID number. Include appropriate field		imary Headwater Habitat A:	ssessment Manual)
Fish Observed? (Y/N	Voucher? (Y/N) N Salamande	ers Observed? (Y/N)	Voucher? (Y/N)	N
Frogs or Tadpoles O	bserved? (Y/N) N Voucher? (Y/N) N	Aquatic Macroinvertebra	tes Observed? (Y/N)	Voucher? (Y/N)
Comments Regardin	g Biology:			
	ING AND NARRATIVE DESCRIPTI			
Include impor	tant landmarks and other features of interes	st for site evaluation ar	nd a narrative descriptior	of the stream's location
_	See Stream Assessment	Form		
FLOW -	S5-S254b for site topo		,	
	aerial photograph, and	l resource pl	hotographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural **Stream Type:** Intermittent **Evaluation Type:** HHEI

Evaluation Score: 20 Legal Drain (Y/N): Ν

UTMN: 14279638 ft **UTME:** 1778632 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.3 feet
OHWM Depth:	0.3 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m
	- · · ·

Predominant Sub: Silt/gravel

Stream S5-S254d – Modified Class I PHWH					
Stream 55-52540 - Modified Class i Priwri					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	22	0.01	0.01		
5	22	0.01	0.01		
6	22	0.01	0.01		
7	22	0.01	0.01		
8	22	0.01	0.01		
RPA 8	22	0.01	0.01		

Description of Potential Impact:

Impacts to S5-S254d for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of silt and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S254d are on the second page of this form.



Photograph Taken Upstream



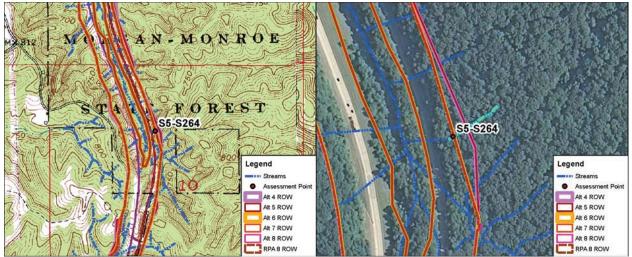
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S254d RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 22 LAT. 39.32036 LONG. RIVER CODE RIVER MILE	
DATE 07/10/12 SCORER BLA Inc. COMMENTS (Long: -86.51127) (Natural-Modified Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 70%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0% 0%	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2 64 mm) [9 pts]	15
Tatal of Danas along of	
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts] ✓ NO WATER OR MOIST CHANNEL [0 pts] 	
	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PROPERTY OF Bank) L R (Per Bank) V Wide > 10m Moderate 5 10m Noderate 5 10m > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 10 m (>	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 m Moderate 5 10 m Moderate 5 10 m Proper Pasture Pow Completed Urban or Industrial Field	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 m Moderate 5 10 m Moderate 5 10 m Proper Pasture Pow Completed Urban or Industrial Field	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] ✓ ≤ 1.0 m (Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Nature Forest, Wetland RIPARIAN WIDTH L R (Per Bank) Vide > 10 m Moderate 5 10 m Residential, Park, New Field Narrow < 5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermitter) Moderate 5 10 m (<=3' 3") [5 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] 2 1.0 m (<=3' 3") [5 pts] 3 1.0 m (<=3' 3") [5 pts] 4 1.0 m (<=3' 3") [5 pts] 5 1.0 m (<=3' 3") [5 pts] 6 1 m (<=3' 3") [5 pts] 7 2 m (<=3' 3") [5 pts] 7 3 m (<=3' 3") [5 pts] 7 4 8" (0 m) 8 1 m (<=3' 3") [5 pts] 9 1 m (<=3'	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 Mature Forest, Wetland Moderate 5 10m Narrow <5m None Residential, Park, New Field None COMMENTS Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) None water (Ephemeral) None water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30 5

ADDITIONAL STREA	AM INFORMATION (This Information M	lust Also be Completed):		S5-S254Q
QHEI PER	FORMED? Yes No QHEI Sco	ore (If Yes, At	tach Completed QHEI Form)	
DOWNSTF WWH Name: Br CWH Name:	REAM DESIGNATED USE(S) yant Creek		Distance from Evaluated S Distance from Evaluated S Distance from Evaluated S	tream
MAPPING	ATTACH COPIES OF MAPS, INCLUDING	G THE <u>ENTIRE</u> WATERSHE	ED AREA. CLEARLY MARK TH	E SITE LOCATION
USGS Quadrangle N	ame: Modesto	NRCS Soil Map	Page: NRCS Soil Ma	p Stream Order
County: Monroe		Township / City: Wash	nington	
MISCELLA Base Flow Conditions Photograph Informati		tion: 06/30/12	Quantity: 0.01	_
Elevated Turbidity? (N	100%		
Were samples collec	N	(Note lab sample no. or id	. and attach results) Lab Numb	ver:
	emp (°C) Dissolved Oxygen (m	g/l)pH (S.U.)	Conductivity (µmhos	/cm)
Is the sampling reach	representative of the stream (Y/N)	If not, please explain:		
Additional comments	/description of pollution impacts:			
BIOTIC E	VALUATION			
Performed? (Y/N): _	ID number. Include appropriate	e field data sheets from the F	nal. NOTE: all voucher samples r	
Fish Observed? (Y/N Frogs or Tadpoles Ol) N Voucher? (Y/N) N Salama bserved? (Y/N) N Voucher? (Y/N) N	anders Observed? (Y/N) Aquatic Macroinvertebr		oucher? (Y/N)
Comments Regarding	'' ''		N.	
DRAW	ING AND NARRATIVE DESCRI	PTION OF STREAM	REACH (This must be o	completed):
Include import	ant landmarks and other features of in	terest for site evaluation a	and a narrative description of	the stream's location
FLOW -	See Stream Assessmen	nt Form		
FLOW 4	S5-S254d for site to		-	
	aerial photograph.	and resource i	onotographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 21

Evaluation Score: 21 Legal Drain (Y/N): N

UTME: 1778879 ft **UTMN**: 14279660 ft

USGS Quadrangle: Section:	Modesto 10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.2 feet
OHWM Depth:	1.1 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Gravel/leaf pack

Stream S5-S264 – Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	113	0.01	0.16		
5	115	0.01	0.17		
6	36	0.01	0.01		
7	36	0.01	0.01		
8	36	0.01	0.01		
RPA 8	36	0.01	0.01		

Description of Potential Impact:

Impacts to S5-S264 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S264 are on the second page of this form.



Photograph Taken Upstream



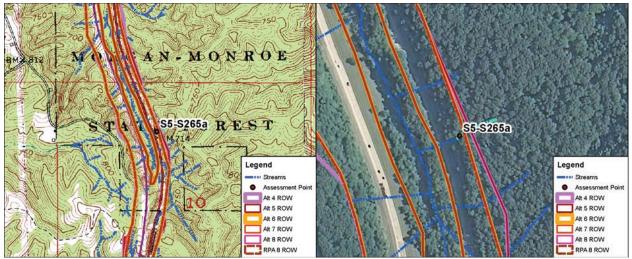
Photograph Taken Downstream



100.000	THIEF COOLS (Sum of metrics 1, 2, 3) :	
SITE NAME/LOCATION I-69 Section 5	5-S264 White Biver	24
SITE NUMBER S	55-S264 RIVER BASIN White River DRAINAGE AREA (mi²) 0.0	JI
ELITOTITOT OTTLE TUTTLE TOTT (II)	LAT. 39.32042 LONG. RIVER CODE RIVER MILE COMMENTS (Long: -86.51040) (Natural-Class I)	
NOTE: Complete All Items On This Forn	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ctions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL	VERY
	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
,	ant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE Metr
TYPE PI BLDR SLABS [16 pts]	ERCENT TYPE PERCENT 0% SILT [3 pt] 5%	Poin
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 30%	Cubote
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts]	Substra Max =
COBBLE (65 256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0% 0%	
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts]	5% MUCK [0 pts] 0% 0% ARTIFICIAL [3 pts] 0%	16
	THAT TO ME [O P.O]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the m	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool De
evaluation. Avoid plunge pools from road	d culverts or storm water pipes) (Check ONLY one box):	Max =
> 30 centimeters [20 pts] > 22.5 30 cm [30 pts]	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the		Bankfu
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=3
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW - 2.2' / 1.1'	AVERAGE BANKFULL WIDTH (meters): 0.80	5
RIPARIAN ZONE AND FLOODP	This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	_
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5 10m	Field	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop)
None	Fenced Pasture Mining or Construction	
COMMENTS		
FLOW REGIME (At Time of Eva	aluation) (Check ONLY one box):	
Stream Flowing	Moist Channel, isolated pools, no flow (Intermittent)	
Subsurface flow with isolated poo COMMENTS_Leaves indicat	ols (Interstitial)	
SINUOSITY (Number of bends p None	per 61 m (200 ft) of channel) (Check ONLY one box): 1.0	
0.5	1.5 2.5 >3	
STREAM GRADIENT ESTIMATE		
Flat (0.5 ft/100 ft)	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100) ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S264 <u>:</u>
QHEI PERFORMED? Yes V No QHEI Score (If Yes, A	ttach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHI	
USGS Quadrangle Name: Modesto NRCS Soil Map	
	hington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 05/10/06	Quantity: 0.89
Photograph Information: 95 Upstream / 96 Downstream / 97 Right Bank / 98 Left Ba	nk
Elevated Turbidity? (Y/N): N Canopy (% open): 15%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id	I. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:_	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections option ID number. Include appropriate field data sheets from the F	nal. NOTE: all voucher samples must be labeled with the site
Fish Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebut Comments Regarding Richard	Voucher? (Y/N) rates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM	· ·
Include important landmarks and other features of interest for site evaluation a	and a namative description of the stream's location
See Stream Assessment Form	
S5-S264 for site topographic map,	
aerial photograph, and resource p	hotographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 22

Legal Drain (Y/N): N

UTME: 1778754 ft **UTMN**: 14280009 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.9 feet
OHWM Depth:	0.9 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Gravel/leaf pack

Stream S5-S265a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	91	0.01	0.42
5	93	0.01	0.43
6	57	0.01	0.26
7	57	0.01	0.26
8	57	0.01	0.26
RPA 8	57	0.01	0.26

Description of Potential Impact:

Impacts to S5-S265a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S265a are on the second page of this form.



Photograph Taken Upstream



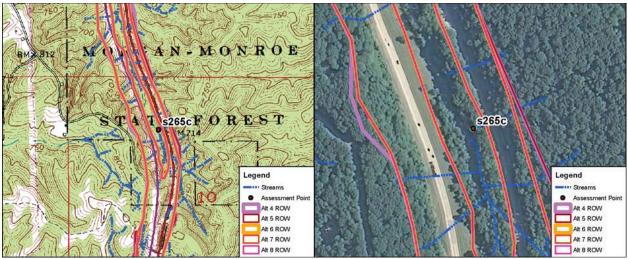
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBERS5-S265a RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32138 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long86.51084) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOMMODIFICATIONS:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BUDDER (>256 mm) [16 pts] BUDDER (>256 mm) [16 pts]	Points
□ BOULDER (>256 mm) [16 pts] 0% □ LEAF PACK/WOODY DEBRIS [3 pts] 25% □ BEDROCK [16 pt] 0% □ FINE DETRITUS [3 pts] 0%	Substrat
COBBLE (65 256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 0%	Max = 4
✓ GRAVEL (2 64 mm) [9 pts] 60% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	17
Table (Boundary) [e period Charles Charles	
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
	0
COMMENTS ephemeral reach MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.9' / 0.9' AVERAGE BANKFULL WIDTH (meters): 0.70	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R V V Wide >10m V V Mature Forest, Wetland Conservation Tillage	
Moderate 5 10m Immature Forest, Shrub or Old Urban or Industrial	
Field Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	p
None Fenced Pasture Mining or Construction	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS_	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
None 1.0 2.0 3.0 3.0 0.5 1.5 2.5 >3	
OTDE AM OD ADJENIT FORMATE	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	[*] O ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Co	ompleted):
QHEI PERFORMED? Yes ✓ No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE	
USGS Quadrangle Name: Modesto NRC	S Soil Map Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township / C	Machineton
MISCELLANEOUS	<u> </u>
	0/06 Quantity: 0.89
Photograph Information: 99 Upstream / 100 Downstream / 101 Right Ban	k / 102 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 15%	
Were samples collected for water chemistry? (Y/N): (Note lab samples collected for water chemistry?	ele no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please	e explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
· / =	ctions optional. NOTE: all voucher samples must be labeled with the site s from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Made	ed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF S	STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site of	valuation and a narrative description of the stream's location
See Stream Assessment Form	
S5-S265a for site topograp	nic map,
aerial photograph, and res	ource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural **Stream Type:** Ephemeral **Evaluation Type:** HHEI 30

Evaluation Score: Legal Drain (Y/N): Ν

UTME: 1778566 ft **UTMN:** 14279936 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.5 feet
OHWM Depth:	0.7 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m
D 1 1 40 1	- · · ·

Predominant Sub: Silt/gravel

Stream S5-S265c – Modified Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	36	0.01	0.00
5	36	0.01	0.00
6	36	0.01	0.00
7	36	0.01	0.00
8	36	0.01	0.00
RPA 8	36	0.01	0.00

Description of Potential Impact:

Impacts to S5-S265c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of silt and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S265c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



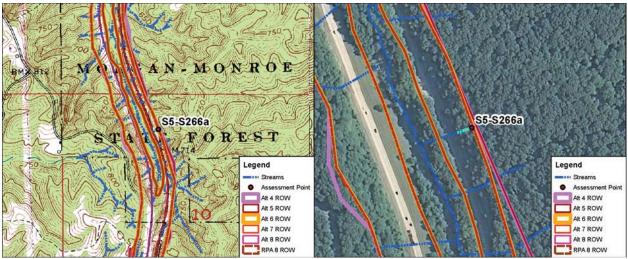
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S265c RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 36 LAT. 39.32118 LONG. RIVER CODE RIVER MILE	
DATE 07/10/12 SCORER BLA Inc. COMMENTS (Long: -86.51150) (Modified Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REC	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ ✓ SILT [3 pt] 60%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] BEDROCK [16 pt] D'W LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0%	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 4
GRAVEL (2 64 mm) [9 pts]	15
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
<pre></pre>	Width
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.5'/0.7' AVERAGE BANKFULL WIDTH (meters): 1.10 This information must also be completed	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.10 This information to must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 1.10 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) Vi Wide >10m Mature Forest, Wetland L R (Conservation Tillage	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 1.10 L R (Most Predominant per Bank) Mature Forest, Wetland Urban or Industrial	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Urban or Industrial	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Vide >10m Moderate 5 10m Narrow <5m None AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 1.10 AVERAGE BANKFUL	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Vide >10m Moderate 5 10m Narrow <5m None Residential, Park, New Field None COMMENTS AVERAGE BANKFULL WIDTH (meters): 1.10 AVERAGE BANKFULL WIDTH (meters): 1.10 L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Field Open Pasture, Row Crown Comments Mining or Construction COMMENTS	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Vide >10m Moderate 5 10m Narrow <5m None AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 1.10 AVERAGE BANKFUL	15 op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) ✓ Wide >10m Mature Forest, Wetland Moderate 5 10m None None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	15 op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	15 op
This information must also be completed RIPARIAN WIDTH RIPAR	15 op
COMMENTS OHW 2.5'/0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5 10m Mature Forest, Wetland Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	15 op
This information must also be completed RIPARIAN WIDTH RIPAR	Max=30 15

ADDITIONAL STREAM INFORMATION (This Information Mus	S5-S265c st Also be Completed):
QHEI PERFORMED? Yes V No QHEI Score	e(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	
	THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
	Township / City: Washington
MISCELLANEOUS Base Flow Conditions? (Y/N):_N _ Date of last precipitation	00/00/40
Photograph Information: 58 - Up, 59 - Down	
Elevated Turbidity? (Y/N): N Canopy (% open):	30%
Were samples collected for water chemistry? (Y/N): (N	lote lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l	pH (S.U.) Conductivity (μmhos/cm)
	If not, please explain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field by the state of the	Voucher collections optional. NOTE: all voucher samples must be labeled with the site eld data sheets from the Primary Headwater Habitat Assessment Manual) ders Observed? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) Voucher? (Y/N)
	TION OF STREAM REACH (This <u>must</u> be completed): rest for site evaluation and a narrative description of the stream's location

FLOW

See Stream Assessment Form S5-S265c for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 21

Legal Drain (Y/N): N **UTMN:** 14280295 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.7 feet OHWM Depth: 1.3 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/leaf pack

Stream S5-S266a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	108	0.01	0.49
5	110	0.01	0.50
6	92	0.01	0.42
7	92	0.01	0.42
8	92	0.01	0.42
RPA 8	92	0.01	0.42

Description of Potential Impact:

Impacts to S5-S266a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S266a are on the second page of this form.



Photograph Taken Upstream



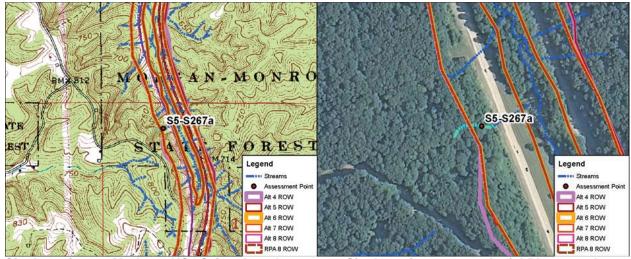
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S266a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 164 LAT. 39.32217 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51112) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	16
Table (Parantage)	
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
→ > 22.5 30 cm [30 pts] < 5 cm [5 pts]	0
COMMENTS ephemeral reach MAXIMUM POOL DEPTH (centimeters): 0	
MAXIMUM FOOL DEFTH (centiliteters).	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PROPERTY OF Bank) L R (Most Predominant per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide > 10m Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' AVERAGE BANKFULL WIDTH (meters): 0.82 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream № RIPARIAN WIDTH L R (Per Bank) Vide > 10 m (<=3' 3") [5 pts] > 1.0 m (-1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.82 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m (Most Predominant per Bank) Nature Forest, Wetland Moderate 5 10 m Immature Forest, Shrub or Old Urban or Industrial Field Narrow < 5 m Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field Open Pasture, Row Completed None Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Residential, Park, New Field Open Pasture, Row Completed Narrow < 5 m Residential, Park, New Field Open Pasture, Row Completed None Residential, Park, New Field Open Pasture, Row Completed None Mining or Construction Community Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Wide >10 m Wide >10 m Wide >10 m Woderate 5 10 m Narrow <5 m Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Wide >10 m Moderate 5 10 m Narrow <5 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 2.7' / 1.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Wide >10 m Wide >10 m Wide >10 m Woderate 5 10 m Narrow <5 m Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Width Max=30 5

ADDITIONAL STREAM I	NFORMATION (This Informate	tion Must Also be Completed):	<u>.</u>	55-5266a
QHEI PERFOR	MED? Yes ✓ No QH	El Score (If Yes, Af	ttach Completed QHEI Form	1)
DOWNSTREA WWH Name: Bryant CWH Name: EWH Name:	M DESIGNATED USE(S)		Distance from Evaluate Distance from Evaluate Distance from Evaluate	d Stream _
	TACH COPIES OF MAPS, INCL	UDING THE <u>ENTIRE</u> WATERSHI		_
USGS Quadrangle Name		NRCS Soil Map		Map Stream Order 1
County: Monroe			hington	
MISCELLANE	ous			
Base Flow Conditions? (//N):_Y Date of last pre	ecipitation: 05/10/06	Quantity: 0.89	
		ream / 105 Right Bank / 106 Le	ft Bank	
Elevated Turbidity? (Y/N)	N	000/		
Were samples collected	for water chemistry? (Y/N): _N	(Note lab sample no. or id	l. and attach results) Lab Nu	ımber:
	o (°C) Dissolved Oxyg		Conductivity (µml	nos/cm)
Is the sampling reach rep	presentative of the stream (Y/N	Y If not, please explain:_		
Additional comments/des	cription of pollution impacts:			
BIOTIC EVAL	UATION			
Performed? (Y/N): _N		ations. Voucher collections option		
Fish Observed? (Y/N) Frogs or Tadpoles Obser		Salamanders Observed? (Y/N) Aquatic Macroinverteb	Voucher? (Y/N)	Voucher? (Y/N)
Comments Regarding Bio	` /	Aquatic Macionivertosi	lates observed: (1714)	voucitor: (1714)
DRAWING	AND NARRATIVE DES	SCRIPTION OF STREAM	RFACH (This must b	e completed):
		s of interest for site evaluation a	-	
FLOW →	ee Stream Asses	sment Form		
S		e topographic ma		
а	erial photograp	h, and resource	photographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 35

Legal Drain (Y/N): N **UTMN:** 14280504 ft

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.1 feet OHWM Depth: 1.2 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/sand

Stream S5-S267a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	127	0.01	0.58
5	125	0.01	0.57
6	125	0.01	0.57
7	125	0.01	0.57
8	125	0.01	0.57
RPA 8	125	0.01	0.57

Description of Potential Impact:

Impacts to S5-S267a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S267a are on the second page of this form.



Photograph Taken Upstream



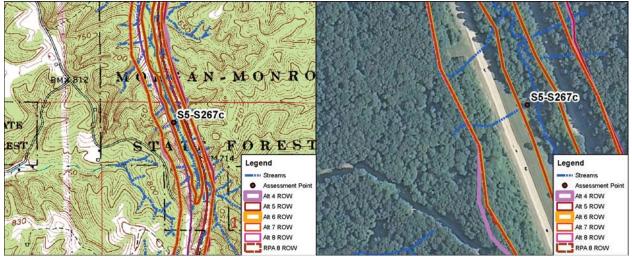
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	<u> </u>	
SITE NUMBER S5-S267a	RIVER BASIN White River DRAINAGE AREA (mi²) 0.01	
LENGTH OF STREAM REACH (ft) 200 LAT. 39		
DATE 05/10/06 SCORER A Rogers Co	OMMENTS (Long: -86.51371) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer	to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction	ions
STREAM CHANNEL NONE / NATURAL CH	HANNEL RECOVERED RECOVERING RECENT OR NO RECOVE	ERY
	substrate present. Check ONLY two predominant substrate TYPE boxes	
,	M	HHE Ietri
BLDR SLABS [16 pts] 0%		oint
BOULDER (>256 mm) [16 pts] 0%	LEAF PACK/WOODY DEBRIS [3 pts] 10% FINE DETRITUS [3 pts] 0% Su	ubstrat
BEDROCK [16 pt] 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	LILI FINE DEIRIIUS 13 ptsi	lax = 4
GRAVEL (2 64 mm) [9 pts] 60%	MICK (0 pte) 0%	
SAND (<2 mm) [6 pts] 20%	ARTIFICIAL [3 pts]	20
Total of Percentages of 0.00%	(A) Substrate Percentage Check 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TY	_	
		ool Den
 Maximum Pool Depth (Measure the maximum p evaluation. Avoid plunge pools from road culverts of 		וססו טep lax = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	
> 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts]	< 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS ephemeral reach		
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of > 4.0 meters (> 13') [30 pts]	(3113113)	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]		//ax=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW - 2.1' / 1.2'	AVERAGE BANKFULL WIDTH (meters): 1.20	15
T RIPARIAN ZONE AND FLOODPLAIN QUA	This information must also be completed ALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
	DPLAIN QUALITY	
L R (Per Bank) L R	(Most Predominant per Bank) L R	
	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5 10m	Field	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop	
None	Fenced Pasture Mining or Construction	
COMMENTS	<u>l</u>	
FLOW REGIME (At Time of Evaluation) (C		
Stream Flowing Subsurface flow with isolated pools (Interstit	Moist Channel, isolated pools, no flow (Intermittent) tial) Dry channel, no water (Ephemeral)	
COMMENTS_		
SINUOSITY (Number of bends per 61 m (2		
None 1.0 1.5	2.0 3.0 >3	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Mod	derate (2 ft/100 ft)	
	= 100 to 10 (10 10 10 1)	

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S267a
QHEI PERFORMED? Yes ✓ No QHEI Score (If Yes, At	
	addi completed aria i omij
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	ED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map	Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township / City: Wash	nington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation: 05/10/06	Quantity: 0.89
Photograph Information: 185 Upstream / 186 Downstream / 187 Right Bank / 188 Le	ft Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 30%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id	. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	_
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections option ID number. Include appropriate field data sheets from the P	nal. NOTE: all voucher samples must be labeled with the site Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebr	Voucher? (Y/N) rates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	reasile:: (III)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM	REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation a	
See Stream Assessment Form	
S5-S267a for site topographic map	0,
aerial photograph, and resource p	

Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: USGS Quadrangle: Modesto Stream **Stream Name:** Unnamed Trib. Bryant Ck Section: Quarter: NW Township: T10N IDEM 303(d) List: R₁W N/A Range: Watershed: 05120201180 **OHWM Width:** 1.1 feet **OHWM Depth:** Channelized/Type: 0.3 feet No/Natural **Stream Type:** USCOE Jurisdiction: Yes **Ephemeral Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 20 **Watershed Area:** 0.01 sq mi Legal Drain (Y/N): Ν **Predominant Sub:** Gravel/silt

UTME: 1778181 ft	UTMN:	14280610 ft
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Stream S5-S267c - Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	13	0.01	0.01
5	13	0.01	0.01
6	13	0.01	0.01
7	13	0.01	0.01
8	13	0.01	0.01
RPA	13	0.01	0.01

Description of Potential Impact:

Impacts to S5-S267c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and silt. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S267c are on the second page of this form.



Photograph Taken Upstream



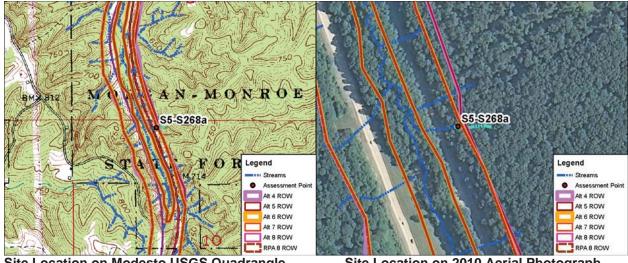
Photograph Taken Downstream



SITE NAMELOCATION		
LENGTH OF STREAM REACH (N) 13 LAT, 39.32221 LONG. RIVER RODE RIVER MILE DATE 05/10/06 SCORER A Rogers (LONGMENTS (LONG: -86.51284) (Natural-Modified Class I) NOTE: Complete All them On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NOTE: Complete All them On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NOTE: Complete All them On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NOTE: Complete All them On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NOTE: Complete All them On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NOTE: Complete All them On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NOTE: Complete All them On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for PECCENT 170 PH 170 PhWH 17	SITE NUMBER S5-S267c RIVER BASIN White River DRAINAGE AREA (mi²) 0.01	1
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL		
STREAM CHANNEL	DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51284) (Natural-Modified Class I)	
SUBSTRATE (Estimate percent of every type of substrate present. Check ONL Y two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. PERCENT (Max of 32). Add total number of significant substrate types for the percent of the perce	NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruc	tions
Comments		'ERY
Metric Point Percent Percent Percent Point		
BOULDER 2566 mm 16 pts 0%	TYPE PERCENT TYPE PERCENT	Metri
BEDROCK [16 pt]	BEDIT SEADS [10 pts]	oints
COBBLE (65 256 mm) 12 pts 0% 0% 0% 0% 0% 0% 0% 0	BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 5%	
SAND <2 mm (6 pts) 0%		Max = 4
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 Maximum Pool Depth (Measure the maximum pool depth within the 6f meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 son [20 pts] > 10 22.5 son [25 pts] > 10 22.5 son [25 pts] > 10 22.5 son [25 pts] > 10 22.5 son [25 pts] > 10 22.5 son [27 pts] > 10 22.5 son [28 pts]	MOOK [o pts]	15
Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culvers or storm water pipes) (Check ONL/ one box):	SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts]	
### SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONL Y one box): > 30 centimeters (20 pts) > 55 cm - 10 cm (15 pts) > 5 cm 50 c	Total of Ferentiages of ()-()(% (A)	A + B
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check OALY one box): > 30 centimeters [20 pts]		
30 centimeters 20 pts > 5 cm 10 pts > 5 cm 10 pts > 0		
22.5 m 30 cm 30 pts		Max = 3
COMMENTS BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): >4.0 meters (> 13') [30 pts] >4.0 meters (> 13') [30 pts] >3.0 m -4.0 m (> 9' 7' -13') [25 pts] >1.5 m -3.0 m (> 9' 7' -4' 8") [20 pts] COMMENTS OHW -1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Crop None None Fenced Pasture Mining or Construction COMMENTS SIRVARGE BANKFULL WIDTH (meters): 0.34 5 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Open Pasture, Row Crop None None SIRVARGE BANKFULL WIDTH (meters): 0.34 5 This information must also be completed RIPARIAN WIDTH (Flood River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Open Pasture, Row Crop None Open Pasture, Row Crop Mining or Construction COMMENTS SIRVARGE BANKFULL WIDTH (meters): 0.34 5 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be completed RIPARIAN WIDTH (meters): 0.34 This information must also be complet	> 22.5 30 cm [30 pts] < 5 cm [5 pts]	_
Bank Full WiDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): > 4.0 meters (> 13) [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4" 8") [20 pts] COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters): 0.34 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY *NOTE: River Left (L) and Right (R) as looking downstream *\frac{1}{2} \text{RIPARIAN WIDTH} FLOODPLAIN QUALITY} \[\begin{array}{c ccccccccccccccccccccccccccccccccccc	> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	U
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8') [20 pts] COMMENTS OHW - 1.1' / 0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Immature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Residential, Park, New Field Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 3.0 STREAM GRADIENT ESTIMATE	COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
Sand		
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream → RIPARIAN WIDTH FLOODPLAIN QUALITY Anote: River Left (L) and Right (R) as looking downstream → RIPARIAN WIDTH FLOODPLAIN QUALITY Andure Forest, Wetland Conservation Tillage mature Forest, Wetland Conservation Tillage mature Forest, Shrub or Old Field Open Pasture, Row Crop None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 >3.0 —3.0 —3.0 —3.0 —3.0 —3.0 —3.0 —3.0 —3.0 —3.0 —3.0 —3.0 —3.0 —3.0 —3		
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS FLOODPLAIN QUALITY Mature Forest, Wetland Urban or Industrial Field Open Pasture, Row Crop Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0 >3.0		
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5 10m Moderate 5 10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE	COMMENTS OHW - 1.1' / 0.3' AVERAGE BANKFULL WIDTH (meters): 0.34	5
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank)		
RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Immature Forest, Wetland Woderate 5 10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 2.0 3.0 3.0 STREAM GRADIENT ESTIMATE		
Wide >10m		
Moderate 5 10m		
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 V 0.5 3.0 >3 STREAM GRADIENT ESTIMATE	Immature Forest Shrub or Old	
None Fenced Pasture Mining or Construction	——————————————————————————————————————	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE	Narrow <5m Residential, Park, New Field Open Pasture, Row Crop	
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 2.5 STREAM GRADIENT ESTIMATE	None Destruction	
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 2.0 3.0 2.5 STREAM GRADIENT ESTIMATE		
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.5 STREAM GRADIENT ESTIMATE	COMMENTS	
None	FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	
None	FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
	FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS Only one box: Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
☐ Flat (0.5 ft/100 ft) ☐ Flat to Moderate ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)	FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	
	FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 5TREAM GRADIENT ESTIMATE	

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Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural **Stream Type:** Ephemeral **Evaluation Type:** HHEI 28

Evaluation Score: Legal Drain (Y/N): Ν

UTME: 1778412 ft **UTMN:** 14280875 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	3.0 feet
OHWM Depth:	0.9 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.02 sq mi
Prodominant Sub-	Graval/alay

Predominant Sub: Gravel/clay

Stream S5-S268a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	62	0.01	0.29
5	65	0.01	0.30
6	45	0.01	0.21
7	45	0.01	0.21
8	45	0.01	0.21
RPA 8	45	0.01	0.21

Description of Potential Impact:

Impacts to S5-S268a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and clay. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S268a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

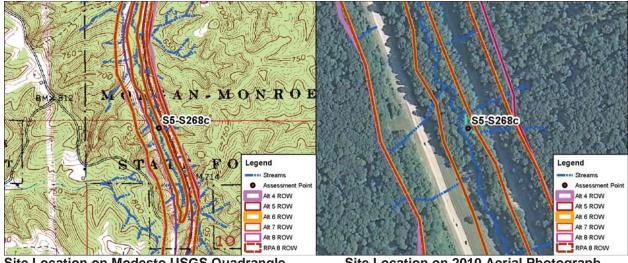


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SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S268a RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32376 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51203) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% FINE DETRITUS [3 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 30%	Max = 40
GRAVEL (2 64 mm) [9 pts] 0% MUCK [0 pts]	13
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	0
COMMENTS ephemeral reach MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	I
	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] < 1.0 m (<=3' 3") [5 pts] < 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 3.0' / 0.9' AVERAGE BANKFULL WIDTH (meters): 1.20 This information must also be completed	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 3.0' / 0.9' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 3.0' / 0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
Source Signal S	Width Max=30
Solution	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH CHEER PROOF AND FLOODPLAIN QUALITY RIPARIAN WIDTH CHEER PROOF AND FLOODPLAIN QUALITY CONSERVATION TILINGS CONSERVATION TILINGS CONSERVATION TILINGS COMMENTS COMMENTS AVERAGE BANKFULL WIDTH (meters): 1.20 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY CONSERVATION TILINGS CONSERVATION TILINGS CONSERVATION TILINGS CONSERVATION TILINGS CONSERVATION TILINGS COMMENTS COMMENTS AVERAGE BANKFULL WIDTH (meters): 1.20	Width Max=30
S 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] S 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 3.0' / 0.9' AVERAGE BANKFULL WIDTH (meters): 1.20 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predo	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 3.0' / 0.9' AVERAGE BANKFULL WIDTH (meters): 1.20 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
S 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] S 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 3.0' / 0.9' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Residential, Park, New Field None None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Moderate 5 10m Narrow <5m None None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS AVERAGE BANKFULL WIDTH (meters): 1.20 AVERAGE BANKFULL WIDTH (meters): 1.20 AVERAGE BANKFULL WIDTH (meters): 1.20 L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage Immature Forest, Shrub or Old Immatu	Width Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Most Predominant per Bank) Wide >10m Moderate 5 10m Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m None Fenced Pasture Flow REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30
Sinuosity (Number of bends per 61 m (200 ft) of channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral) Sinuosity (Number of bends per 61 m (200 ft) of channel) Sinuosity (Number of bends per 61 m (200 ft) of channel) Sinuosity (Number of bends per 61 m (200 ft) of channel) Comments Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): Sinuosity (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None	Width Max=30 15 rop t)

ADDITIONAL STR	REAM INFORMATION (This Information Must Als	so be Completed):		55-52686
QHEI PE	ERFORMED? Yes No QHEI Score	(If Yes, Atta	ach Completed QHEI Form)	
DOWNS WWH Name: CWH Name: EWH Name:	BTREAM DESIGNATED USE(S) Bryant Creek		Distance from Evaluated Stre Distance from Evaluated Stre Distance from Evaluated Stre	eam _
	IG: ATTACH COPIES OF MAPS, INCLUDING THE E		_	
USGS Quadrangle		NRCS Soil Map F		
County: Monroe		nship / City: Washi	ngton	
MISCEL	LANEOUS			
Base Flow Condition	ons? (Y/N): Y Date of last precipitation:	05/10/06	Quantity: 0.89	
	nation: 107 Upstream / 108 Downstream / 109 R	ight Bank / 110 Left	Bank	
Elevated Turbidity	? (Y/N): N Canopy (% open): 25	%		
Were samples coll	lected for water chemistry? (Y/N): (Note la	ab sample no. or id. a	and attach results) Lab Number	:
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmhos/cr	m)
	ach representative of the stream (Y/N) If no	t, please explain:		
BIOTIC Performed? (Y/N): Fish Observed? (YFrogs or Tadpoles Comments Regard	ID number. Include appropriate field da //N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aqui	ta sheets from the Pri	imary Headwater Habitat Assessn Voucher? (Y/N)	
	WING AND NARRATIVE DESCRIPTION ortant landmarks and other features of interest for		-	
	See Stream Assessment Fo	orm		
FLOW	S5-S268a for site topogr	_		
	aerial photograph, and m	resource ph	notographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Legal Drain (Y/N):

Watershed: 05120201180 Channelized/Type: No/Natural Ephemeral **Stream Type: Evaluation Type:** HHEI **Evaluation Score:** 38

UTME: 1778184 ft **UTMN:** 14280873 ft

Ν

USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 6.0 feet OHWM Depth: 0.4 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes 0.02 sq mi Watershed Area: Gravel/sand **Predominant Sub:**

Stream S5-S268c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	154	0.02	0.09
5	154	0.02	0.09
6	154	0.02	0.09
7	154	0.02	0.09
8	154	0.02	0.09
RPA 8	154	0.02	0.09

Description of Potential Impact:

Impacts to S5-S268c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest within the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S268c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

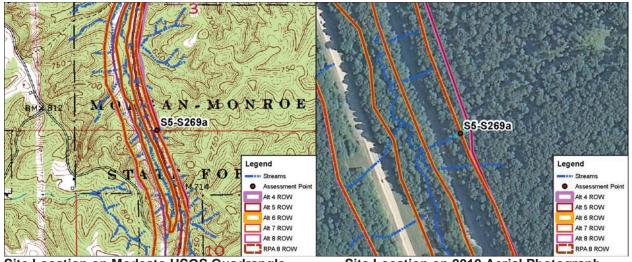


38

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S268C RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 150 LAT. 39.32376 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51284) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to This	structions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RIMODIFICATIONS:	ECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	⊥ HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 40
✓ GRAVEL (2 64 mm) [9 pts] 75% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	18
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5 10m Noderate 5 10m Noderate 5 10m Moderate 5 10m V Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide > 10m Moderate 5 10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30 20
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Vide >10m Mature Forest, Wetland Moderate 5 10m Narrow <5m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONL Y one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittee	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Wide	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 6'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Narrow <5m None Residential, Park, New Field Open Pasture, Row. None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 1.0 Check ONLY one box): None Check ONLY one box): None 1.0 Check ONLY one box): None Check ONLY one box): None 1.0 3.0	Width Max=30 20 Crop on ant)

ADDITIONAL ST	REAM INFORMATION (This Information Must Also	be Completed):		2	55-52680
	ERFORMED? Yes No QHEI Score		n Completed QHEI For	m)	
DOWN	STREAM DESIGNATED USE(S)				
	Bryant Creek		Distance from Evaluation	ted Stream	1.04
CWH Name: _			Distance from Evaluat	ed Stream _	
EWH Name: _			Distance from Evaluate	ed Stream _	
MAPPII	NG: ATTACH COPIES OF MAPS, INCLUDING THE E	NTIRE WATERSHED A	AREA. CLEARLY MAR	K THE SITE LOC	ATION
USGS Quadrangle	e Name:_Modesto	NRCS Soil Map Paç	ge: NRCS So	il Map Stream O	rder
County: Monroe	Town	ship / City: Washing	yton		
MISCEL	LLANEOUS				
Base Flow Condit	ions? (Y/N):_Y Date of last precipitation:	04/24/12	Quantity: 0.15	5	
Photograph Inform	nation:				
Elevated Turbidity		%			
Were samples co	llected for water chemistry? (Y/N): N (Note la	b sample no. or id. an	d attach results) Lab N	umber:	
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (μπ	nhos/cm)	
Is the sampling re	ach representative of the stream (Y/N)	, please explain:			
Additional comme	ents/description of pollution impacts:				
BIOTIC	EVALUATION				
Performed? (Y/N)	-				
	ID number. Include appropriate field dat		N	ssessment Manu	al)
Fish Observed? (`Frogs or Tadpoles	Y/N) N Voucher? (Y/N) N Salamanders C s Observed? (Y/N) N Voucher? (Y/N) N Aqua	Observed? (Y/N) Note: National Research Control of the control of	Voucher? (Y/N)	Voucher? (Y/ľ	N N
Comments Regar	1 1 1 1 1 1 1 1 1 1		IN .		
DRA	AWING AND NARRATIVE DESCRIPTION	OF STREAM RE	ACH (This must	be complete	d):
	portant landmarks and other features of interest fo		•	•	•
_	See Stream Assessment For	m			
FLOW -	S5-S268c for site topogra	phic map,			
	aerial photograph, and re		cographs		





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: SW
Range: R1W

Range: R1W
Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 28

Evaluation Score: 28
Legal Drain (Y/N): N

UTME: 1778364 ft **UTMN:** 14281039 ft

USGS Quadrangle:	Modesto
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Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.0 feet
OHWM Depth: 0.9 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq n

Watershed Area: 0.01 sq mi Predominant Sub: Gravel/clay

0, 0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,				
	Stream S5-S269a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	92	0.01	0.35	
5	94	0.01	0.36	
6	39	0.01	0.15	
7	39	0.01	0.15	
8	39	0.01	0.15	
RPA 8	39	0.01	0.15	

Description of Potential Impact:

Impacts to S5-S269a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and clay. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S269a are on the second page of this form.



Photograph Taken Upstream



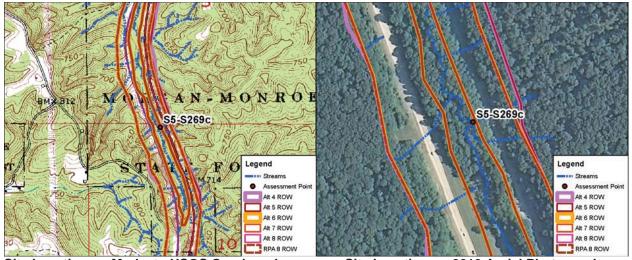
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S269a RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 181 LAT. 39.32421 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51219) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 5% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 5%	Point
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 35%	Max = 4
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	13
Total of Percentages of Once (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	A 1 5
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS ephemeral reach MAXIMUM POOL DEPTH (centimeters): 0	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	IVIAX=30
COMMENTS OHW - 3.0' / 0.9' AVERAGE BANKFULL WIDTH (meters): 1.40	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5 10m Immature Forest, Shrub or Old Urban or Industrial	
Field —— Open Pasture Pow Cr	ор
Narrow <5m Residential, Park, New Field	•
None Fenced Pasture Mining or Construction COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermittent Dry channel, no water (Ephemeral))
COMMENTS	1
COMMENTO_	L
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	L
	L
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): None 1.0 2.0 3.0 0.5 1.5 2.5 3	L
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	00 ft)

ADDITIONAL STREAM	M INFORMATION (This Information Must Also be Completed):	53-5269a
QHEI PERFO	ORMED? Yes No QHEI Score (If Yes, Atta	ach Completed QHEI Form)
DOWNSTRE WWH Name: Brya CWH Name:	EAM DESIGNATED USE(S) ant Creek	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: A	ATTACH COPIES OF MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHEI	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Nar	me: Modesto NRCS Soil Map F	Page: 3 NRCS Soil Map Stream Order 1
County: Monroe		ington
MISCELLAN		Quantity: 0.89
Base Flow Conditions?		Quantity
Photograph Information	n: 111 Upstream / 112 Downstream / 113 Right Bank / 114 Left	t Bank
Elevated Turbidity? (Y/		
Were samples collected	ed for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Ter	emp (°C) Dissolved Oxygen (mg/l) pH (S.U.) _	Conductivity (µmhos/cm)
Is the sampling reach re	representative of the stream (Y/N) Y If not, please explain:	
Additional comments/d	description of pollution impacts:	
BIOTIC EVA	ALUATION	
Performed? (Y/N): _N	(If Yes, Record all observations. Voucher collections optiona ID number. Include appropriate field data sheets from the Pr	•
Fish Observed? (Y/N) Frogs or Tadpoles Obs	served? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebra	Voucher? (Y/N) ates Observed? (Y/N) Voucher? (Y/N)
Comments Regarding E	Biology:	
DRAWI	NG AND NARRATIVE DESCRIPTION OF STREAM F	REACH (This <u>must</u> be completed):
Include importar	nt landmarks and other features of interest for site evaluation a	nd a narrative description of the stream's location
FLOW T	See Stream Assessment Form	
2	S5-S269a for site topographic map	
á	aerial photograph, and resource p	hotographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Legal Drain (Y/N):

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 38

UTME: 1778171 ft **UTMN**: 14280956 ft

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USGS Quadrangle: Modesto Section: 10 Township: T10N IDEM 303(d) List: N/A OHWM Width: 5.5 feet OHWM Depth: 0.35 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi **Predominant Sub:** Gravel/sand

Stream S5-S269c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	12	0.01	0.01
5	12	0.01	0.01
6	12	0.01	0.01
7	12	0.01	0.01
8	12	0.01	0.01
RPA 8	12	0.01	0.01

Description of Potential Impact:

Impacts to S5-S269c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S269c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

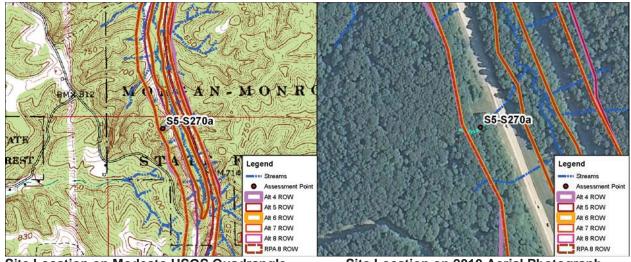


38

SITE NAME/LOCATION I-69 Section 5				
SITE NUMBER S5-S269c RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.01			
LENGTH OF STREAM REACH (ft) 12 LAT. 39.32399 LONG. RIVER CODE RIVER MILE				
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51288) (Natural-Class I)				
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions			
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY			
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65 256 mm) [12 pts] GRAVEL (2 64 mm) [9 pts] GRAVEL (2 64 mm) [6 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock Bldr Slabs, Boulder, Cobble, Bedrock Own Substrate Percentage (A) Check ONLY two predominant substrate TYPE boxes (Max of 8). Final metric score is sum of boxes A & B. PERCENT O% SILT [3 pt] O% CLAY or HARDPAN [0 pt] O% OWN ARTIFICIAL [3 pts] OWN Substrate Percentage (Check 100%)	HHEI Metric Points Substrate Max = 40 18			
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3				
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	Pool Depth Max = 30			
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0				
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Bankfull Width Max=30			
COMMENTS OHW = 5.5'/0.4' AVERAGE BANKFULL WIDTH (meters): 1.70	20			
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Check ONLY one box): Stream Flowing Moterate S 10m This information must also be completed RIPARIAN WIDTH ANOTE: River Left (L) and Right (R) as looking downstream And the second completed RIPARIAN WIDTH ANOTE: River Left (L) and Right (R) as looking downstream And the second completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as l				
Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0				
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)			

ADDITIONAL STREA	M INFORMATION (This Information Must Also be Completed):		-52690
QHEI PERF	FORMED? Yes No QHEI Score (If Yes, At	ttach Completed QHEI Form)	
DOWNSTR	REAM DESIGNATED USE(S)		
WWH Name: Bry		Distance from Evaluated Stream 1.0	3
CWH Name: _		_ Distance from Evaluated Stream _	
EWH Name:		Distance from Evaluated Stream	
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	ED AREA. CLEARLY MARK THE SITE LOCATION	ON
USGS Quadrangle Na	ame: Modesto NRCS Soil Map	Page: NRCS Soil Map Stream Order	
County: Monroe	Township / City: Wash	hington	
MISCELLA	NEOUS		
Base Flow Conditions	s? (Y/N): Y Date of last precipitation: 04/24/12	Quantity: 0.15	
Photograph Information	on:		
Elevated Turbidity? (Y	Y/N): N Canopy (% open): 20%		
Were samples collect	ted for water chemistry? (Y/N): N (Note lab sample no. or id.	. and attach results) Lab Number:	
Field Measures: To	emp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach	representative of the stream (Y/N)		
	· , ,		
Additional comments/	/description of pollution impacts:		
BIOTIC EV	/ALUATION		
Performed? (Y/N):	(If Yes, Record all observations. Voucher collections option	nal. NOTE: all voucher samples must be labeled v	with the site
	ID number. Include appropriate field data sheets from the P	rimary Headwater Habitat Assessment Manual)	
Fish Observed? (Y/N)	N Voucher? (Y/N) N Salamanders Observed? (Y/N)	Voucher? (Y/N)	
Frogs or Tadpoles Ob	oserved? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebr	rates Observed? (Y/N) Voucher? (Y/N)	
Comments Regarding	111	N .	
	•		
DRAW	ING AND NARRATIVE DESCRIPTION OF STREAM	DEACH (This must be completed).	
Include importa	ant landmarks and other features of interest for site evaluation a	and a narrative description of the stream's lo	cation
FLOW -	See Stream Assessment Form		
FLOW -	S5-S269c for site topographic may	p,	
	aerial photograph, and resource	photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 19

Legal Drain (Y/N): N

UTME: 1777824 ft **UTMN**: 14280786 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	1.1 feet
OHWM Depth:	0.9 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Predominant Sub:	Clay/gravel

Class I PHWH

Elmpact (acres) Riparian Impact (ac

Stream S5-S270a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	153	0.01	0.66
5	150	0.01	0.65
6	150	0.01	0.65
7	150	0.01	0.65
8	150	0.01	0.65
RPA 8	150	0.01	0.65

Description of Potential Impact:

Impacts to S5-S270a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S270a are on the second page of this form.



Photograph Taken Upstream



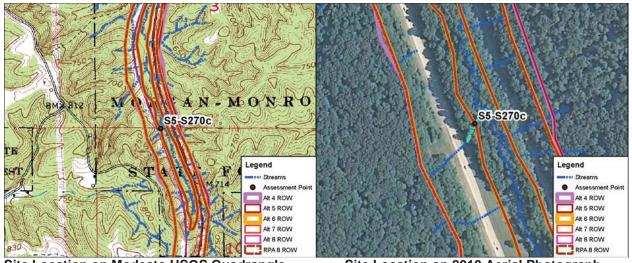
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S270a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 175 LAT. 39.32353 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51411) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI
BLDR SLABS [16 pts] 0% SILT [3 pt] 5%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] O% LEAF PACK/WOODY DEBRIS [3 pts] 5% O% FINE DETRITUS [3 pts] O%	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 55%	Max = 4
GRAVEL (2 64 mm) [9 pts]	14
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
	0
COMMENTS ephemeral reach MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 1.1' / 0.9' AVERAGE BANKFULL WIDTH (meters): 0.34	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	
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RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5 10m Moderate 5 10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (T) Moderate 5 10m Moderate 5 10m Moderate 5 10m Moderate 5 10m	rop
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Conservation Tillage Immature Forest, Shrub or Old Field Residential, Park, New Field Mining or Construction	•
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RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Subsurface flow with isolated pools (Interstitial) PLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per	
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RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Right (R) as looking downstream And Riparity (L) and Ripari	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank)	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** **NOTE: River Left (L) and Right (R) as looking downstream ** River Left (L) and Right (R) as looking downstream ** River Left (L) and Right (R) as looking downstream ** **NOTE: River Left (L) and Right (R) as looking downstream ** **RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Immature Forest, Wetland Conservation Tillage Work Field Open Pasture, Row C Mining or Construction Comments Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral)) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 3.0	nt)

ADDITIONAL STREAM INFORMATION (This Information Must Also be	Completed):
QHEI PERFORMED? Yes ✓ No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIR	
Madasta	RCS Soil Map Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township	Weekington
MISCELLANEOUS	,
Base Flow Conditions? (Y/N):Y Date of last precipitation:0	5/10/06 Quantity: 0.89
Photograph Information: 181 Upstream / 182 Downstream / 183 Right I	Bank / 184 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 25%	
Were samples collected for water chemistry? (Y/N): N (Note lab sa	mple no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, ple	ase explain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field data sh Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed	llections optional. NOTE: all voucher samples must be labeled with the site eets from the Primary Headwater Habitat Assessment Manual) erved? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF	STREAM REACH (This must be completed):
Include important landmarks and other features of interest for sit	· — · ·
See Stream Assessment Form S5-S270a for site topograp	
aerial photograph, and res	_

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural **Stream Type:** Ephemeral **Evaluation Type:** HHEI **Evaluation Score:** 33

Legal Drain (Y/N): Ν

UTME: 1778010 ft **UTMN:** 14281020 ft

USGS Quadrangle:	Modesto
Section:	10
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	3.8 feet
OHWM Depth:	0.7 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq mi
Donald and to and Oak	O. , .

Predominant Sub: Clay/gravel

Stream S5-S270c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	202	0.02	0.10
5	202	0.02	0.10
6	202	0.02	0.10
7	202	0.02	0.10
8	202	0.02	0.10
RPA 8	202	0.02	0.10

Description of Potential Impact:

Impacts to S5-S270c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest within the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S270c are on the second page of this form.



Photograph Taken Upstream



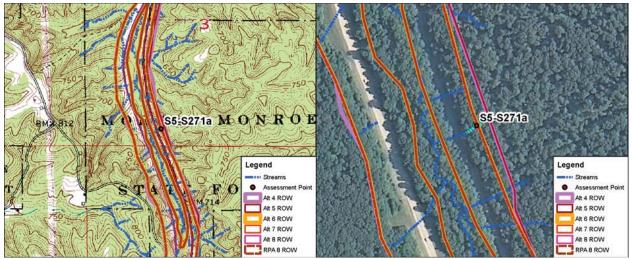
Photograph Taken Downstream



SITE NUMBER S5-S270C RIVER BASIN White River DRAINAGE AREA (mi²) 0.01 LENGTH OF STREAM REACH (ft) 200 LAT. 39.32417 LONG. RIVER CODE RIVER MILE DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51345) (Natural-Class I) NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] 90% RECENT TYPE SILT [3 pt] 90% PERCENT SUBSTRATE TYPE SUBSTRATE TYPE SUBSTRATE TYPE SUBSTRATE TYPE SUBSTRATE TYPE SUBSTRATE TYPES: 4 COBBLE (65 256 mm) [16 pts] 90% CLAY or HARDPAN [0 pt] 60% O% O% OS BIdr Slabs, Boulder, Cobble, Bedrock SAND (<2 mm) [6 pts] 15% ARTIFICIAL [3 pts] 90% OS CORDEN SERVED S	SITE NAME/LOCATION I-69 Section 5	
LENGTH OF STREAM REACH (IV) 200 LAT, 39.3.2417 LONG RIVER RODE RIVER MILE DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51345) (Natural-Class I) NOTE: Complete All items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL MODIFICATIONS: 1. SUBSTRATE (Estimate percent of every type of substrate present. Check Onl. 1 New predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate bytes found (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 32). Add total number of significant substrate bytes found (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 32). Add total number of significant substrate bytes found (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Add total number of significant substrate bytes found (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Add total number of significant substrate bytes found (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes A & B. HELL MAXIMUM (Max of 8). Fins mentic score is sum of boxes		0.01
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions STREAM CHANNEL	000	
STREAM CHANNEL		
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. BEROS (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. BEROS (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. BEROS (Max of 32). Add total number of significant substrate types for type and the substrate types for type and the substrate types for type and type an	NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
Max of 32), Add total number of significant substrate types found (Max of 8), Final metric score is sum of boxes A 8 B. Hell Metric		COVERY
Metric Points Silic Spi Sold Spi S		. HHEI
BLDR SLABS (16 pls)		Metri
BEDROCK 16 pt]	□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
COBBLE (65 256 mm) [12 pts] O% O% O% O% O% O% O% O		
SAND (<2 mm) [6 pts] 15% ARTIFICIAL [3 pts] 0%		Max = 4
Total of Percentages of 8.0.00% (A) Blor Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation cach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters (20 pts) > 22.5 son (30 pts) > 10 22.5 son (25 pts) > 10 22.5 son (26 pts) > 10 22.5 son (27 pts) > 10 22.5 son (28 pts) > 10	or vive (2 or min) to peop	13
Bidr Slabs, Boulder, Cobble, Bedrock 0.00% SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters (20 pts) > 30 centimeters (20 pts) > 10 22.5 cm (25 pts) NO WATER OR MOIST CHANNEL [0 pts] S cm - 10 cm (15 pts) S cm -	E E CAULD (2 mm) [o pto]	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 30 centimeters [20 pts]	Total of Following Go of 1000/g (A)	A + B
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check OALY one box): > 30 centimeters [20 pts]	SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
> 30 centimeters 20 pts > 5 cm -10 cm 15 pts > 5 cm 5 pts > 5 cm 5 pts > 10 22.5 cm 25 pts NO WATER OR MOIST CHANNEL [0 pts] S cm 5 pts NO WATER OR MOIST CHANNEL [0 pts] S com 5 pts NO WATER OR MOIST CHANNEL 10 pts S com 5 pts NO WATER OR MOIST CHANNEL 10 pts S com 5 pts		
NO WATER OR MOIST CHANNEL [0 pts] 5		Max = 3
BANK FULL WIDTH (Measured as the average of 3-4 measurements) 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) 4	> 22.5 30 cm [30 pts] < 5 cm [5 pts]	_
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9 '7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9 '7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' AVERAGE BANKFULL WIDTH (meters): 1.16 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY *XNOTE: River Left (L) and Right (R) as looking downstream *X RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Wide >10m Wide >10m Woderate 5 10m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) None 1.0 Other Stream Flowing SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Other Stream GRADIENT ESTIMATE	NO WATER OR MOIST CHANNEL [U pis]	5
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.0 m - 4.0 m (> 9' 7' - 4' 8') [20 pts] COMMENTS OHW = 3.8*/0.7' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m None Residential, Park, New Field Fenced Pasture Moist Channel, isolated pools, no flow (Intermittent) COMMENTS Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 0.5 STREAM GRADIENT ESTIMATE	COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
Salution		
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH FLOODPLAIN QUALITY ** RIPARIAN WIDTH FLOODPLAIN QUALITY ** RIPARIAN WIDTH FLOODPLAIN QUALITY ** Wide >10m		
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 1.5 STREAM GRADIENT ESTIMATE	> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Immature Forest, Shrub or Old Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 0.5 1.5 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Crop None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) Other Stream Gradient Estimate Check ONLY one box): STREAM GRADIENT ESTIMATE	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m None Fenced Pasture Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) Other Construction (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) Other Construction (Check ONLY one box): Other Construction (Check ONLY one box	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
Moderate 5 10m	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑	Width Max=30
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 O.5 1.5 2.5 3 STREAM GRADIENT ESTIMATE	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH EL R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 >3 STREAM GRADIENT ESTIMATE	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) A	Width Max=30
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 0.5 STREAM GRADIENT ESTIMATE	> 4.0 meters (> 13') [30 pts]	Width Max=30
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 0.5 STREAM GRADIENT ESTIMATE	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Moderate 5 10m Proper Pasture Pow Completed Urban or Industrial Field	Width Max=30
Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 0.5 STREAM GRADIENT ESTIMATE Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) (Check ONLY one box): 2.0 3.0 3.0 3.0 3.0 3.0 3.0	> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0	Width Max=30
Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 0.5 STREAM GRADIENT ESTIMATE	> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' AVERAGE BANKFULL WIDTH (meters): 1.16 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream PLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) L R (Most Predominant per Bank) L R (Per Bank) Mature Forest, Wetland Conservation Tillage Moderate 5 10m Mature Forest, Shrub or Old Urban or Industrial Narrow < 5m Residential, Park, New Field Open Pasture, Row C COMMENTS Mining or Construction None	Width Max=30
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 >3 STREAM GRADIENT ESTIMATE	> 4.0 meters (> 13') [30 pts]	Width Max=30
None 1.0 2.0 3.0 >3 STREAM GRADIENT ESTIMATE	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Moderate 5 10 m Narrow <5 m None None COMMENTS Fenced Pasture Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitter Dry channel, no water (Ephemeral))	Width Max=30
□ 0.5 □ 1.5 □ 2.5 □ >3 STREAM GRADIENT ESTIMATE □ □ □	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (Most Predominant per Bank) Wide >10 m Moderate 5 10 m Narrow <5 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS AVERAGE BANKFULL WIDTH (meters): 1.16 1.16 1.16 2 3' 3" 5 pts] 3 0 m - 4.5 m (> 3' 3" - 4' 8") [15 pts] 5 1.0 m (<=3' 3") [5 pts] 5 1.0 m (> 3' 3" - 4' 8") [15 pts] 5 1.0 m (> 3' 3" - 4' 8") [15 pts] 5 1.0 m (> 3' 3" - 4' 8") [15 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (>=3' 3") [5 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (> 10 m (>=3' 3") [5 pts] 5 1.0 m (>=3' 3") [5 pts] 6 1.0 m (>=3' 3") [5 pts] 7 1.0 m (>=3' 3") [5 pts]	Width Max=30
	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS Fenced Pasture Mining or Construction COMMENTS Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.8'/0.7' AVERAGE BANKFULL WIDTH (meters): 1.16 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
	> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 13') [20 pts] COMMENTS OHW = 3.8'/0.7' AVERAGE BANKFULL WIDTH (meters): I.16 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Moderate 5 10 m None None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 1.16 AVERAGE BANKFULL WIDTH (meters): 1.17 AVERAGE B	Width Max=30 15 Trop ntt)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Comple	S5-S270C
QHEI PERFORMED? Yes ✓ No QHEI Score (If Ye	es, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Bryant Creek	Distance from Evaluated Stream 0.98
CWH Name:EWH Name:	Distance from Evaluated Stream
	Distance from Evaluated Stream
WAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATE USGS Quadrangle Name: Modesto NRCS Soil	I Map Page: NRCS Soil Map Stream Order
Manua	Washington
Township / Orly	
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/24/12	2 Quantity: 0.15
Base flow conditions: (1714) Bate of last precipitation	Quantity.
Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 20%	J.,.
Surroy (% open).	. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S	
Is the sampling reach representative of the stream (Y/N) If not, please expla	ain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections of	optional. NOTE: all voucher samples must be labeled with the site
ID number. Include appropriate field data sheets from	n the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed? (Y	
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) Aquatic Macroinve	ertebrates Observed? (Y/N) N Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STRE	EAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evalua	ntion and a narrative description of the stream's location
See Stream Assessment Form	
Stee Stream Assessment Form S5-S270c for site topographic	man
	_
aerial photograph, and resourc	ce bilocograbils





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 12

Legal Drain (Y/N): N **UTMN:** 14281384 ft

USGS Quadrangle: Modesto Section: 3

Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 1.5 feet
OHWM Depth: 0.8 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq i

Watershed Area: 0.01 sq mi
Predominant Sub: Leaf pack/clay

Stream S5-S271a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	92	0.01	0.55
5	92	0.01	0.56
6	73	0.01	0.26
7	73	0.01	0.26
8	73	0.01	0.26
RPA 8	73	0.01	0.26

Description of Potential Impact:

Impacts to S5-S271a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S271a are on the second page of this form.



Photograph Taken Upstream



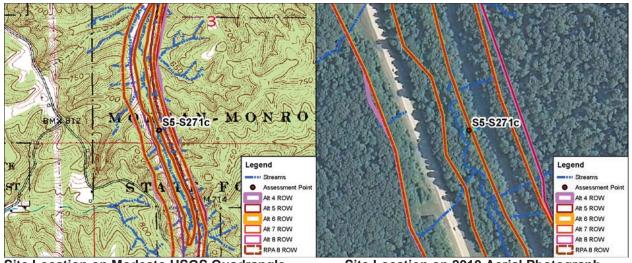
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER_S	55-S271a RIVER BASIN White River DRAINAGE AREA (mi²) 0.0)1
LENGTH OF STREAM REACH (ft) 92	LAT. 39.32517 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeke	er COMMENTS (Long: -86.51268) (Natural-Class I)	
	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruc	ctions
NOTE: Complete All Items On This Form	manual for one of the Cvaluation Manual for One 31 Tivit Streams for mount	CHOIIS
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECENT OR	VERY
	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
, ,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE Metri
TYPE PI BLDR SLABS [16 pts]		Point
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 40%	
BEDROCK [16 pt]	U% FINE DETRITUS 13 DIST	Substra Max = 4
COBBLE (65 256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 30%	IVIAX = 4
GRAVEL (2 64 mm) [9 pts]	20% MUCK [0 pts] 0%	7
SAND (<2 mm) [6 pts]	10% ARTIFICIAL [3 pts] 0%	
Total of Percentages of	0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	Oneck 10070	
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
	, ,	Pool Dep
		Max = 3
> 30 centimeters [20 pts] > 22.5 30 cm [30 pts]	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS ephemeral reach	MAXIMUM POOL DEPTH (centimeters): 0	
COMMENTS	WAXIMOW FOOL BETTIT (Centimeters).	
3. BANK FULL WIDTH (Measured as the		Bankfu
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	2 1.0 m (1-0 0) [0 pto]	max-ov
COMMENTS OHW - 1.5' / 0.8'	AVERAGE DANKELLI MUDTIL (****) 0.46	E
COMMENTS	AVERAGE BANKFULL WIDTH (meters): 0.46	5
RIPARIAN ZONE AND FLOODP	This information <u>must</u> also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
₩ide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5 10m	Immature Forest, Shrub or Old Urban or Industrial	
□□ Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop	ı
None None	Fenced Pasture Mining or Construction	
COMMENTS	Fericed Pasture Milling of Construction	
	aluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent)	
Stream Flowing	indist Chamber, Isolated pools, no now (intermittent)	
Stream Flowing Subsurface flow with isolated poo	ols (Interstitial)	
	ols (Interstitial) Dry channel, no water (Ephemeral)	
Subsurface flow with isolated poo COMMENTS_		
Subsurface flow with isolated poor COMMENTS	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0	
Subsurface flow with isolated poor COMMENTS	per 61 m (200 ft) of channel) (Check ONLY one box):	
Subsurface flow with isolated poor COMMENTS	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0	
Subsurface flow with isolated poor COMMENTS	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0	ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S271a
QHEI PERFORMED? Yes ✓ No QHEI Score (If Yes, Att	ach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map	Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township / City: Wash	nington
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 05/10/06	Quantity: 0.89
Photograph Information: 115 Upstream / 116 Downstream / 117 Right Bank / 118 Lef	t Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 20%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections options ID number. Include appropriate field data sheets from the P Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebra Comments Regarding Biology:	rimary Headwater Habitat Assessment Manual) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM Include important landmarks and other features of interest for site evaluation a	
See Stream Assessment Form S5-S271a for site topographic map aerial photograph, and resource p	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream US
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 14

Legal Drain (Y/N): N **UTMN:** 14281303 ft

USGS Quadrangle: Modesto

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 2.9 feet
OHWM Depth: 0.2 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq r

Watershed Area: 0.01 sq mi
Predominant Sub: Leaf Pack/silt

	Stream S5-S271	c – Modified Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	75	0.01	0.05
5	75	0.01	0.05
6	75	0.01	0.05
7	75	0.01	0.05
8	75	0.01	0.05
RPA 8	75	0.01	0.05

Description of Potential Impact:

Impacts to S5-S271c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of leaf pack and silt. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest in the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S271c are on the second page of this form.



Photograph Taken Upstream



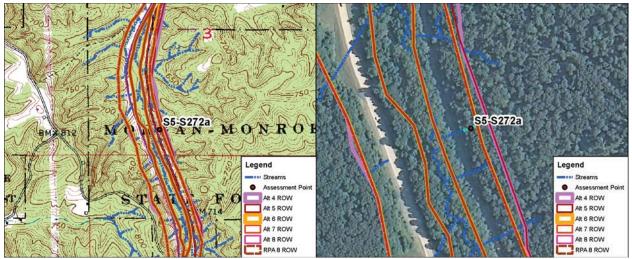
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S271C RIVER BASIN White River DRAINAGE AREA (mi²) 0.1	01
LENGTH OF STREAM REACH (ft) 100 LAT. 39.32495 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51336) (Natural-Modified Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOMMODIFICATIONS:	VERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] O% LEAF PACK/WOODY DEBRIS [3 pts] O% FINE DETRITUS [3 pts] O%	Substrate
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2 64 mm) [9 pts]	9
Onto (42 mm) [6 pto]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX = 30
 > 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.9'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.88	_
COMMENTS OHW = 2.970.2 AVERAGE BANKFULL WIDTH (meters): 0.88	5
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m ✓ ✓ Mature Forest, Wetland Conservation Tillage	
Immature Forest Shrub or Old	
Moderate 5 10m Immature Forest, Shrub or Old Urban or Industrial Field	
I II I Moderate 5 10m II)
Field Field Orban or Industrial)
Narrow <5m Residential, Park, New Field Orban or Industrial None Fenced Pasture Mining or Construction COMMENTS)
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	0
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	0
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	
Narrow <5m	
Narrow <5m Residential, Park, New Field Open Pasture, Row Crop None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	

ADDITIONAL STREA	M INFORMATION (This Information Must Also be Completed):	55-	· 52 / IC
QHEI PERF	FORMED? Yes No QHEI Score (If Yes, Att	ach Completed QHEI Form)	
DOWNSTR	EAM DESIGNATED USE(S)	_	
WWH Name: Bry	ant Creek	Distance from Evaluated Stream 0.9	2
CWH Name:		_ Distance from Evaluated Stream _	
EWH Name:		Distance from Evaluated Stream	
MAPPING:	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION	N
USGS Quadrangle Na	mme: Modesto NRCS Soil Map	Page: NRCS Soil Map Stream Order	
County: Monroe	Township / City:	ington	
MISCELLA	NEOUS		
Base Flow Conditions	?? (Y/N):_Y Date of last precipitation:_ 04/24/12	Quantity: 0.15	
Photograph Information	on: _		
Elevated Turbidity? (Y	(/N): N Canopy (% open): 20%		
Were samples collecte	ed for water chemistry? (Y/N): N (Note lab sample no. or id.	and attach results) Lab Number:	
Field Measures: Te	emp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach	representative of the stream (Y/N) If not, please explain:		
	· · · · · · · · · · · · · · · · · · ·		
Additional comments/	description of pollution impacts:		
PIOTIC EV	(ALLIATION		
	<u>/ALUATION</u>		
Performed? (Y/N): _	(If Yes, Record all observations. Voucher collections options ID number. Include appropriate field data sheets from the P	·	vith the site
Fish Observed? (Y/N)	N Voucher? (Y/N) N Salamanders Observed? (Y/N)	Voucher? (Y/N)	
Frogs or Tadpoles Ob	oserved? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebra	ates Observed? (Y/N) Voucher? (Y/N)	
Comments Regarding	Biology:		
			•
DRAW	ING AND NARRATIVE DESCRIPTION OF STREAM	REACH (This <u>must</u> be completed):	
Include importa	ant landmarks and other features of interest for site evaluation a	nd a narrative description of the stream's loc	ation
FLOW -	See Stream Assessment Form		
FLU W	S5-S271c for site topographic map	ρ,	
	aerial photograph, and resource p	photographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 1.3 feet

Channelized/Type: No/Natural OHWM Depth: 0.7 feet Ephemeral **USCOE** Jurisdiction: **Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** Watershed Area: 0.01 sq mi 12

Legal Drain (Y/N): N Predominant Sub: Leaf Pack, Clay

UTME: 1778134 ft **UTMN**: 14281565 ft

	Stream S5-	S272a – Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	88	0.01	0.60
5	88	0.01	0.61
6	82	0.01	0.34
7	82	0.01	0.34
8	82	0.01	0.34
RPA 8	82	0.01	0.34

Description of Potential Impact:

Impacts to S5-S272a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and leaf pack. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S272a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

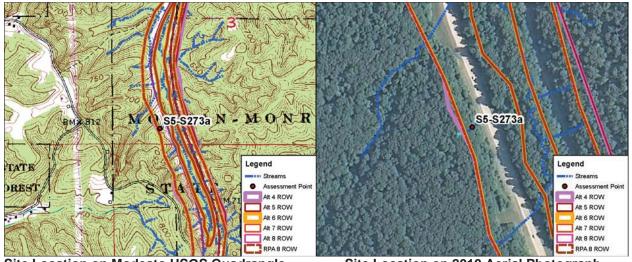


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S272a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 80 LAT. 39.32566 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51300) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Point
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 30%	Max = 4
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	7
Tatal of Research see of (2)	
Bldr Slabs, Boulder, Cobble, Bedrock	A+B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
 	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) ✓ Wide > 10m Moderate 5 10m Moderate 5 10m Note: River Left (L) and Right (R) as looking downstream ∴ Conservation Tillage Immature Forest, Wetland Utrban or Industrial	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' AVERAGE BANKFULL WIDTH (meters): O.40 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note Plooper Plank (Most Predominant per Bank) RIPARIAN WIDTH L R (Per Bank) Wide > 10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow < 5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' AVERAGE BANKFULL WIDTH (meters): O.40 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Vide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitten Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (≈ 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' AVERAGE BANKFULL WIDTH (meters): OHW - 1.3' / 0.7' AVERAGE BANKFULL WIDTH (meters): OL40 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.40 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (≈ 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.3' / 0.7' AVERAGE BANKFULL WIDTH (meters): OHW - 1.3' / 0.7' AVERAGE BANKFULL WIDTH (meters): OL40 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	12a
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) / WWH Name: Bryant Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Modesto NRCS Soil Map Page: 3 NRCS Soil Map Stream Order 1	
County: Monroe Township / City: Washington	
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 05/10/06 Quantity: 0.89	
Photograph Information: 119 Upstream / 120 Downstream / 121 Right Bank / 122 Left Bank	
Elevated Turbidity? (Y/N): _ N Canopy (% open):25%	
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	_
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)	e site
Comments Regarding Biology:	
	_
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):	
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location	l
See Stream Assessment Form	
S5-S272a for site topographic map,	

Reset Form

aerial photograph, and resource photographs



Site Location on 2010 Aerial Photograph

Modesto

Yes

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 50

Legal Drain (Y/N): N

UTME: 1777639 ft **UTMN:** 14281360 ft

oooo waaanangic.	Modesto
Section:	3
Township:	T10N
IDEM 303(d) List:	N/A
OHWM Width:	2.8 feet
OHWM Depth:	0.9 feet
USCOE Jurisdiction:	Yes

USGS Quadrangle:

IDEM Jurisdiction:

Watershed Area: 0.01 sq mi Predominant Sub: Gravel/sand

	Stream S5-S273a –Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	11	0.01	0.05	
5	0	0.00	0.01	
6	0	0.00	0.01	
7	0	0.00	0.01	
8	0	0.00	0.01	
RPA 8	0	0.00	0.01	

Description of Potential Impact:

Impacts to S5-S273a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S273a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



	50	
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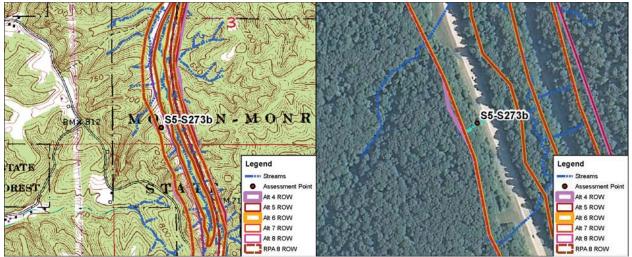
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S273a RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 120 LAT. 39.32511 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51475) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT PERCENT	Metri
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BUDR SLABS [16 pts] SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] 15%	Point
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 4
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] 45% MUCK [0 pts] ARTIFICIAL [3 pts] 0% 0%	20
Total of Percentages of Oney (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
 > 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 7	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW - 2.8' / 0.9' AVERAGE BANKFULL WIDTH (meters): 1.20	15
	10
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY LR (Per Bank) LR (Most Predominant per Bank) LR	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) ✓ Wide >10m ✓ Mature Forest, Wetland Conservation Tillage	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Der Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Der Bank) L R (Most Predominant per Bank) L R (Der Bank) L R (Most Predominant per Bank) L R (Der B	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5 10m Moderate 5 10m RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Der Bank) L R (Most Predominant per Bank) L R (Der Bank) L R	qı
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None RIPARIAN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank)	qc
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m None None COMMENTS RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Ba	app .
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing NOTE: River Left (L) and Right (R) as looking downstream ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ Residential, Quality Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermittent)	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) PLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A NOTE: River Left (L) and Right (R) as looking downstream A Residential, Quality Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction COMMENTS Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Woderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) CCHeck ONLY one box): None 1.0 SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 2.0 3.0	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage Urban or Industrial Open Pasture, Row Cro None Residential, Park, New Field Open Pasture, Row Cro None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3	-
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Woderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 1.0 RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) CCHeck ONLY one box): None 1.0 SINUOSITY (Number of bends per 61 m (200 ft) of channel) None 2.0 3.0	-) <u> </u>

ADDITIONAL STREAM INFORMATION (This Information Must Also be C	S5-S273a
QHEI PERFORMED? Yes V No QHEI Score	
<u> </u>	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek	Distance from Evaluated Stream
EWH Name:	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE	WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRC	CS Soil Map Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township /	City:Washington
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y _ Date of last precipitation: 05/	10/06 Quantity: 0.89
Photograph Information: 177 Upstream / 178 Downstream / 179 Right Ba	ank / 180 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 30%	-
Were samples collected for water chemistry? (Y/N): (Note lab sam	ple no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N) Y If not, pleas	se explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
· / — · · · · · · · · · · · · · · · · ·	ections optional. NOTE: all voucher samples must be labeled with the site states from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observers or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Ma	red? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	Ciolityertebrates Observed: (1714)
DRAWING AND NARRATIVE DESCRIPTION OF	STDEAM DEACH /This must be completed).
DRAWING AND NARRATIVE DESCRIPTION OF	
Include important landmarks and other features of interest for site	evaluation and a narrative description of the stream's location

FLOW

See Stream Assessment Form S5-S273a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 2.0 feet

Channelized/Type:Yes/Concrete GutterOHWM Depth:0.2 feetStream Type:EphemeralUSCOE Jurisdiction:NoEvaluation Type:HHEIIDEM Jurisdiction:No

Evaluation Score: 12 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Artificial

UTME: 1777770 ft **UTMN**: 14281429 ft

Stream S5-S273b – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	130	0.01	0.60
5	130	0.01	0.58
6	130	0.01	0.58
7	130	0.01	0.58
8	130	0.01	0.58
RPA 8	130	0.01	0.58

Description of Potential Impact:

Impacts to S5-S273b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The artificial substrate consists of a concrete gutter. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S273b are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



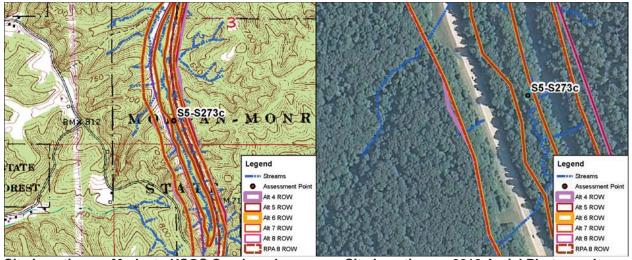
SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S273b RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 130 LAT. 39.32529 LONG. RIVER CODE RIVER MILE	
DATE 07/10/12 SCORER BLA Inc. COMMENTS (Long: -86.51428) (Concrete Gutter-Modified CI	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ GRAVEL (2 64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ 100% ☐ 1	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) ANOTE	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Moderate 5 10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten) Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten) Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (< 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2'/0.2' AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL	Width Max=30
A 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.61 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.61 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.61 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as lo	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (< 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Another Floodplain Quality RIPARIAN WIDTH L R (Per Bank) Wide >10 m Moderate 5 10 m Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 Check ONLY one box): None 1.0 3.0	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also be Complete	S5-S273b eted):
QHEI PERFORMED? Yes V No QHEI Score (If You	es, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATE	ERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil	I Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City:	Washington
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_N Date of last precipitation:_ 06/30/12	2 Quantity: 0.01
Photograph Information: 39 - Up, 40 - DS	
Elevated Turbidity? (Y/N): N Canopy (% open): 40%	
Were samples collected for water chemistry? (Y/N): (Note lab sample no	or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S	S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please expl	lain:
Additional comments/description of pollution impacts:	
ID number. Include appropriate field data sheets from Voucher? (Y/N) N Salamanders Observed? (Y/N)	optional. NOTE: all voucher samples must be labeled with the site in the Primary Headwater Habitat Assessment Manual) (//N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N
DRAWING AND NARRATIVE DESCRIPTION OF STRE Include important landmarks and other features of interest for site evaluation. See Stream Assessment Form	
FLOW TO SEE SOURCE TO THE	



S5-S273b for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Range: R1W
Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 19

Evaluation Score: 19 Legal Drain (Y/N): N

UTME: 1777917 ft **UTMN**: 14281497 ft

USGS	Quadrangle:	Modesto
------	-------------	---------

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 2.1 feet
OHWM Depth: 0.2 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq n

Watershed Area: 0.01 sq mi Predominant Sub: 0.01 sq mi Silt/gravel

Stream S5-S273c – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	52	0.01	0.05
5	52	0.01	0.05
6	52	0.01	0.05
7	52	0.01	0.05
8	52	0.01	0.05
RPA 8	52	0.01	0.05

Description of Potential Impact:

Impacts to S5-S273c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate primarily consists of a silt and gravel. There is a wide riparian corridor on both banks of the stream. The floodplain consists primarily of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S273c are on the second page of this form.



Photograph Taken Upstream

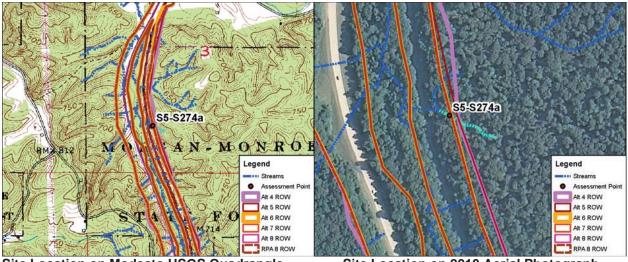




	THIEF GOOLG (Sum of metrics 1, 2, 3)	
SITE NAME/LOCATION I-69 Section 5	NF 0070	
OTTE NOWBER	65-S273c RIVER BASIN White River DRAINAGE AREA (mi²	
LENGTH OF STREAM REACH (ft) 111	LAT. 39.32548 LONG. RIVER CODE RIVER MILE	<u> </u>
DATE 07/10/12 SCORER BLA Inc.	COMMENTS (Long: -86.51376) (Modified Class I)	
NOTE: Complete All Items On This Form	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for In	structions
STREAM CHANNEL NONE / NA MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO R	RECOVERY
	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	S
,	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE Metri
TYPE P BLDR SLABS [16 pts]	PERCENT TYPE PERCENT 70%	Point
BOULDER (>256 mm) [16 pts]	0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts] 0%	Substra Max = 4
COBBLE (65 256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0%	IVIAX = 4
GRAVEL (2 64 mm) [9 pts]	30% MUCK [0 pts] 0%	14
SAND (<2 mm) [6 pts]	0% ARTIFICIAL [3 pts] 0%	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 2	
2. Maximum Pool Depth (Measure the m	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
	d culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 22.5 30 cm [30 pts]	> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box):	Bankfu
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
COMMENTS OHW 2.1'/0.2'	AVERAGE BANKFULL WIDTH (meters): 0.84] ₅
RIPARIAN ZONE AND FLOODE	This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	9
Moderate 5 10m	Field Urban or Industrial	
☐☐ Narrow <5m	Residential, Park, New Field Open Pasture, Row	Crop
None None	Fenced Pasture	ion
COMMENTS	- Chicago action	
ELOW PEGIME (At Timo of Eva	aluation) (Check ONLY one box):	
Stream Flowing	Moist Channel, isolated pools, no flow (Intermitt	ent)
Subsurface flow with isolated poor	ols (Interstitial) Dry channel, no water (Ephemeral)	
COMMENTS_		
SINUOSITY (Number of bends n	per 61 m (200 ft) of channel) (Check ONLY one box):	
None	1.0 2.0 3.0	
None	1.0 2.0 3.0	
None 0.5	1.0 2.0 3.0) ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	150
QHEI PERFORMED?	
DOWNSTREAM DESIGNATED USE(S) / WWH Name: Bryant Creek CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream	-
EWH Name: Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order	ᅱ
County: Monroe Township / City: Washington	
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_N Date of last precipitation:	1
Photograph Information: P37 - Down, P38 - Up	
Elevated Turbidity? (Y/N): _N Canopy (% open):90%	
Were samples collected for water chemistry? (Y/N): Note lab sample no. or id. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:	
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)	ne site
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N	
Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)	
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):	_
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location	n
See Stream Assessment Form	
S5-S273c for site topographic map,	
aerial photograph, and resource photographs	





Site Location on 2010 Aerial Photograph

Madaata

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: SW
Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 28

Legal Drain (Y/N): N

UTME: 1778041 ft **UTMN**: 14282012 ft

USUS Quadrangle.	Modesto
Section:	3
Township	TAON

LICCE Oughrandle

Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.1 feet
OHWM Depth: 0.8 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.02 sq

Watershed Area: 0.02 sq mi Predominant Sub: 0.02 sq mi Gravel/clay

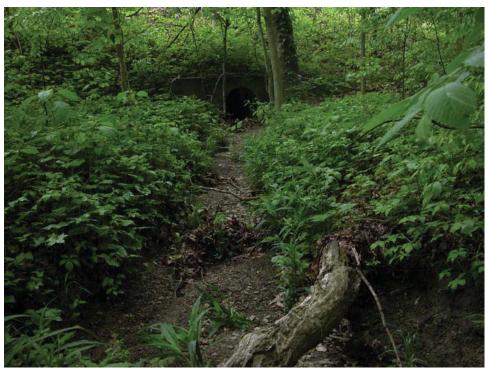
Stream S5-S274a -Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	114	0.01	0.57	
5	116	0.01	0.55	
6	74	0.01	0.34	
7	74	0.01	0.34	
8	74	0.01	0.34	
RPA 8	74	0.01	0.34	

Description of Potential Impact:

Impacts to S5-S274a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and clay. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S274a are on the second page of this form.



Photograph Taken Upstream



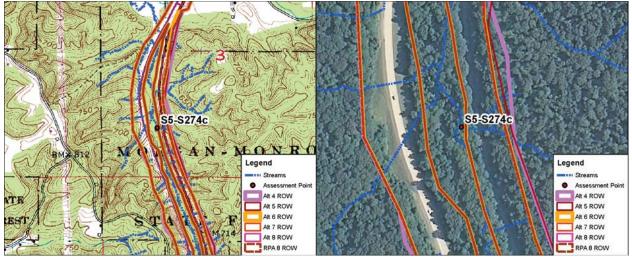
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S274a RIVER BASIN White River DRAINAGE AREA (mi²)	.02
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32689 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51332) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REC MODIFICATIONS:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] Comparison of the process of the p	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 35%	Max = 4
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] ARTIFICIAL [3 pts] 0%	13
Tatal of Power town of	
Bldr Slabs, Boulder, Cobble, Bedrock	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	ı
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	max = 0
→ > 22.5 30 cm [30 pts] < 5 cm [5 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW - 3.1' / 0.8' AVERAGE BANKFULL WIDTH (meters): 1.25	15
COMMENTS AVERAGE BANKFULL WIDTH (Meters): 1.23	15
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
LR (Per Bank) LR (Most Predominant per Bank) LR	
✓ ✓ Wide >10m ✓ ✓ Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Field Field	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	ηp
None Fenced Pasture Mining or Construction COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	ı
Subsurface flow with isolated pools (Interstitial) OMMENTS Dry channel, no water (Ephemeral)	
	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	-
☐ None ☐ 1.0 ☐ 2.0 ☐ 3.0	-
None 2.0 3.0 3.0 1.5 2.5 3	-
☐ None ☐ 1.0 ☐ 2.0 ☐ 3.0	- 10 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Co	ompleted):
QHEI PERFORMED? Yes ✓ No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE V	VATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRC	S Soil Map Page: 3 NRCS Soil Map Stream Order 1
County: Monroe Township / C	ity:Washington
Date of last precipitation.	0/06 Quantity: 0.89
Photograph Information: 123 Upstream / 124 Downstream / 130 Right Bar	sk / 129 Left Bank
Elevated Turbidity? (Y/N): _ Canopy (% open): _ 30%	
Were samples collected for water chemistry? (Y/N): (Note lab samp	le no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please	explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
· / =	tions optional. NOTE: all voucher samples must be labeled with the site s from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed Frogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Mac	d? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION OF S	TREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site e	valuation and a narrative description of the stream's location
See Stream Assessment Form S5-S274a for site topograph: aerial photograph, and reson	_
acriar photograph, and lesot	AT CE PITOLOGIAPITO





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource:StreamUSGS Quadrangle:ModestoStream Name:Unnamed Trib. Bryant CkSection:3

Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 3.6 feet Channelized/Type: No/Natural OHWM Depth: 0.6 feet

Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes **Evaluation Score:** 23 Watershed Area: 0.02 sq mi Gravel/sand Legal Drain (Y/N): Ν Predominant Sub:

UTME: 1777812 ft **UTMN**: 14282054 ft

Stream S5-S274c -Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	52	0.01	0.00	
5	52	0.01	0.00	
6	52	0.01	0.00	
7	52	0.01	0.00	
8	52	0.01	0.00	
RPA 8	52	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S274c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest in the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S274c are on the second page of this form.



Photograph Taken Upstream



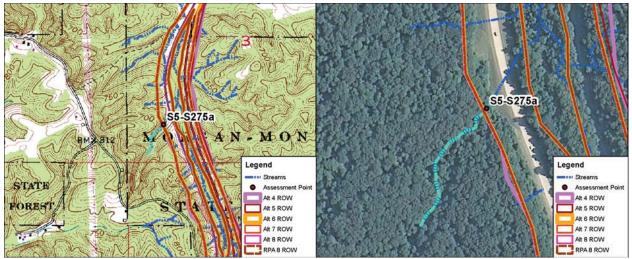
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S274c RIVER BASIN White River DRAINAGE AREA (mi²)	0.02
LENGTH OF STREAM REACH (ft) 80 LAT. 39.32701 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51413) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] LEAF PACK/WOODY DEBRIS [3 pts] 5% 0% FINE DETRITUS [3 pts] 0%	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 40
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] MUCK [0 pts] O% ARTIFICIAL [3 pts]	18
Total of Percentages of Ongo/ (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 100%	
	Pool Don
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.98	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH ENDODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10 mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 0.98 L R (Most Predominant per Bank) V Mature Forest, Wetland I Moderate 5 10m One Pacture Pow Completed Urban or Industrial Field	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) V Wide >10m Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 0.98 L R (Most Predominant per Bank) V Mature Forest, Wetland I Moderate 5 10m One Pacture Pow Completed Urban or Industrial Field	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V Wide >10 m Mature Forest, Wetland Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] 1.0 m (<=3' 3") [5 pts] 2.1 m (<=3' 3") [5 pts] 3.0 m - 4.0 m (> 9' 7" - 4' 8") [15 pts] 4 m (<=3' 3") [5 pts] 5 m (<=3' 3") [5 pts] 5 m (<=3' 3") [5 pts] 5 m (<=3' 3") [5 pts] 6 m (<=3' 3") [5 pts] 7 m (<=3' 3") [5 pts] 7 m (<=3' 3" - 4' 8") [15 pts] 7 m (<=3' 3") [5 pts] 8 m (<=3' 3") [5 pts] 9 m (<=3' 3") [5 pts] 9 m (<=3' 3") [5 pts] 9 m (<=3' 3") [5 pts] 10 m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Vide >10 m Mature Forest, Wetland Moderate 5 10 m Narrow <5 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Notes and Notes and Notes are selected. RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Moderate 5 10 m Narrow <5 m None None COMMENTS Fenced Pasture Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Now water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note Note	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.2'/0.6' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note Note	Width Max=30

ADDITIONAL STREAM	I INFORMATION (This Information Must Also be Co		52/4C
QHEI PERFO			
DOWNSTRE WWH Name: Brya CWH Name: EWH Name:	AM DESIGNATED USE(S) ant Creek	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream	
	ATTACH COPIES OF MAPS, INCLUDING THE <u>entire</u> w	/ATERSHED AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Nan	ne: Modesto NRCS	S Soil Map Page: NRCS Soil Map Stream Order	
County: Monroe	Township / Ci	ty: Washington	
MISCELLAN	EOUS		
Base Flow Conditions?	(Y/N): Y Date of last precipitation: 04/2	4/12 Quantity: 0.15	
Photograph Information	n:		
Elevated Turbidity? (Y/I	N): _ N Canopy (% open): _ 20%		
Were samples collected	d for water chemistry? (Y/N): N (Note lab sample	e no. or id. and attach results) Lab Number:	
		pH (S.U.) Conductivity (µmhos/cm)	
	epresentative of the stream (Y/N) If not, please escription of pollution impacts:		
BIOTIC EVA	ALUATION		
Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Obs	ID number. Include appropriate field data sheets N Voucher? (Y/N) N Salamanders Observed eerved? (Y/N) N Voucher? (Y/N) Aquatic Macro	from the Primary Headwater Habitat Assessment Manual) d? (Y/N) Voucher? (Y/N) voinvertebrates Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)	th the site
Comments Regarding E	3iology:		
		TREAM REACH (This must be completed): valuation and a narrative description of the stream's loca	ntion
FLOW →	See Stream Assessment Form S5-S274c for site topograph	nic map,	
	aerial photograph, and reso	ource photographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Secret

Evaluation Score: 40 Legal Drain (Y/N): N

UTME: 1777414 ft **UTMN**: 14281820 ft

U	SGS	Quadrangle:	Modesto
_			_

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 2.4 feet
OHWM Depth: 0.8 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.07 sq m

Watershed Area: 0.07 sq mi Predominant Sub: Gravel/sand

Stream S5-S275a –Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	52	0.01	0.23	
5	50	0.01	0.22	
6	50	0.01	0.22	
7	50	0.01	0.22	
8	50	0.01	0.22	
RPA 8	50	0.01	0.22	

Description of Potential Impact:

Impacts to S5-S275a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S275a are on the second page of this form.



Photograph Taken Upstream



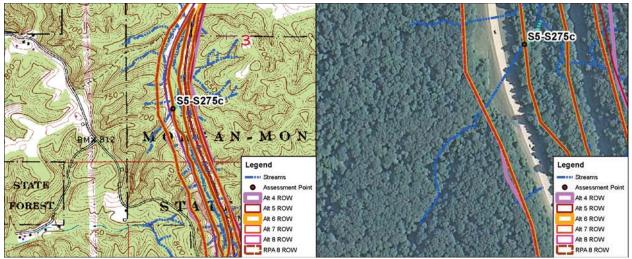
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S275a RIVER BASIN White River DRAINAGE AREA (mi²)	0.07
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32637 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51554) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVE	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 3%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 2% 2%	Substrate
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 40
GRAVEL (2 64 mm) [9 pts] 45% MUCK [0 pts] 0%	20
SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] 0%	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 7	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width Max=30
	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ARIPARIAN WIDTH FLOODPLAIN QUALITY FLOODPLAIN QUALITY	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (<=3' 3") [5 pts] < 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] < 1.0 m (<=3' 3") [5 pts] < 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) V (Most Predominant per Bank) V Wide >10 m Mature Forest, Wetland Moderate 5 10 m Narrow <5 m Narrow <5 m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitten)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN MIDTH FLOODPLAIN QUALITY Note: River Left (L) and Right (R) as looking downstream → RIPARIAN Wide > 10 m Mature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Narrow < 5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.73 This information pust also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.73 This information pust also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.73 This information pust also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.73 This information pust also be completed RIPARIAN WIDTH (Most Predominant per Left (L) and Right (R) as looking downstream: Conservation Tillage Immature Forest, Wetland	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Another Research Riparity And the forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m	Width Max=30 5

ADDITIONAL STRI	EAM INFORMATION (This Information M	lust Also be	Completed):		22-	52/56
QHEI PE	RFORMED? Yes V No QHEISc	ore	(If Yes, Attac	ch Completed QHEI For	m)	
WWH Name: CWH Name:	TREAM DESIGNATED USE(S) Bryant Creek		-	_ Distance from Evaluat	ed Stream _	
EWH Name:				Distance from Evaluate	_	
	G: ATTACH COPIES OF MAPS, INCLUDIN	G THE ENTIR	E WATERSHED	AREA. CLEARLY MAR	THE SITE LOCATIO	N
USGS Quadrangle	Name:_wodesto	NF	RCS Soil Map Pa		I Map Stream Order _	
County: Monroe		Township	/ City: Washin	gton		
MISCELL Base Flow Condition Photograph Information Elevated Turbidity?	ation:	20%	5/10/06	Quantity: 0.89		
	N		<u> </u>	nd attach results) Lab N		
Is the sampling rea	ch representative of the stream (Y/N)	If not, plea	ase explain:			
Additional commen	ts/description of pollution impacts:					
Performed? (Y/N): Fish Observed? (Y/Frogs or Tadpoles Comments Regarding	ID number. Include appropriate (N) N Voucher? (Y/N) N Salam Observed? (Y/N) N Voucher? (Y/N) N	e field data she anders Obse	eets from the Prin			ith the site
	WING AND NARRATIVE DESCR			-		ation
FLOW -	See Stream Assessments S5-S275a for site to	opograp	hic map,			

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: SW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 5.0 feet

Channelized/Type: No/Natural OHWM Depth: 0.7 feet **Stream Type:** Ephemeral **USCOE Jurisdiction:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 43 Watershed Area: 0.07 sq mi

Legal Drain (Y/N): N Predominant Sub: Gravel

UTME: 1777612 ft **UTMN**: 14282142 ft

	Stream S5-	S275c –Class II PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	179	0.02	0.24
5	179	0.02	0.24
6	179	0.02	0.24
7	179	0.02	0.24
8	179	0.02	0.24
RPA 8	179	0.02	0.24

Description of Potential Impact:

Impacts to S5-S275c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate of S5-S275c is gravel. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest in the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S275c are on the second page of this form.



Photograph Taken Upstream



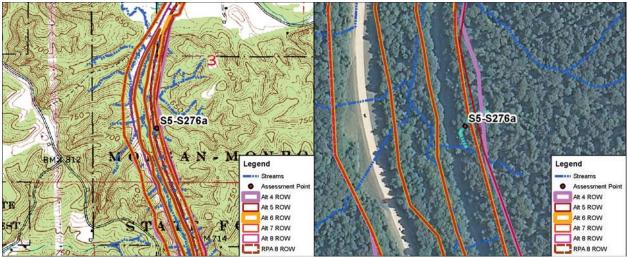
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S275c RIVER BASIN White River DRAINAGE AREA (mi²)	.07
LENGTH OF STREAM REACH (ft) 195 LAT. 39.32726 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51483) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECOVE	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BEDROCK [16 pt]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 4
✓ GRAVEL (2 64 mm) [9 pts] 85% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	18
Total of Percentages of (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	715
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 10 cm [5 pts]	l
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW = 5'/0.7' AVERAGE BANKFULL WIDTH (meters): 1.52	20
This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R	
Wide >10m Wide >10m White Forest, Wetland Conservation Tillage	
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Conservation Tillage Urban or Industrial	
Wide >10m Moderate 5 10m Mod	op
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Conservation Tillage Urban or Industrial	ор
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Field Narrow <5m None Fenced Pasture Comments	op -
Wide >10m Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Old Immature Forest or Old Immature Forest or Old Immature Forest or Old Immature Fore	L
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shr	L
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Open Pasture Immature Forest or Open Pasture Immature Forest or Open Pasture Immatu	L
Wide >10m	L
Wide >10m	L
Wide >10m)]

ADDITIONAL STRE	AM INFORMATION (This Information I	Must Als	so be Completed):			S5-S2750
QHEI PER	RFORMED? Yes V No QHEISo	ore	(If Yes, Atta	ach Completed QHEI F	⁻ orm)	
DOWNST	REAM DESIGNATED USE(S)					
WWH Name: Br			_	_ Distance from Evalu	uated Stream	0.72
CWH Name: _				_ Distance from Evalu	7	
EWH Name:				Distance from Evalu	iated Stream	
	: ATTACH COPIES OF MAPS, INCLUDIN	IG THE E	NTIRE WATERSHE	DAREA. CLEARLY MA	ARK THE SITE L	OCATION
USGS Quadrangle N	lame: Modesto		NRCS Soil Map F	Page: NRCS S	Soil Map Stream	Order
County: Monroe		L Towr	nship / City: Washi	ngton		
MISCELL	ANEOUS					
Base Flow Condition	s? (Y/N): _Y Date of last precipita	ation:_	04/24/12	Quantity: 0.	15	
Photograph Informat	iion:					
Elevated Turbidity? ((Y/N): _ N Canopy (% open):	35	%			
Were samples collec	cted for water chemistry? (Y/N): N	_ (Note la	ab sample no. or id.	and attach results) Lab	Number:	
	Temp (°C) Dissolved Oxygen (n	ng/l)	pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling read	h representative of the stream (Y/N)	If no	t, please explain:			
Additional comments	s/description of pollution impacts:					
radiional commona	Stadeon phon or pondhor impacto.					
DIOTIO E	WALLIA TON				-	
	N N					
Performed? (Y/N): _	(If Yes, Record all observations ID number. Include appropriat		-		•	
Fish Observed? (Y/N	N Voucher? (Y/N) N Salam	nanders	Observed? (Y/N)	Voucher? (Y/N)	í	
Frogs or Tadpoles C	Observed? (Y/N) N Voucher? (Y/N) N	Aqua	atic Macroinvertebra	tes Observed? (Y/N)	Voucher? (Y/N)
Comments Regardin	ng Biology:					
						
DRAW	VING AND NARRATIVE DESCR	IPTION	N OF STREAM F	REACH (This mus	t he comple	ted):
	tant landmarks and other features of in			,		•
				·		
•	See Stream Assessme	nt F	orm			
FLOW	S5-S275c for site t			,		
	aerial photograph,					

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream USGS Quadrar Stream Name: Unnamed Trib. Bryant Ck Section:

Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 21

Legal Drain (Y/N): N **UTMN:** 14282151 ft

USGS Quadrangle: Modesto Section: 3 Township: T10N IDEM 303(d) List: N/A OHWM Width: 1.0 feet OHWM Depth: 0.5 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area: 0.01 sq mi Predominant Sub: Gravel/leaf pack

	Stream S5	-S276a –Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	247	0.01	0.52
5	212	0.01	0.35
6	172	0.01	0.21
7	172	0.01	0.21
8	172	0.01	0.21
RPA 8	172	0.01	0.21

Description of Potential Impact:

Impacts to S5-S276a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and leaf pack. There is a wide riparian corridor associated with this stream along both banks until the channel turns to the south and runs parallel to SR 37, where the riparian buffer is narrow. The adjacent floodplain consists of mature forest and transportation. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S276a are on the second page of this form.



Photograph Taken Upstream



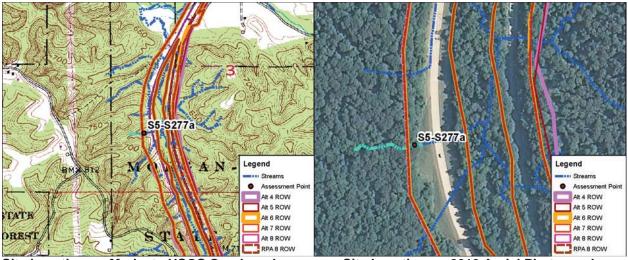
Photograph Taken Downstream



	THILI COOLE (Sum of metrics 1, 2, 3) :	
SITE NAME/LOCATION I-69 Section 5		
SITE NUMBER S	55-S276a RIVER BASIN White River DRAINAGE AREA (mi²) 0.0	01
LENGTH OF STREAM REACH (ft) 180	LAT. 39.32727 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meekel		
NOTE: Complete All Items On This Forn	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	ictions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL	OVERY
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
	ERCENT TYPE PERCENT	Metri Point
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts]	0% SILT [3 pt] 10% SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] 25%	1 01111
BEDROCK [16 pt]	0% FINE DETRITUS [3 pts] 0%	Substra
COBBLE (65 256 mm) [12 pts]	0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts]	55% MUCK [0 pts] 0%	40
SAND (<2 mm) [6 pts]	10% ARTIFICIAL [3 pts] 0%	16
Total of Percentages of	0 00% (A) Substrate Percentage (B)	
Bldr Slabs, Boulder, Cobble, Bedrock	0.00% (A) Substitute Percentage 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the m	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
	d culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	
> 22.5 30 cm [30 pts]	< 5 cm [5 pts] NO WATER OR MOIST CHANNEL [0 pts]	
> 10 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pis]	0
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the	e average of 3-4 measurements) (Check ONLY one box):	Bankfu
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW - 1.0' / 0.5'	AVERAGE BANKFULL WIDTH (meters): 0.30	5
	This information must also be completed	
RIPARIAN ZONE AND FLOODP		
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
✓ ✓ Wide >10m	Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old	
Moderate 5 10m	Field Urban or Industrial	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Crop	р
None	Fenced Pasture Mining or Construction	
COMMENTS	renced Pasture Minning of Construction	
· ·	aluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated poo	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
COMMENTS_		
ONII OOTTV (N	con Cd m (200 ft) of about all (200 ft) of about all (200 ft)	
SINUOSITY (Number of bends p	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0	
0.5	1.5 2.5 3.0	
OTDEAN 00 10 10 10 10 10 10 10 10 10 10 10 10		
STREAM GRADIENT ESTIMATE		
Flat (0.5 ft/100 ft)	Moderate (2 ft/100 ft) Moderate to Severe	0 ft)
Flat (0.5 ft/100 ft)	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100	0 ft)

ADDITIONAL STREAM	M INFORMATION (This Information Must Also be Completed):		55-5276a
QHEI PERF	ORMED? Yes No QHEI Score (If Yes, Atta	ach Completed QHEI Form	1)
DOWNSTRE	EAM DESIGNATED USE(S)		
WWH Name: Brya	ant Creek	_ Distance from Evaluate	ed Stream
CWH Name: _		_ Distance from Evaluated	d Stream _
EWH Name:		Distance from Evaluated	d Stream _
	ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED	DAREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle Na	me: Modesto NRCS Soil Map F	Page: 3 NRCS Soil	Map Stream Order
County: Monroe	Township / City: Washi	ngton	
MISCELLAN	IEOUS		
Base Flow Conditions?		Quantity: 0.89	
Photograph Information	n: _125 Upstream / 126 Downstream / 127 Right Bank / 128 Left	Bank	
Elevated Turbidity? (Y/	/N): _ N Canopy (% open): _ 20%		
Were samples collecte	ed for water chemistry? (Y/N): N (Note lab sample no. or id. a	and attach results) Lab Nu	mber:
Field Measures: Te	emp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmh	nos/cm)
Is the sampling reach r	representative of the stream (Y/N) If not, please explain:		
Additional comments/d	description of pollution impacts:		
BIOTIC EV	ALUATION		
N			
Performed? (Y/N): _	(If Yes, Record all observations. Voucher collections optional ID number. Include appropriate field data sheets from the Pri	•	
Fish Observed? (Y/N)	` /	Voucher? (Y/N)	\\\.\.\.\.\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Frogs or Tadpoles Obs		tes Observed? (Y/N)	Voucher? (Y/N)
Comments Regarding	Biology:		
			· · · · · · · · · · · · · · · · · · ·
DRAWI	NG AND NARRATIVE DESCRIPTION OF STREAM R	REACH (This <u>must</u> b	e completed):
Include importa	nt landmarks and other features of interest for site evaluation an	nd a narrative description	of the stream's location
•	Gas Gharam Assassas Sana		
FLOW -	See Stream Assessment Form		
	S5-S276a for site topographic map	,	
	aerial photograph, and resource p	hotographs	





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Stream Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 51

Legal Drain (Y/N): N **UTMN:** 14282262 ft

USGS Quadrangle: Modesto

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 4.5 feet
OHWM Depth: 1.1 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.04 sq m

Watershed Area: 0.04 sq mi Predominant Sub: Gravel/sand

	Stream S5-	S277a –Class II PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	75	0.01	0.28
5	73	0.01	0.27
6	73	0.01	0.27
7	73	0.01	0.27
8	73	0.01	0.27
RPA 8	73	0.01	0.27

Description of Potential Impact:

Impacts to S5-S277a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S277a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

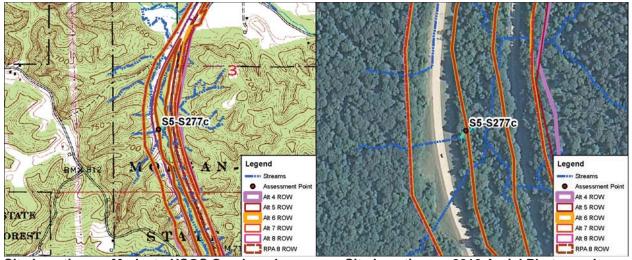


|--|

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S277a RIVER BASIN White River DRAINAGE AREA (mi²)	0.04
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32759 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER A Rogers (Long: -86.51583) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute of the Complete All Items On This Form - Refer to This	structions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	ECOVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	⊥ HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	Substrat
COBBLE (65 256 mm) [12 pts] 2% CLAY or HARDPAN [0 pt] 0%	Max = 4
✓ GRAVEL (2 64 mm) [9 pts] 55% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	21
Total of Percentages of Cook (A) Substrate Percentage (B)	
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	IVIAX = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 10	
COMMENTS MAXIMUM FOOL DEFTH (centiliteters).	
	<u> </u>
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/1.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/1.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) P1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.37 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/1.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) V Wide >10m Mature Forest, Wetland I Mature Forest, Wetland I Mature Forest, Shrub or Old I Mature Forest, Shrub or Old I Mature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/1.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Vide >10 m Mature Forest, Wetland Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittee	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.5'/1.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m (Most Predominant per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10 m Narrow <5 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS AVERAGE BANKFULL WIDTH (meters): 1.37 AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 1.37 AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 1.37 AVERAGE BANKFULL WIDTH (meters): AVE	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] COMMENTS OHW = 4.5'/1.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) Wide >10 m Moderate 5 10 m Moderate 5 10 m Residential, Park, New Field Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] COMMENTS OHW = 4.5'/1.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY R (Per Bank) Wide >10 m Moderate 5 10 m Moderate 5 10 m Residential, Park, New Field Narrow <5m None Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0	Width Max=30 15 Crop on nt)

ADDITIONAL STR	REAM INFORMATION (This Information Must Als	o be Completed):		55-52//6
QHEI PF	ERFORMED? Yes No QHEI Score	(If Yes, Attach	n Completed QHEI Form	1)
WWH Name: _	ETREAM DESIGNATED USE(S) Bryant Creek		Distance from Evaluate	_
EWH Name:			Distance from Evaluated	d Stream _
MAPPIN	IG: ATTACH COPIES OF MAPS, INCLUDING THE E	NTIRE WATERSHED A	AREA. CLEARLY MARK	THE SITE LOCATION
USGS Quadrangle	Name: Modesto	NRCS Soil Map Pag	ge: NRCS Soil	Map Stream Order
County: Monroe	Town	ship / City: Washing	yton	
MISCEL	LANEOUS			
Base Flow Condition	ons? (Y/N):_Y Date of last precipitation:	05/10/06	Quantity: 0.89	
Photograph Inform	nation:			
Elevated Turbidity	? (Y/N): _ N Canopy (% open):60	%		
Were samples coll	lected for water chemistry? (Y/N): N (Note la	ab sample no. or id. an	d attach results) Lab Nu	mber:
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity (µmh	nos/cm)
	ach representative of the stream (Y/N) Y If no I	t, please explain:		
Additional comme	ints/description of politition impacts			
BIOTIC	EVALUATION			
Performed? (Y/N): Fish Observed? (Y	N (If Yes, Record all observations. Vouch ID number. Include appropriate field da ///N) N Voucher? (Y/N) N Salamanders of Observed? (Y/N) N Voucher? (Y/N) N Aqua	·	ary Headwater Habitat As Voucher? (Y/N)	
	WING AND NARRATIVE DESCRIPTION ortant landmarks and other features of interest for		-	
FLOW -	See Stream Assessment F S5-S277a for site topog aerial photograph, and	raphic map,	otographs	

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Stream Name: Unna Quarter: SW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 33

Legal Drain (Y/N): N **UTMN:** 14282337 ft

USGS Quadrangle: Modesto

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 4.8 feet
OHWM Depth: 0.4 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.04 sq m

Watershed Area: 0.04 sq mi Predominant Sub: Gravel/sand

	Stream S5-	-S277c –Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	188	0.02	0.24
5	188	0.02	0.24
6	188	0.02	0.24
7	188	0.02	0.24
8	188	0.02	0.24
RPA 8	188	0.02	0.24

Description of Potential Impact:

Impacts to S5-S277c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest in the bifurcated area of existing SR 37. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S277c are on the second page of this form.



Photograph Taken Upstream



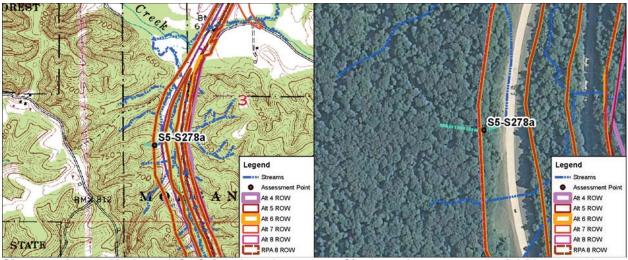
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S277C RIVER BASIN White River DRAINAGE AREA (mi²)	0.04
LENGTH OF STREAM REACH (ft) 175 LAT. 39.32779 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51493) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0% LEAF PACK/M/OODY PERPIS [3 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] D' LEAF PACK/WOODY DEBRIS [3 pts] 0% FINE DETRITUS [3 pts]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 40
✓ GRAVEL (2 64 mm) [9 pts] 45% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	18
Total of Percentages of 0.00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 30 cm [30 pts] < 5 cm [5 pts]	
□ > 10 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width Max=30
	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' AVERAGE BANKFULL WIDTH (meters): 1.50	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) ✓ Wide >10m Moderate 5 10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Moderate 5 10 m Moderate 5 10 m Residential, Park, New Field None COMMENTS Fenced Pasture Flood Regime (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
3.0 m eters (> 13') [30 pts] 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3.0 m - 4.0 m (> 9' 7" - 4' 8") [25 pts] 3.0 m (<=3' 3") [5 pts] 3.0 m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.8'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note and Ploopplain Quality RIPARIAN WIDTH FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note and Ploopplain Quality RIPARIAN WIDTH FLOOPPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note and Ploopplain Quality Note and Plooppla	Width Max=30 15 Crop nt)

ADDITIONAL STR	EAM INFORMATION (This Information Must Also be Co	mpleted):	55-52//
QHEI PE	RFORMED? Yes / No QHEI Score	(If Yes, Attach Completed QHEI Form)	
DOWNS	TREAM DESIGNATED USE(S)		
WWH Name:	• ,	_ Distance from Evaluated Stream	0.72
CWH Name: _		_ Distance from Evaluated Stream _	
EWH Name:		Distance from Evaluated Stream	
MAPPIN	G: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE W	ATERSHED AREA. CLEARLY MARK THE SITE L	OCATION
USGS Quadrangle	Name: Modesto NRCS	Soil Map Page: NRCS Soil Map Stream	n Order
County: Monroe	Township / Cit	ty: Washington	
MISCEL	LANEOUS		
Base Flow Condition	ons? (Y/N):_Y Date of last precipitation:_ 04/2 4	4/12 Quantity: 0.15	
Photograph Inform	ation:		
Elevated Turbidity	(Y/N): _N Canopy (% open):20%		
Were samples coll	ected for water chemistry? (Y/N): Note lab sample	e no. or id. and attach results) Lab Number:	
Field Measures:		pH (S.U.) Conductivity (μmhos/cm)	
Is the sampling rea	ich representative of the stream (Y/N)	explain:	
is the camping rea			
Additional commer	nts/description of pollution impacts:		
PIOTIC	EVALUATION		
BIOTIC	EVALUATION		
Performed? (Y/N):		ions optional. NOTE: all voucher samples must be la	
		from the Primary Headwater Habitat Assessment M	anual)
Fish Observed? (Y	/N) N Voucher? (Y/N) N Salamanders Observed	d? (Y/N) N Voucher? (Y/N)	N
Frogs or Tadpoles	Observed? (Y/N) N Voucher? (Y/N) N Aquatic Mach	oinvertebrates Observed? (Y/N) N Voucher?	(Y/N)
Comments Regard	ing Biology:		
DRA	WING AND NARRATIVE DESCRIPTION OF S	FREAM REACH (This must be comple	eted):
Include imp	ortant landmarks and other features of interest for site ev	aluation and a narrative description of the strea	am's location
_	See Stream Assessment Form		
FLOW -	S5-S277c for site topographic	c map.	
	aerial photograph, and resour	_	
	actial photograph, and lesou.	rec bilocoarabila	

Reset Form



Site Location on 2010 Aerial Photograph

T10N

Sand/gravel

Aquatic Resource: Stream USGS Quadrangle: Modesto Stream Name: Unnamed Trib. Bryant Ck Section: 3

Stream Name:Unnamed Trib. Bryant CkSection:Quarter:SWTownship:Range:R1WIDEM 303(d) List:

N/A Watershed: 05120201180 OHWM Width: 4.5 feet Channelized/Type: No/Natural OHWM Depth: 0.5 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes **Evaluation Score:** 40 Watershed Area: 0.01 sq mi

UTME: 1777269 ft **UTMN:** 14282626 ft

Ν

Legal Drain (Y/N):

	Stream S5-	S278a –Class II PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	103	0.01	0.41
5	101	0.01	0.40
6	101	0.01	0.40
7	101	0.01	0.40
8	101	0.01	0.40
RPA 8	101	0.01	0.40

Predominant Sub:

Description of Potential Impact:

Impacts to S5-S278a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and gravel. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S278a are on the second page of this form.



Photograph Taken Upstream



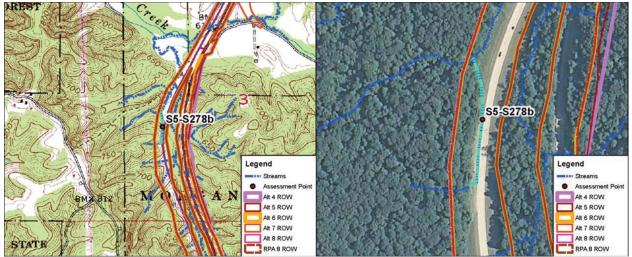
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S278a RIVER BASIN White River DRAINAGE AREA (mi²) 0.01
200 20050
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32859 LONG. RIVER CODE RIVER MILE
DATE 05/10/06 SCORER A Rogers COMMENTS (Long: -86.51594) (Natural-Class II)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS:
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.
TYPE PERCENT TYPE PERCENT Met
BLDR SLABS [16 pts] 0% SILT [3 pt] 10%
BOULDER (>256 mm) [16 pts]
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%
☐ ☐ GRAVEL (2 64 mm) [9 pts] ☐ MUCK [0 pts] ☐ MUCK [0 pts] ☐ ARTIFICIAL [3 pts] ☐ 20% ☐ 2
Tatal of Research as a of a Substitute Research as
Bldr Slabs, Boulder, Cobble, Bedrock
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]
> 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Bank
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] Wid Max=
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.5' / 0.5' This information must also be completed Wid Max= 1.37
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.5' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.37 Wid Max= > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.37 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.5' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.5' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) (Per Bank) V Mature Forest, Wetland P 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.37 15 Wid → 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) L R (Most Predominant per Bank) A Conservation Tillage
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.5' / 0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) V Wide > 10m Moderate 5 10m Mid y Wid NOTE: River Left (L) and Right (R) as looking downstream Conservation Tillage Immature Forest, Wetland Urban or Industrial
2
> 4.0 meters (> 13') [30 pts]
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]
3 - 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3.0 m - 4.0 m (> 9' 7" - 4' 8") [25 pts] 3.0 m - 4.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [15 pts] 3.0 m (> 10 pts] 3.0 m (
34.0 meters (> 13') [30 pts] 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3.0 m (<=3' 3") [5 pt
34.0 meters (> 13') [30 pts] 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] 3.0 m - 4.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [20 pts] 3.0 m (> 9' 7" - 4' 8") [15 pts] 3.0
3.0 meters (> 13') [30 pts]

ADDITIONAL ST	REAM INFORMATION (This Information	Must Also be Com	<u>npleted):</u>
QHEI P	ERFORMED? Yes No QHEIS	core(If Yes, Attach Completed QHEI Form)
DOWN	STREAM DESIGNATED USE(S) Bryant Creek		Distance from Evaluated Stream
CWH Name:	Dryant Orock		Distance from Evaluated Stream
EWH Name: _			
_			ATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangl	e Name: Modesto	NRCS	Soil Map Page: 3 NRCS Soil Map Stream Order
County: Monroe		Township / City	Washington
MISCEI	LLANEOUS		
Base Flow Condit			Quantity
Photograph Inform	nation: 165 Upstream / 166 Downstream	n / 167 Right Bank	/ 168 Left Bank
Elevated Turbidity	/? (Y/N): _ N	30%	
Were samples co	llected for water chemistry? (Y/N): _	_ (Note lab sample	no. or id. and attach results) Lab Number:
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l)pl	H (S.U.) Conductivity (µmhos/cm)
Is the sampling re	each representative of the stream (Y/N)	If not, please e	explain:
Additional comme	ents/description of pollution impacts:		
BIOTIC	EVALUATION		
Performed? (Y/N)	N (If Yes, Record all observation		ons optional. NOTE: all voucher samples must be labeled with the sit from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (, , , , , , , , , , , , , , , , , , , ,	manders Observed	` '
Comments Regar	s Observed? (Y/N) Voucher? (Y/N)	Aquatic Macro	invertebrates Observed? (Y/N) Voucher? (Y/N)
D.D.	AWING AND NADDATIVE DESCR	DIDTION OF ST	DEAM DEACH /This must be so maleted):
			REAM REACH (This <u>must</u> be completed):
			•
FLOW -	See Stream Assessmen	nt Form	
FLOW -	S5-S278a for site to		_
	aerial photograph, a	and resour	ce photographs

Reset Form



Site Location on 2010 Aerial Photograph

Modesto

Aquatic Resource: Stream USGS Quadrangle:

Stream Name:Unnamed Trib. Bryant CkSection:3Quarter:SWTownship:T10NRange:R1WIDEM 303(d) List:N/A

Watershed: 05120201180 OHWM Width: 1.7 feet Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.1 feet **USCOE Jurisdiction: Stream Type:** Ephemeral Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 12 Watershed Area: 0.01 sq mi
Legal Drain (Y/N): N Predominant Sub: Artificial

UTME: 1777439 ft **UTMN**: 14282997 ft

	Stream S5-S278	b – Modified Class I PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	706	0.03	0.96
5	706	0.03	0.96
6	706	0.03	0.96
7	706	0.03	0.96
8	706	0.03	0.96

Description of Potential Impact:

Impacts to S5-S278b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located adjacent to existing SR 37. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the right bank and an old field on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S278b are on the second page of this form.



Photograph Taken Upstream



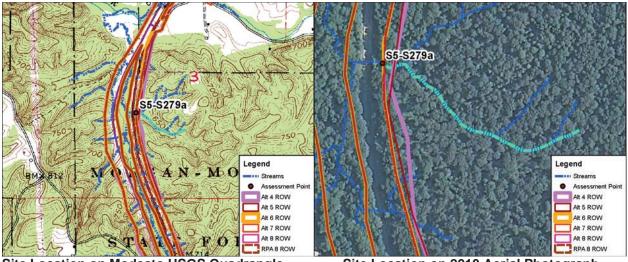
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S278b RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32961 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51543) (Concrete Gutter-Modified Cla	iss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI Metric
□ □ BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 40
GRAVEL (2 64 mm) [9 pts]	7
SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 100%	
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B) Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	
	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \(\leq 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.52	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ★NOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R (Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (< 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field Fenced Pasture Mining or Construction COMMENTS	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m Residential, Park, New Field Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermittent) Moist Channel, isolated pools, no flow (Intermittent)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] 5 1.0 m (<=3' 3") [5 pts] 6 1.0 m (<=3' 3") [5 pts] 6 1.0 m (<=3' 3") [5 pts] 6 1.0 m (<=3' 3") [5 pts] 7 2 m (<=3' 3") [5 pts] 8 1.0 m (<=3' 3") [5 pts] 9 1.0 m (<=3' 3") [5 pts] 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream to Note that the Note of Sense of	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): 0.52 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Cn V None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.7'/0.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream to Note that the Note of Sense of	Width Max=30

ADDITIONAL STR	EAM INFORMATION (This Information	Must Also be	e Completed):		,	55-S278£
	ERFORMED? Yes No QHEIS			ach Completed QHEI	Form)	
DOWNS WWH Name: CWH Name: EWH Name:	TREAM DESIGNATED USE(S)			Distance from Eva	aluated Stream	
	IG: ATTACH COPIES OF MAPS, INCLUDI	NG THE ENTI	RE WATERSHEI	_	_	CATION
USGS Quadrangle	Name: Modesto	N	RCS Soil Map F	Page: NRCS	Soil Map Stream C	Order
County: Monroe		Township	o / City: Washi	ngton		
MISCEL	LANEOUS					
Base Flow Condition	ons? (Y/N):Y Date of last precipit	tation: 0	4/24/12	Quantity: 0	.15	
Photograph Inform	ation:					
Elevated Turbidity	? (Y/N): _ N Canopy (% open)	100%				
Were samples coll	ected for water chemistry? (Y/N):N	_ (Note lab sa	ample no. or id.	and attach results) La	ab Number:	
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.)	Conductivity	(µmhos/cm)	
Is the sampling rea	ach representative of the stream (Y/N)	If not, ple	ease explain:			
Additional commer	nts/description of pollution impacts:					
BIOTIC Performed? (Y/N): Fish Observed? (Y	ID number. Include appropria	ite field data sh		imary Headwater Habit	•	
Frogs or Tadpoles	Observed? (Y/N) N Voucher? (Y/N)	Aquatic	Macroinvertebra	tes Observed? (Y/N)	N Voucher? (Y/	N)
Comments Regard	ling Biology:					
	WING AND NARRATIVE DESCR					-
mciade imp	ortant landmarks and other features of i	interest for si	te evaluation at	iu a namauve uescrij	Julion of the Stream	s location
	See Stream Assessme	nt Form	1			
FLOW -	S5-S278b for site t		_			
	aerial photograph,	and res	ource ph	notographs		

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SW Range: R1W

Legal Drain (Y/N):

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 72

UTME: 1777920 ft **UTMN**: 14282810 ft

Ν

USGS Quadrangle: Modesto

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 4.2 feet
OHWM Depth: 1.2 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.10 sq m

Watershed Area: 0.10 sq mi
Predominant Sub: Gravel/cobble

	Stream S5-	S279a – Class III PHWH	
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	81	0.01	0.36
5	83	0.01	0.37
6	23	0.01	0.09
7	28	0.01	0.12
8	30	0.01	0.12
RPA 8	33	0.01	0.13

Description of Potential Impact:

Impacts to S5-S279a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel, cobble, and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S279a are on the second page of this form.



Photograph Taken Upstream



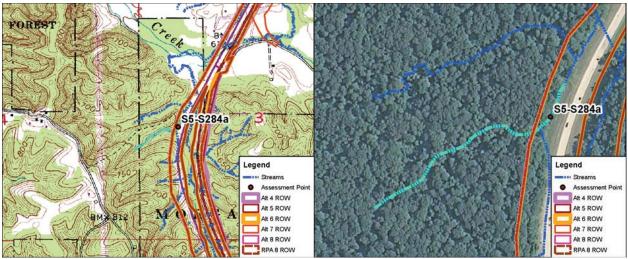
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S279a RIVER BASIN White River DRAINAGE AREA (mi²)	0.10
LENGTH OF STREAM REACH (ft) 200 LAT. 39.32909 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER J Meeker COMMENTS (Long: -86.51373) (Natural-Class III)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	ı HHEI
TYPE PERCENT TYPE PERCENT PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] LEAF PACK/WOODY DEBRIS [3 pts] 10% 5% FINE DETRITUS [3 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 25% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts] 40% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 15% ARTIFICIAL [3 pts] 0%	27
Onto (2 mm) [o pto]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	25
	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 12	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Y Wide > 10m Mature Forest, Wetland Conservation Tillage Immature Forest Shrub or Old Immature Forest Sh	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) ✓ Wide >10m Moderate 5 10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) V Wide >10 m Mature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Proper Pacture Row Conservation Flows Open Pacture Row Conservation Property Row Conservation Field	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10m Mature Forest, Wetland Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Noist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH L R (Per Bank) Vide >10 m Moderate 5 10 m Moderate 5 10 m Narrow <5 m Residential, Park, New Field None COMMENTS Fenced Pasture Mining or Construction Fenced Pasture Moist Channel, isolated pools, no flow (Intermitted Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Vide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 1.0 COMMENTS 1.80 AVERAGE BANKFULL WIDTH (meters): 1.80 AVERAG	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 4.2' / 1.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ★ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Vide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 None 1.0 COMMENTS 1.80 AVERAGE BANKFULL WIDTH (meters): 1.80 AVERAG	Width Max=30 20 Crop nt)

ADDITIONAL STREAM	AM INFORMATION (This Information Must	Also be Completed):		55-52/9a
QHEI PER	FORMED? Yes No QHEI Score	(If Yes, Atta	ch Completed QHEI Form)	
DOWNSTI WWH Name: Br CWH Name: EWH Name:	yant Creek		_ Distance from Evaluated Stre _ Distance from Evaluated Stre _ Distance from Evaluated Stre	am _
MAPPING	: ATTACH COPIES OF MAPS, INCLUDING TI	HE <u>ENTIRE</u> WATERSHED	AREA. CLEARLY MARK THE S	SITE LOCATION
USGS Quadrangle N	ame: Modesto	NRCS Soil Map P	age: 3 NRCS Soil Map S	Stream Order2
County: Monroe		Township / City: Washii	ngton	
MISCELLA Base Flow Condition		05/10/06	Quantity: 0.89	
Photograph Informati	on: 131 Upstream / 132 Downstream / 13	3 Right Bank / 134 Left	Bank	
Field Measures:	ted for water chemistry? (Y/N):N (No	pH (S.U.)	and attach results) Lab Number: Conductivity (μmhos/cn	n)
	bserved? (Y/N) Voucher? (Y/N)	·	mary Headwater Habitat Assessm Voucher? (Y/N)	
	See Stream Assessment S5-S279a for site to	est for site evaluation an	d a narrative description of the	-
	aerial photograph, a	nd resource	photographs	

Reset Form



Site Location on 2010 Aerial Photograph

Modesto

Aquatic Resource: Stream USGS Quadrangle:

Stream Name:Unnamed Trib. Bryant CkSection:3Quarter:SWTownship:T10NRange:R1WIDEM 303(d) List:N/A

Watershed: 05120201180 OHWM Width: 1.5 feet Channelized/Type: No/Natural OHWM Depth: 0.8 feet Ephemeral **USCOE Jurisdiction: Stream Type:** Yes **Evaluation Type: IDEM Jurisdiction:** HHEI Yes 0.04 sq mi **Evaluation Score:** Watershed Area: 21

Legal Drain (Y/N): N Predominant Sub: Silt

UTME: 1777445 ft **UTMN:** 14283377 ft

Stream S5-S284a – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	321	0.01	0.58		
5	319	0.01	0.56		
6	319	0.01	0.56		
7	319	0.01	0.56		
8	319	0.01	0.56		
RPA 8	319	0.01	0.56		

Description of Potential Impact:

Impacts to S5-S284a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of silt. There is a wide riparian corridor along the left bank and no riparian buffer along the right bank where these Alternatives cross this stream. The adjacent left bank floodplain consists of mature forest while the right floodplain is transportation. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S284a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

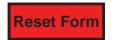


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S284a RIVER BASIN White River DRAINAGE AREA (mi²)	.04
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33065 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.51540) (Modified Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 90% POUL DEB (>366 mm) [16 pts]	Point
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 4
GRAVEL (2 64 mm) [9 pts]	11
Ortho (*2 mm) [o pto]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock O.00% (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 2	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check <i>ONLY</i> one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts]	_
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 1	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
	Max=30
COMMENTS OHW = 1.5'/0.8' AVERAGE BANKFULL WIDTH (meters): 0.50	Max=30
COMMENTS OHW = 1.5'/0.8' AVERAGE BANKFULL WIDTH (meters): 0.50 This information must also be completed	
COMMENTS OHW = 1.5'/0.8' AVERAGE BANKFULL WIDTH (meters): 0.50	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 0.50 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 0.50 L R (Nost Predominant per Bank) Mature Forest, Wetland Urban or Industrial Field	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): 0.50 L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Cro	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 0.50 L R (Nost Predominant per Bank) Mature Forest, Wetland Urban or Industrial Field	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Crown Comments Fenced Pasture Mining or Construction	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field Narrow <5m None Residential, Park, New Field Flood Plain Quality Residential, Park, New Field Residential, Park, New Field Flood Plain Quality Urban or Industrial Open Pasture, Row Crown Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent)	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY *NOTE: River Left (L) and Right (R) as looking downstream *RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Moderate 5 10m Residential, Park, New Field Open Pasture, Row Cro None Residential, Park, New Field Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	op
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Mature Forest, Shrub or Old Immature Forest, Shrub or Old Narrow <5m Residential, Park, New Field Open Pasture, Row Cro None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY *NOTE: River Left (L) and Right (R) as looking downstream *RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Moderate 5 10m Residential, Park, New Field Open Pasture, Row Cro None Residential, Park, New Field Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0	5 op

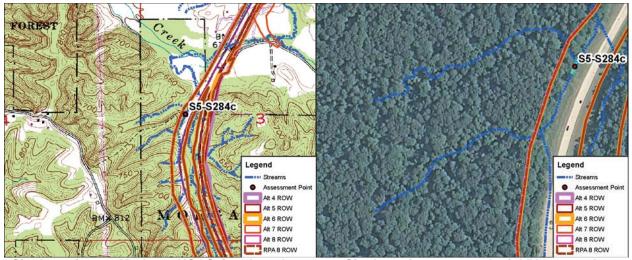
ADDITIONAL STRE	AM INFORMAT	ON (This Information N	/lust Also be	Completed):	:		S5-S284a
QHEI PEF	RFORMED?	Yes ✓ No QHEI Sc	ore	(If Yes, A	- ttach Complete	d QHEI Form)	
DOWNST	 REAM DESIGN	ATED LISE(S)					
WWH Name: B		AILD OOL(O)			Distance f	rom Evaluated St	ream
CWH Name:						om Evaluated Str	
EWH Name:					Distance fr	om Evaluated Str	eam _
MAPPING	S: АТТАСН СОРІ	ES OF MAPS, INCLUDIN	G THE ENTIR	<u>E</u> WATERSH	ED AREA. CLE	ARLY MARK THE	SITE LOCATION
USGS Quadrangle N	Name: Modesto		NF	RCS Soil Map	Page:	NRCS Soil Map	Stream Order
County: Monroe			Township	City: Was	hington		
MISCELL	ANEOUS	1			_		
Base Flow Condition	ns? (Y/N): Y	_ Date of last precipita	tion:10	/13/11	Quantity	/: 0.25	
Photograph Informa	tion:						
Elevated Turbidity?	(Y/N): N	Canopy (% open):	10%				
Were samples colle	cted for water ch	emistry? (Y/N): N	(Note lab sar	nple no. or id	d. and attach re	sults) Lab Numbe	r:
Field Measures:	Temp (°C)	Dissolved Oxygen (m	ng/l)	pH (S.U.)	Con	ductivity (µmhos/c	em)
Is the sampling read	ch representative	of the stream (Y/N)	If not, plea	ase explain:_			
Additional comment	s/description of p	pollution impacts:					
Performed? (Y/N): _ Fish Observed? (Y/N Frogs or Tadpoles C Comments Regarding	N Vouc Observed? (Y/N)	mber. Include appropriate her? (Y/N) N Salam	e field data she	ets from the Frved? (Y/N)	Primary Headwa	ter Habitat Assess	ust be labeled with the sitement Manual) ucher? (Y/N)
				*			· · · · · · · · · · · · · · · · · · ·
DRAV	VING AND N	ARRATIVE DESCR	IPTION OF	STREAM	REACH (Th	nis <u>must</u> be co	ompleted):
Include impo	rtant landmarks	and other features of in	iterest for site	evaluation	and a narrative	description of th	ne stream's location
FLOW -	See Str	eam Assessmer	nt Form				
FLOW -	S5-S284	a for site to	opograp	hic mar	Ο,		

PHWH Form Page - 2

Save as pdf



aerial photograph, and resource photographs



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: SW
Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 30

Legal Drain (Y/N): N

UTME: 1777568 ft **UTMN:** 14283657 ft

USGS Quadrangle:	Modesto
------------------	---------

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.8 feet
OHWM Depth: 0.6 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.04 sq n

Watershed Area: 0.04 sq mi
Predominant Sub: 0.04 sq mi
Silt/fine detritus

Stream S5-S284c – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	80	0.01	0.11	
5	80	0.01	0.10	
6	80	0.01	0.10	
7	80	0.01	0.10	
8	80	0.01	0.10	
RPA 8	80	0.01	0.10	

Description of Potential Impact:

Impacts to S5-S284c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of silt and fine detritus. There is a wide riparian corridor along the left bank and no riparian buffer along the right bank where these Alternatives cross this stream. The adjacent left bank floodplain consists of mature forest while the right floodplain is transportation. Photographs taken upstream and downstream in the area where the Alternatives cross S5-S284c are on the second page of this form.



Photograph Taken Upstream



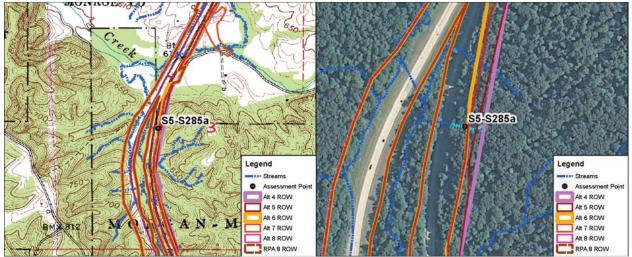
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S284c RIVER BASIN White River DRAINAGE AREA (mi²) 0	.04
LENGTH OF STREAM REACH (ft) 80 LAT. 39.33142 LONG. RIVER CODE RIVER MILE	
DATE 05/09/06 SCORER A Rogers COMMENTS (Long: -86.51496) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING:	OVERY
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
TYPE PERCENT TYPE PERCENT □ □ □ BLDR SLABS [16 pts] 0% □ □ SILT [3 pt] 70%	Metric Points
BOULDER (>256 mm) [16 pts] O LEAF PACK/WOODY DEBRIS [3 pts] 5%	
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts]	Substrat Max = 4
☐ COBBLE (65 256 mm) [12 pts] 0% ☐ CLAY or HARDPAN [0 pt] 0% ☐ GRAVEL (2 64 mm) [9 pts] 0% ☐ MUCK [0 pts] 0%	
SAND (<2 mm) [6 pts] 5% ARTIFICIAL [3 pts] 0%	10
Total of Percentages of Occor (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	AID
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
> 22.5 30 cm [30 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 5	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW - 3.8' / 0.6' AVERAGE BANKFULL WIDTH (meters): 1.20	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Open Pasture Row Crr	pp
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Cro	pp
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Open Pasture Row Crr	op -
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Narrow <5m None Fenced Pasture Conservation Tillage Urban or Industrial Open Pasture, Row Cro Mining or Construction COMMENTS	op -
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub	-
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	-
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest Shrub or Old Immature Forest Shrub or Old Immature Forest Shru	-
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or	-
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Fore	-
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or	-

ADDITIONAL STREAM INFORMAT	TION (This Information Must Also be Complet	ed):
QHEI PERFORMED?	Yes No QHEI Score (If Yes	s, Attach Completed QHEI Form)
DOWNSTREAM DESIGN	NATED USE(S)	
WWH Name: Bryant Creek	, , , , , , , , , , , , , , , , , , ,	_ Distance from Evaluated Stream
		_ Distance from Evaluated Stream _
EWH Name:		Distance from Evaluated Stream
MAPPING: ATTACH COF	PIES OF MAPS, INCLUDING THE ENTIRE WATER	RSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modest	NRCS Soil I	Map Page: 3 NRCS Soil Map Stream Order 2
County: Monroe	Township / City:	Vashington
MISCELLANEOUS	7	
Base Flow Conditions? (Y/N):_Y	Date of last precipitation: 05/09/06	Quantity: 0.01
Photograph Information: _82 Upstr	eam / 83 Downstream / 84 Right bank / 85 Left	bank
Elevated Turbidity? (Y/N): _ N	Canopy (% open):	
Were samples collected for water c	hemistry? (Y/N): (Note lab sample no.	or id. and attach results) Lab Number:
		U.) Conductivity (µmhos/cm)
Is the sampling reach representative	e of the stream (Y/N) If not, please explain	in:
Additional comments/description of	pollution impacts:	
` / = `		ptional. NOTE: all voucher samples must be labeled with the site the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Vou Frogs or Tadpoles Observed? (Y/N Comments Regarding Biology:	scher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinver	N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
DRAWING AND N	IARRATIVE DESCRIPTION OF STRE	AM REACH (This <u>must</u> be completed):
		ion and a narrative description of the stream's location
•		·
4 0 0	7	
FLOW	ream Assessment Form	
S5-S28	4c for site topographic	map,
aerial	photograph, and resourc	e photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Unnamed Trib. Bryant Ck

Stream Name: Quarter: SW Range: R1W

Legal Drain (Y/N):

Watershed: 05120201180 Channelized/Type: No/Natural Ephemeral **Stream Type: Evaluation Type:** HHEI **Evaluation Score:** 12

UTME: 1778021 ft **UTMN:** 14283547 ft

Ν

USGS Quadrangle: Modesto

Section: 3 Township: T10N IDEM 303(d) List: N/A OHWM Width: 1.5 feet OHWM Depth: 0.8 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.01 sq mi **Predominant Sub:** Leaf pack/clay

Stream S5-S285a – Modified Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	178	0.01	0.79	
5	135	0.01	0.61	
6	88	0.01	0.38	
7	90	0.01	0.41	
8	90	0.01	0.41	
RPA 8	90	0.01	0.41	

Description of Potential Impact:

Impacts to S5-S285a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of leaf pack, clay, and gravel. There is a wide riparian corridor along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S285a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



12

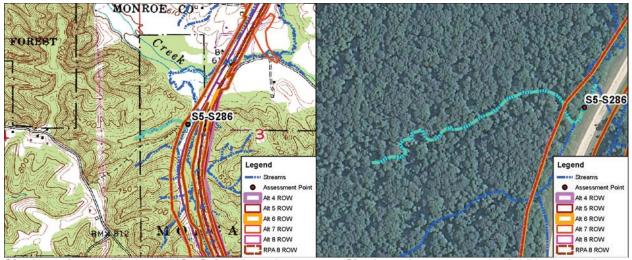
SITE NAME/LOCATION I-69 Section 5 RIVER BASIN White River S5-S285a DRAINAGE AREA (mi²) 0.01 SITE NUMBER 160 LAT. **39.33111** LONG. LENGTH OF STREAM REACH (ft) RIVER CODE RIVER MILE DATE 05/10/06 COMMENTS (Long: -86.51336) (Natural-Modified Class I) J Meeker SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☑ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 0% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 35% 0% Substrate 0% BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] Max = 400% 30% COBBLE (65 256 mm) [12 pts] CLAY or HARDPAN [0 pt] 25% 0% GRAVEL (2 64 mm) [9 pts] MUCK [0 pts] 10% 0% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: 4 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 30 cm [30 pts] < 5 cm [5 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 0 COMMENTS **MAXIMUM POOL DEPTH (centimeters):** BANK FULL WIDTH (Measured as the average of 3-4 measurements) Bankfull (Check ONLY one box): Width > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Max=30> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW - 1.5' /0.8' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ **FLOODPLAIN QUALITY** RIPARIAN WIDTH (Per Bank) R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5 10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE ✓ Moderate to Severe Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be	• Completed):
QHEI PERFORMED? Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Bryant Creek	_ Distance from Evaluated Stream
CWH Name:	_ Distance from Evaluated Stream _
EWH Name:	
	RE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	RCS Soil Map Page: 3 NRCS Soil Map Stream Order
County: Monroe Township	/ City: Washington
MISCELLANEOUS	
Base Flow Containone: (1714) Bate of last prodipitation	5/10/06 Quantity: 0.89
Photograph Information: 135 Upstream / 136 Downstream / 137 Right	Bank / 138 Left Bank
Elevated Turbidity? (Y/N): N Canopy (% open): 25%	
Were samples collected for water chemistry? (Y/N): (Note lab samples collected for water chemistry?	ample no. or id. and attach results) Lab Number:
	pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N)	ease explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
· /	ollections optional. NOTE: all voucher samples must be labeled with the site leets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observeds or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic I	voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
Comments Regarding Biology:	
DRAWING AND NARRATIVE DESCRIPTION O	F STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for si	te evaluation and a narrative description of the stream's location

FLOW -

See Stream Assessment Form S5-S285a for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 58 Legal Drain (Y/N): N

UTME: 1777632 ft **UTMN**: 14283769 ft

USGS Quadrangle:	Modesto
Section:	3

Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 2.2 feet
OHWM Depth: 0.3 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.12 sq.

Watershed Area: 0.12 sq mi Predominant Sub: Gravel/silt

Stream S5-S286 – Class II PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	347	0.02	0.39	
5	344	0.02	0.38	
6	344	0.02	0.38	
7	344	0.02	0.38	
8	344	0.02	0.38	
RPA 8	344	0.02	0.38	

Description of Potential Impact:

Impacts to S5-S286 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel, silt and leaf pack. There is a wide riparian corridor along the left bank and a narrow riparian buffer along the right bank where these Alternatives cross this stream. The adjacent left bank floodplain consists of mature forest while the right floodplain is transportation. This stream feeds S5-S253e which was scored using QHEI. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S286 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



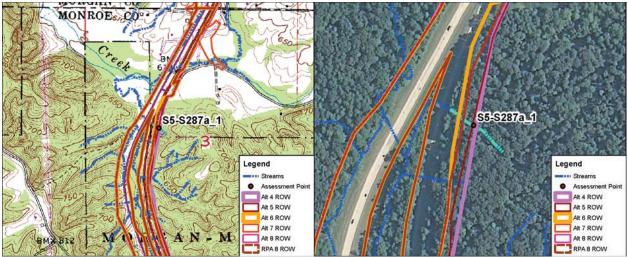
58

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S286 RIVER BASIN White River DRAINAGE AREA (mi²)	0.12
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33172 LONG. RIVER CODE RIVER MILE	
DATE 05/09/06 SCORER A Rogers COMMENTS (Long: -86.51473) (Natural-Class II)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (May of 23) Add total graph on of significant and states type of supplies and (May of 9). Find matrix areas in supplies and the supplies are supplied to the su	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 15% CLAY or HARDPAN [0 pt] 0%	Max = 4
✓ ☐ GRAVEL (2 64 mm) [9 pts] 22% ☐ MUCK [0 pts] 0% ☐ SAND (<2 mm) [6 pts]	18
Total of Percentages of 25.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 6	2
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS MAXIMUM POOL DEPTH (centimeters): 12	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
<pre></pre>	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	IIIux=00
COMMENTS OHW - 2.2' / 0.3' AVERAGE BANKFULL WIDTH (meters): 1.50	15
This information <u>must</u> also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m	
Wide >10m Moderate 5 10m Mod	
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Open Pasture Row C	rop
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Field Narrow <5m Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Co	
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Open Pasture Row C	
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Field Varrow <5m None Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Construction Fenced Pasture Mining or Construction	
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Old I	1
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Old or	1
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Old I	1
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Old Immature Fo	1
Wide >10m	1
Wide >10m Moderate 5 10m Mod	t)

ADDITIONAL STREAM	INFORMATION (This Information	Must Also be	Completed):			85-828
QHEI PERFO	ORMED? Yes No QHEIS	core	(If Yes, Atta	ach Completed QHEI For	m)	
DOWNSTRE	EAM DESIGNATED USE(S)					
WWH Name: Brya	ant Creek			_ Distance from Evalua	ted Stream	
CWH Name: _				Distance from Evalua	ted Stream _	
EWH Name:				Distance from Evaluat	ed Stream _	
	ATTACH COPIES OF MAPS, INCLUDIN	IG THE ENTIRE	WATERSHE	AREA. CLEARLY MAR	K THE SITE LOCA	ATION
JSGS Quadrangle Nar	me: Modesto	NR	CS Soil Map F	Page: 3 NRCS Sc	il Map Stream Or	der _
County: Monroe		Township /	City: Washi	ngton		
MISCELLAN		0.5	100 100			
Base Flow Conditions?	Y (Y/N): Date of last precipita	ation: U5	/09/06	Quantity: 0.0	<u> </u>	
Photograph Information	n: _					
Elevated Turbidity? (Y/	N): _ N Canopy (% open):	15%				
Vere samples collecte	d for water chemistry? (Y/N): _N	_(Note lab san	ple no. or id.	and attach results) Lab N	lumber:	
ield Measures: Te	mp (°C) Dissolved Oxygen (r	ng/l)	pH (S.U.)	Conductivity (µr	nhos/cm)	
s the sampling reach r	representative of the stream (Y/N) Y	If not, plea	se explain:			
Additional comments/d	escription of pollution impacts:					
BIOTIC EVA Performed? (Y/N): N Fish Observed? (Y/N) Frogs or Tadpoles Observed?	(If Yes, Record all observation ID number. Include appropriat Voucher? (Y/N) Salan Served? (Y/N) Voucher? (Y/N)	e field data she	ets from the Prived? (Y/N)		•	al)
	NG AND NARRATIVE DESCR			-	-	-
ELOW T	See Stream Assessme					
	S5-S286 for site to	pograph	ic map,			

Reset Form

aerial photograph, and resource photographs



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NW
Range: R1W

Range: R1W
Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 37

Legal Drain (Y/N): N

UTME: 1778160 ft **UTMN:** 14283837 ft

USGS	Quadrangle:	Modesto
•		_

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.5 feet
OHWM Depth: 0.5 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq m

Watershed Area: 0.01 sq mi Predominant Sub: Sand/gravel

Stream S5-S287a_1 – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	164	0.01	0.72
5	141	0.01	0.61
6	57	0.01	0.23
7	88	0.01	0.36
8	88	0.01	0.36
RPA 8	88	0.01	0.37

Description of Potential Impact:

Impacts to S5-S287a_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of sand and gravel. There is a wide riparian corridor along both banks of this stream. The adjacent floodplain consists of mature forest. This channel flows through a culvert under SR 37 and feeds S5-S287d. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S287a_1 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

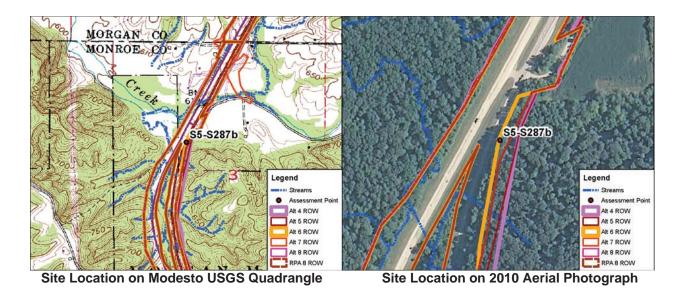


01

SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S287a_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33190 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51286) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Institute 1.	ructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHE
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
✓ GRAVEL (2 64 mm) [9 pts] 25% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	17
Total of Percentages of Oney (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock 100% SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 2	^+5
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 5 cm - 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
COMMENTS OHW = 3.5'/0.5' AVERAGE BANKFULL WIDTH (meters): 1.07	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY	
LR (Per Bank) LR (Most Predominant per Bank) LR	
Wide >10m Moderate 5 10m Mod	
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Open Pasture Row Cr	rop
Wide >10m Moderate 5 10m Marrow <5m Mature Forest, Wetland Immature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Open Pasture, Row Cr	•
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Field Open Pasture Row Cr	•
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Shrub or Old Field Narrow <5m None Mature Forest, Wetland Conservation Tillage Urban or Industrial Open Pasture, Row Cr	•
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Old I	L
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Old or	L
Wide >10m Mature Forest, Wetland Immature Forest, Shrub or Old Immature Forest, Wetland Immature Forest, Shrub or Old Immature Forest or Old Immature Fore	L
Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5	L
Moderate 5 10m Moderate 5 10m	L
Wide >10m	:) :)]

Save as pdf





Aquatic Resource:StreamUSGS Quadrangle:ModestoStream Name:Unnamed Trib. Bryant CkSection:3

 Quarter:
 NW
 Township:
 T10N

 Range:
 R1W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120201180
 OHWM Width:
 1.2 feet

Channelized/Type: Yes/Concrete Gutter OHWM Depth: 0.2 feet Stream Type: Ephemeral USCOE Jurisdiction: No Evaluation Type: HHEI IDEM Jurisdiction: No

Evaluation Score: 12 **Watershed Area:** 0.01 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Artificial

UTME: 1778154 ft **UTMN**: 14284239 ft

Stream S5-S287b – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	101	0.01	0.57
5	101	0.01	0.56
6	35	0.01	0.03
7	101	0.01	0.33
8	101	0.01	0.33
RPA 8	101	0.01	0.33

Description of Potential Impact:

Impacts to S5-S287b for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located adjacent to existing SR 37. There is a wide riparian buffer associated with the right bank and no riparian zone along the left bank. The floodplain consists of transportation on the left bank and mature forest on the right. A photograph taken downstream in the area where these Alternatives cross S5-S287b is on the second page of this form.



Photograph Taken Downstream

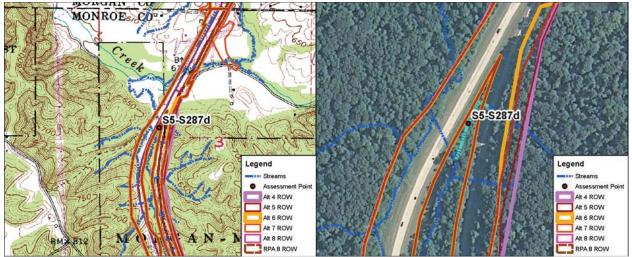


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S287b RIVER BASIN White River DRAINAGE AREA (mi²)	.01
LENGTH OF STREAM REACH (ft) 100 LAT. 39.33301 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51287) (Concrete Gutter-Modified Cla	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING:	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHEI
TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts]	Point
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0%	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 4
☐ GRAVEL (2 64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 100%	7
Total of Percentages of 0.00% (A) Substrate Percentage 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	,
	D. I D.
 Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): 	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
☐ Wide >10m ☐ Mature Forest, Wetland ☐ Conservation Tillage ☐ Moderate 5 10m ☐ Immature Forest, Shrub or Old ☐ Urban or Industrial	
Field — Open Pasture Pow Cri	an.
Narrow <5m Residential, Park, New Field J	ΣÞ
None Fenced Pasture Mining or Construction COMMENTS	_
FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	
Stream Flowing Moist Channel, isolated pools, no flow (Intermittent))
Subsurface flow with isolated pools (Interstitial) COMMENTS Dry channel, no water (Ephemeral)	L
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	
✓ None ■ 1.0 ■ 2.0 ■ 3.0 ■ 0.5 ■ 1.5 ■ 2.5 >3	
STREAM GRADIENT ESTIMATE	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/1	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N):_Y Date of last precipitation:04/24/12 Quantity:0.15
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 15%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form S5-S287b for site topographic map, aerial photograph, and resource photographs

Save as pdf





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NW Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 25

Legal Drain (Y/N): N

UTME: 1777875 ft **UTMN**: 14283861 ft

US	SGS	Quadrangle:	Modesto
_			_

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 1.2 feet
OHWM Depth: 0.2 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq m

Watershed Area: 0.01 sq mi Predominant Sub: Gravel/sand

Stream S5-S287d – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	371	0.01	0.00
5	371	0.01	0.00
6	371	0.01	0.00
7	371	0.01	0.00
8	371	0.01	0.00
RPA 8	371	0.01	0.00

Description of Potential Impact:

Impacts to S5-S287d for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel is located inside the bifurcated median of SR 37 and its substrate consists predominantly of gravel, sand, and leaf pack. There is a narrow riparian buffer associated with this stream. The adjacent floodplain consists of INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S287d are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

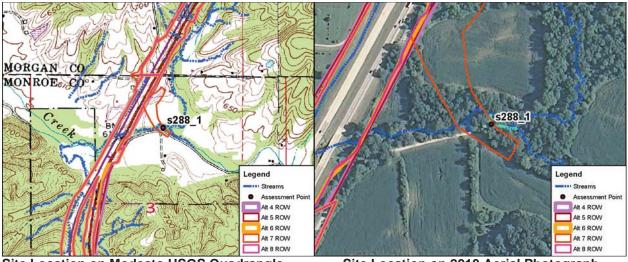


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S287d RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33197 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.51387) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 10% BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 14%	Points
BEDROCK [16 pt] 0% FINE DETRITUS [3 pts] 0%	Substrat Max = 40
COBBLE (65 256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt] 0% GRAVEL (2 64 mm) [9 pts] 55% MICK [0 pts] 0%	IVIAX = 40
✓ GRAVEL (2 64 mm) [9 pts] 55% MUCK [0 pts] 0% SAND (<2 mm) [6 pts]	20
Total of Percentages of 5 00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### Output	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): ### A	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Moderate 5 10m Noderate 5 10m PLOODPLAIN QUALITY Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FloodPlain Quality Residential, Park, New Field Open Pasture, Row Completed Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS None Fenced Pasture Mining or Construction COMMENTS	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Note Proceed (Most Predominant per Bank) RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): O.40 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row C None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 14' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m · 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m · 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 1.2'/0.2' This information must also be completed RIPARIAN WIDTH RIPARIAN WIDTH RIPARIAN WIDTH RIPARIAN WIDTH RIPARIAN Wide > 10m RIPARIAN WIDTH (meters): 1	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed)	<u>):</u>	S5-S287a
QHEI PERFORMED? Yes V No QHEI Score (If Yes, A	Attach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream	0.50
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSH	IED AREA. CLEARLY MARK THE SITE L	OCATION
USGS Quadrangle Name: Modesto NRCS Soil Ma	p Page: NRCS Soil Map Stream	n Order
	shington	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): Y _ Date of last precipitation: 04/24/12	Quantity: 0.15	
Photograph Information:		
Elevated Turbidity? (Y/N): N Canopy (% open): 100%		
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or in	d. and attach results) Lab Number:	
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.)	Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:		
Additional comments/description of pollution impacts:		
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections option ID number. Include appropriate field data sheets from the Fish Observed? (Y/N) N Salamanders Observed? (Y/N) Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinverteb Comments Regarding Biology:	Primary Headwater Habitat Assessment M	anual)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM Include important landmarks and other features of interest for site evaluation	· —	-
See Stream Assessment Form S5-S287d for site topographic map aerial photograph, and resource p		

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Reset Form



Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NE
Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 37

Evaluation Score: 37 Legal Drain (Y/N): N

UTME: 1779392 ft **UTMN**: 14285229 ft

USGS Quadrangle:	Modesto
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Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 8.4 feet
OHWM Depth: 0.8 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.01 sq n

Watershed Area: 0.01 sq mi Predominant Sub: Sand/gravel

Stream S5-S288_1 - Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	0	0.00	0.00
5	0	0.00	0.00
6	0	0.00	0.00
7	50	0.01	0.00
8	0	0.00	0.00
RPA 8	0	0.00	0.00

Description of Potential Impact:

Impacts to S5-S288_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel and sand. There is a wide riparian corridor consisting of immature forest on the right bank and a moderately wide riparian corridor on the left bank consisting mostly of transportation use. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S288_1 are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

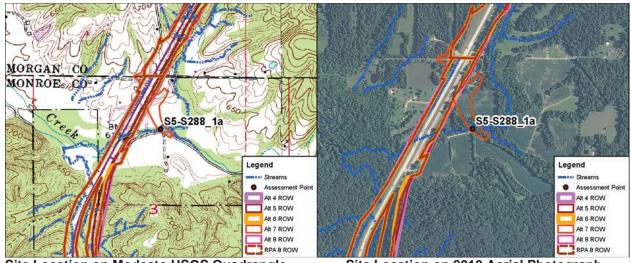


|--|

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S288_1 RIVER BASIN White River DRAINAGE AREA (mi²)	5.72
LENGTH OF STREAM REACH (ft) 191 LAT. 39.33570 LONG. RIVER CODE RIVER MILE	
DATE 07/10/12 SCORER BLA Inc. COMMENTS (Long: -86.50847) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0% 0%	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts] 40% MUCK [0 pts] 0% SAND (<2 mm) [6 pts] 60% ARTIFICIAL [3 pts] 0%	17
Orano (12 mm) [o pto]	
Bldr Slabs, Boulder, Cobble, Bedrock Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 2	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts]	
	0
COMMENTS Old Meadow MAXIMUM POOL DEPTH (centimeters): 0	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankful Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] (Check ONL Y one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' AVERAGE BANKFULL WIDTH (meters): 2.80	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' AVERAGE BANKFULL WIDTH (meters): 2.80 This information must also be completed	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 2.80 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: RIVER LEFT (L) and Right (R) as looking downstream ANOTE: RIVER LEFT (L) RIVER LEF	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' AVERAGE BANKFULL WIDTH (meters): 2.80 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' AVERAGE BANKFULL WIDTH (meters): 2.80 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) Vide >10 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] 2.80 COMMENTS OHW 8.4'/0.8' AVERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) L R (Most Predominant per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10 m Immature Forest, Shrub or Old Wide Pasture Pow Completed Immature Forest, Shrub or Old Open Pasture Pow Completed Ope	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆ NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Wide >10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH Residential, Park, New Field	Width Max=30
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3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Wide >10m Mature Forest, Shrub or Old Field Narrow <5m None Residential, Park, New Field None COMMENTS Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
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BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 8.4'/0.8' AVERAGE BANKFULL WIDTH (meters): 2.80 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream AND RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5 10m Mature Forest, Shrub or Old Urban or Industrial Field Open Pasture, Row Conservation Tillage Open Pasture, Row Conservati	width Max=30 20 crop

	S5-S288 1			
ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):				
QHEI PERFORMED?				
DOWNSTREAM DESIGNATED USE(S)				
WWH Name: Bryant Creek	_ Distance from Evaluated Stream			
CWH Name: _	_ Distance from Evaluated Stream			
EWH Name:	Distance from Evaluated Stream			
MAPPING: ATTACH COPIES OF MAPS, INCLUDING TH	E ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION			
USGS Quadrangle Name:_Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order			
County: Monroe	ownship / City:			
MISCELLANEOUS				
Base Flow Conditions? (Y/N):_N Date of last precipitation:_	06/30/12 Quantity: 0.00			
Photograph Information: P35 - Down, P36 - Up				
	10%			
Were samples collected for water chemistry? (Y/N): (Not	e lab sample no. or id. and attach results) Lab Number:			
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)			
Y				
Is the sampling reach representative of the stream (Y/N)	not, please explain:			
Additional comments/description of pollution impacts:				
DIATIO EVALUATION				
BIOTIC EVALUATION				
· /	ucher collections optional. NOTE: all voucher samples must be labeled with the site			
	data sheets from the Primary Headwater Habitat Assessment Manual)			
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamande	rs Observed? (Y/N) N Voucher? (Y/N) N N			
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N	quatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)			
Comments Regarding Biology:				
DRAWING AND NARRATIVE DESCRIPTI	ON OF STREAM REACH (This <u>must</u> be completed):			
Include important landmarks and other features of interes	st for site evaluation and a narrative description of the stream's location			
	По тип			
See Stream Assessment				
S5-S288_I for site top				
aerial photograph, and	resource photographs			





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: NE Range: R1W

Legal Drain (Y/N):

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 26

UTME: 1779272 ft **UTMN:** 14285223 ft

Ν

USGS Quadrangle: Modesto

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 3.9 feet
OHWM Depth: 1.1 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.09 sq

Watershed Area: 0.09 sq mi Predominant Sub: Artificial/clay

	Stream S5-S288_1a – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	0	0.00	0.00		
5	0	0.00	0.00		
6	0	0.00	0.00		
7	52	0.01	0.00		
8	0	0.00	0.00		
RPA 8	0	0.00	0.00		

Description of Potential Impact:

Impacts to S5-S288_1a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. This recovered channel consists of artificial river rock over clay. There is a wide riparian buffer along both banks of the channel, which is situated in between East Bryant Creek Road and Bryant Creek. The adjacent floodplain consists of mature forest along both banks of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S288_1a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

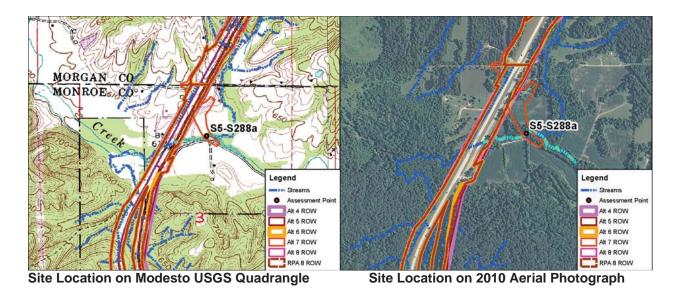


SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S288_1a RIVER BASIN White River DRAINAGE AREA (mi²)	0.09
LENGTH OF STREAM REACH (ft) 52 LAT. 39.33569 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.50890) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] D'' LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0%	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 30%	Max = 4
GRAVEL (2 64 mm) [9 pts]	6
SAND (<2 mm) [6 pts] 10% ARTIFICIAL [3 pts] 60%	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3	
	De al Dec
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 2	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
	Bankful Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] (Check ONL Y one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] \(\left\) 1.0 m (\(<=3'\) 3") [5 pts]	Width
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BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.9'/1.1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Wide >10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Mining or Construction Mining or Construction	Width Max=30
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BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.9'/1.1' AVERAGE BANKFULL WIDTH (meters): 1.20 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH RIPARIAN WIDTH L R (Per Bank) Wide >10m Wide >10m Mature Forest, Wetland Moderate 5 10m Mining or Conservation Tillage Immature Forest, Shrub or Old Residential, Park, New Field None Residential, Park, New Field Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Width Max=30
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BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.971.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH L R (Most Predominant per Bank) Wide >10 m Moderate 5 10 m Moderate 5 10 m Residential, Park, New Field Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.9'/1.1' AVERAGE BANKFULL WIDTH (meters): 1.20 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Conservation Tillage) Moderate 5 10m Mature Forest, Wetland Conservation Tillage Moderate 5 10m Residential, Park, New Field Open Pasture, Row Conservation Narrow <5m Residential, Park, New Field Open Pasture, Row Conservation None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.971.1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH L R (Most Predominant per Bank) Wide >10 m Moderate 5 10 m Moderate 5 10 m Residential, Park, New Field Narrow <5 m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 3.0	Width Max=30



See Stream Assessment Form S5-S288_1a for site topographic map, aerial photograph, and resource photographs





Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name:Bryant CreekSection:3Quarter:NWTownship:T10N

Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 35.0 feet Channelized: **OHWM Depth:** 4.0 feet No **Stream Type:** Perennial **USCOE Jurisdiction:** Yes **Evaluation Type: IDEM Jurisdiction:** QHEI Yes

Evaluation Score: 66.5 **Watershed Area:** 5.72 sq mi **Legal Drain (Y/N):** N **Predominant Sub:** Gravel

UTME: 1779269 ft **UTMN**: 14285262 ft

Stream S5-S288a – Warm Water Habitat				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	120	0.10	0.06	
5	176	0.14	0.07	
6	116	0.09	0.06	
7	300	0.24	0.77	
8	108	0.09	0.06	
RPA 8	108	0.09	0.06	

Description of Potential Impact:

Impacts to S5-S288a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. At the time of evaluation, this stream is a perennial stream with excellent habitat development and high sinuosity where the Alternatives cross this stream. The predominant substrate is gravel. The stream has a wide riparian corridor associated with its right bank and a narrow riparian buffer along its left bank. The adjacent floodplain is dominated by forest land on the right and transportation (East Bryant Creek Road) on the left. Photographs taken upstream and downstream in the area where the proposed alternatives cross S5-S288a are on the second page of this form. Implementation of RPA 8 will decrease the amount of impacts at this location.



Photograph Taken Upstream



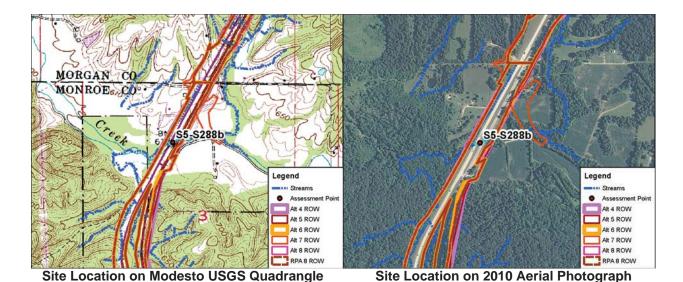
Photograph Taken Downstream

DEM	Sample #	1.2	bioSample #	MEI (Qualitative Ha Stream Name		Location	
		Sample Date	County	Macro Sample Type	M. Habitat		
P	KSS CEW		Monroe	Macro Sample Type	Complete	QHEI Score:	66.5
BUMBE Omme Arount A	ESTRATE CO EST TYPES DR/SLABS [10 ULDER [9] BBILE [8] WAVEL [7] MD [6] DROCK [5] ER OF BEST ENDEROUT BA WERHANGIN	TYPES: 4 or 2 3 or 2 3 or 2 WKS [1] GVEGETATION [1]	P R HARDPAN(DETRITUS) DETRITUS(MUCK(2) DETRITUS(SCOTE Natura (Scote n	P R LIM P R LIM AT LIM	RIGIN ESTONE [1] S[1] FLANDS [0] EDPAN [0] IDSTONE [0] VARP [0] USTRINE [0] LE [-1] L FINES [-2] Very small amount ity; 3-Highest te demeter log pools.) S. BACKWATERS [C. MACROPHYTES]	Check ONE (Or 2 & DEXTENSIVE > 7: MODERATE 25-	Substra Substra Maximu 20 arginal T average) 5% [11] 75% [7] % [3] T < 5% [
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omme	ents						V
NO HE	EROSION NE/LITTLE[3 DOERATE[2] AVY/SEVERE	RIPA	ARIAN WIDTH > 50m [4] PRATE 10-50m [3] XXV 5-10m [2] NARROW [1]	FOREST, SWAMP [3] SHRUBOR OLD FIEL RESIDENTIAL, PARK FENCED PASTURE [1	D[2] NEW FIELD[1] Indica	CONSERVATION TIL I URBAN OR INDUST MINING / CONSTRU te predominant land use(s) 00m riparian. Riparia Maximu	RUAL [0] ACTION [0
Check Comme	MUM DEPT ONE (ONLY!) Im[6] 7-<1m[4] 1-<0.7m[2] 2-<0.4m[1] 0.2m[0] ents	TH CHAN Check ONI POOL WI POOL WI POOL WI POOL WI ROOL	NEL WIDTH E (Or 2 & average) DTH > RIFFLE WID DTH = RIFFLE WID DTH < RIFFLE WID ES must be large eno	CURRENT Check ALL TH[Z] ☐ TORRENTIAL[- TH[1] ☐ VERY FAST[1] TH[0] ☐ FAST[1] MODERATE[1]	ate for reach - poo	TENT [-2] Poc Curre is and offles. Maximu	ment on be or fact y Confact of the or fact of the
BEST	AREAS 5 - 100 AREAS < 5 cm [metri	om[1] [3 MAXI n c=0]	MUM < 50cm [1] [MOD. STABLE (e.g., Large UNSTABLE (e.g., Fine Gran LOW [2-4] %POOL 6-10]	Gravel)[1] [2] [2] [2] [3] [4] [5] [6] [7] [7] [7] [7] [7] [7] [7] [7] [7] [7	LOW[1] RIFE MODERATE[0] RIFE EXTENSIVE[-1] Maximu [DE: Gradier Maximu	3

(10139) OHM - 32, × A.

DEM 02/06/10

emple # bloSam			Location	
greeyor Sample Date	County	Macro SampleType	M Habitat Complete	QHEI Score 66.
Impacts/Miscella	neous		12 - 110 - 110	
Major Suspected Imp None Industrial WWTP Agricultural Uvarioak Silvicultura Construction Urban Runoff Poliution Impact Comme	scts (Check all that apply Suburban Channelization Riparian Removal Flow Alteration CSOs Mining Landfills Hatural	Subjective ration Anotheric ratio Canopy Cover (9 General OHEI Not	g (1-19): 9 % Ru % Glid % Open): 75 % Poo	e: Ho is reach representativ
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Aquatic Resource:StreamUSGS Quadrangle:ModestoStream Name:Bryant CreekSection:3

 Quarter:
 NW
 Township:
 T10N

 Range:
 R1W
 IDEM 303(d) List:
 N/A

 Watershed:
 05120201180
 OHWM Width:
 35.0 feet

Channelized: **OHWM Depth:** 4.0 feet No **Stream Type:** Perennial **USCOE Jurisdiction:** Yes **Evaluation Type: IDEM Jurisdiction:** QHEI Yes **Evaluation Score:** 64 Watershed Area: 5.72 sq mi

Legal Drain (Y/N): N Watersned Area: 5.72 sq m
Predominant Sub: Gravel

UTME: 1778499 ft **UTMN**: 14285084 ft

Stream S5_S288b- Warm Water Habitat			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	199	0.09	0.00
5	199	0.09	0.00
6	199	0.09	0.00
7	199	0.09	0.00
8	199	0.09	0.00
RPA 8	199	0.09	0.00

Description of Potential Impact:

Impacts to S5_S288b at this location for the Alternatives are listed in the table above. Segments S5_S288b and S5_S288c were evaluated together. At the time of evaluation, this stream is a perennial stream with fair habitat development and moderate sinuosity where these Alternatives cross this stream. The predominant substrate is gravel. The stream has a narrow riparian corridor associated with both its banks. The adjacent floodplain is dominated by forest land. Photographs taken upstream and downstream in the area where the proposed alternatives cross S5_S288c are on the second page of this form. All of the Alternatives possess similar impacts at this location.



Photograph Taken Upstream



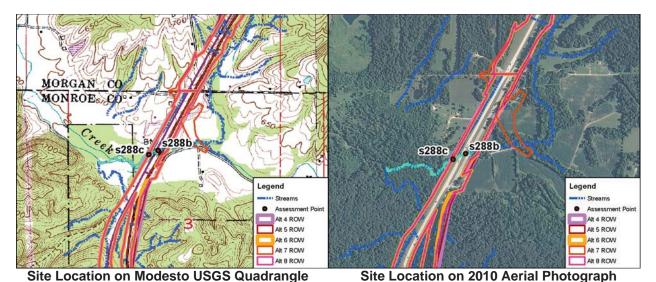
Photograph Taken Downstream

Sec5-528/ b. c esson OWO allo locates Studies OHE (enalitative) salitative valuation radex is a binSamole # Stream Name Location Briant @ SR-37 bridge Creek Surveyor Sample Date County Macro SampleType QHEI Score: 104 Habitat 6/29/95 MONROS Complete 1-Substrate (20 points maximum) Substrate Score: Check 1 Predominant Pool & 1 Predominant Riffle Substrate Quality (check only 1, or check 2 and AVERAGE) Chack all that are present P=Pool, R=Riffle Substrate Origin **Predominant** Present Present Predominant [Limestone(1) Hardpan(0) Lacustrine(0) PR Titls[1] PR PR Sandstone(D) Shale(4) Ridra/Stabs(10) MI 111 Hardpan(4) Wetlands(0) Rio/Rap(0) Coal fines(-7) Boulders(9) 7 Detritus(3) Silt Cover Embeddedness Cobble(8) Mucid 2) Silt heavy(-2) Extensive(-2) V Gravel(7) Sil(2) Silt moderate(-1) Moderate(-1) Sand(6) Sludge(1) Silt normal(0) Low/Normal(0) Bedrock(5) |Artificial(0) Sit free(1) None(1) NOTE: ignore studge originating from point >4 substrates present(2) sources; score based on natural substrates. Comments: 2-Instream Cover (20 points maximum Instream Cover Score: 12 Type (check ALL that apply) Amount (check only 1, or 2 and AVERAGE) Undercut banks(1) Weep pools(2) Oxbows(1) Extensive >75% (11) "[Overhanging vegetation(1) Roofwads(1) Aquatic macrophytes(1) ViModerate 25-75% (7) Shallows(in slow water)(1) Boulders(1) Littigs and woody debns(1) Sparse 5-25% (3) Rootmats(1) Comments: Nearly absent <5% (1) 8 3-Channel Morphology (20) (check only one per category, OR two and AVERAGE) Channel Score: 13.51 Sinvosity Development Channelization Stability Modifications/Other Excellent (7) High (4) Wone (6) High (3) Snapging Impound Moderate (2) *- Moderata (3) Good (5) Recovered (4) Relocation Islands Low (2) WFair (3) -Low (1) /1 5 Recovering (3) Ganopy Removal Leveed None (1) Poor (1) Recent or no recovery (1) Bank shaping Dredging Commants: One side channel modifications dam too end I was bearn end at site 4-Riparian Zone & Bank Erosion (10 points maximum) Riparian Score: 45 Left/Right banks looking downstream (For each category, check only one per bank, OR two per bank and AYERAGE). Riperlan width Eroslon/Runolf-Floodplain quality (past 100 ft Riparian) Bank Erosion L R (per bank) R (most predominant per bank) L R (per bank) LR Wide >50m (4) V Forest, Swamp (3) Conservation Tillage (1) None or little [3] Moderate 10-50m (3) Shrub or Old field (2) Urban or industrial (0) | Moderate (2) Warrow 5-10m (2) Residential, Park, New field (1) Heavy/Severe (1) Mining, Construction (0) Very narrow <5m (1) Fenced pasture (1) Open Pasture/Rowcrop (0) None (0) Comments: 5a-Pool/Glide Quality (12 points maximum Pool/Glide Score: 9 Max pool depth (check one) Morphology (check only one, Pool/Run/Riffle current velocity (check all that apply) OR check two and AVERAGE! (51m (6) Eddies (1) Torrential (-1) 0.7-1m (4) Pool width > rithe width (2) Fast (1) Interstitial (-1) 0.4-0.7m (2) Pool width = riffle width (1) Moderate (1) Intermittent (-2) 0.2-0.4m (1) Pool width < riffle width (0) -15low (1) No pool (0) <0.2m (pnoi=0) Comments: 5b-Riffle/Run Quality (8) (check only one per category, OR two and AVERAGE) Riffle/Run Score: Rifflefron depth (check one) Riffle/min substrate Rifflehun embeddedness Generally-10cm, Max>50cm (4) Monnal/Low (1) Stable-e.g. cobble, boulder (2) Extensive (-1) Mod. stable-e.g. pea gravel (1) Generally>10cm, Max<50cm(3) Moderate (0) None (2) Generally 5-10cm [1] "Unstable-e.g. sand, gravel (3) No riffle (0) Generally<5cm (riffle=0) Comments:

6-Gradient (10 points maximum) Gradient Score: 10 Average width: 5.8 ml Gradient (timile) Drainage Area: 5 (square miles) Comments:

19' x 25'

npin# bioSamp			Location		ACCUMENTATION OF STREET
	? BNAN	IT CREEK		SR37	
	County	Macro SampleType	[] Habitat	QHEI S	Score: 7 d
16/29/2025	MORGAN		Complete	5 3 Jan 2	127.1
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Major Suspected Impa	cts (Check all that apply	a)	Miscellaneous O	(E) Information	
None	Suburban	Subjective radii	ng (1-10): 7 % FG	ffle: 30 is reach	representative
[]]Industrial	Channelization		700 - V		m? 428
□ wwrp	Riparian Removal	Acstretic rate	ng (1-10): 7 % F	ide: 10 =-	0
Apricultural	Flow Alteration	Canopy Cover (% Open}[76] % P	ool: [30]	
Livesteck	CSOs	General OHE! Not	les:		
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Aquatic Resource: Stream USGS Quadrangle: Modesto

Stream Name: **Bryant Creek** Section: 3 Quarter: NW Township: T10N Range: R1W IDEM 303(d) List: N/A Watershed: 05120201180 OHWM Width: 35.0 feet

Channelized: **OHWM Depth:** 4.0 feet No **Stream Type:** Perennial **USCOE Jurisdiction:** Yes **Evaluation Type: IDEM Jurisdiction:** QHEI Yes **Evaluation Score:** 64 Watershed Area: 5.72 sq mi

Legal Drain (Y/N): N Predominant Sub: UTME: 1778499 ft UTMN: 14285084 ft

	Stream S5_S288c – Warm Water Habitat				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	161	0.07	0.01		
5	159	0.07	0.01		
6	140	0.06	0.00		
7	140	0.06	0.00		
8	140	0.06	0.00		
RPA 8	140	0.06	0.00		

Gravel

Description of Potential Impact:

Impacts to S5_S288c at this location for the Alternatives are listed in the table above. Segments S5_S288b and S5_S288c were evaluated together. At the time of evaluation, this stream is a perennial stream with fair habitat development and moderate sinuosity where these Alternatives cross this stream. The predominant substrate is gravel. The stream has a narrow riparian corridor associated with both its banks. The adjacent floodplain is dominated by forest land. Photographs taken upstream and downstream in the area where the proposed alternatives cross S5_S288c are on the second page of this form. Implementation of RPA 8 will decrease the amount of impacts at this location.



Photograph Taken Upstream



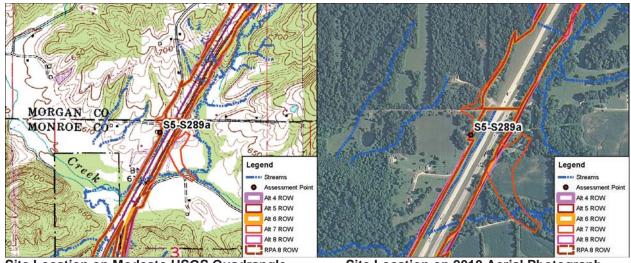
Photograph Taken Downstream

Sec5-528/ b. c esson OWO allo locates Studies OHE (enalitative) salitative valuation radex is a binSamole # Stream Name Location Briant @ SR-37 bridge Creek Surveyor Sample Date County Macro SampleType QHEI Score: 104 Habitat 6/29/95 MONROS Complete 1-Substrate (20 points maximum) Substrate Score: Check 1 Predominant Pool & 1 Predominant Riffle Substrate Quality (check only 1, or check 2 and AVERAGE) Chack all that are present P=Pool, R=Riffle Substrate Origin **Predominant** Present Present Predominant [Limestone(1) Hardpan(0) Lacustrine(0) PR Titls[1] PR PR Sandstone(D) Shale(4) Ridra/Stabs(10) MI 111 Hardpan(4) Wetlands(0) Rio/Rap(0) Coal fines(-7) Boulders(9) 7 Detritus(3) Silt Cover Embeddedness Cobble(8) Mucid 2) Silt heavy(-2) Extensive(-2) V Gravel(7) Sil(2) Silt moderate(-1) Moderate(-1) Sand(6) Sludge(1) Silt normal(0) Low/Normal(0) Bedrock(5) |Artificial(0) Sit free(1) None(1) NOTE: ignore studge originating from point >4 substrates present(2) sources; score based on natural substrates. Comments: 2-Instream Cover (20 points maximum Instream Cover Score: 12 Type (check ALL that apply) Amount (check only 1, or 2 and AVERAGE) Undercut banks(1) Weep pools(2) Oxbows(1) Extensive >75% (11) "[Overhanging vegetation(1) Roofwads(1) Aquatic macrophytes(1) ViModerate 25-75% (7) Shallows(in slow water)(1) Boulders(1) Littigs and woody debns(1) Sparse 5-25% (3) Rootmats(1) Comments: Nearly absent <5% (1) 8 3-Channel Morphology (20) (check only one per category, OR two and AVERAGE) Channel Score: 13.51 Sinvosity Development Channelization Stability Modifications/Other Excellent (7) High (4) Wone (6) High (3) Snapging Impound Moderate (2) *- Moderata (3) Good (5) Recovered (4) Relocation Islands Low (2) WFair (3) -Low (1) /1 5 Recovering (3) Ganopy Removal Leveed None (1) Poor (1) Recent or no recovery (1) Bank shaping Dredging Commants: One side channel modifications dam too end I was bearn end at site 4-Riparian Zone & Bank Erosion (10 points maximum) Riparian Score: 45 Left/Right banks looking downstream (For each category, check only one per bank, OR two per bank and AYERAGE). Riperlan width Eroslon/Runolf-Floodplain quality (past 100 ft Riparian) Bank Erosion L R (per bank) R (most predominant per bank) L R (per bank) LR Wide >50m (4) V Forest, Swamp (3) Conservation Tillage (1) None or little [3] Moderate 10-50m (3) Shrub or Old field (2) Urban or industrial (0) | Moderate (2) Warrow 5-10m (2) Residential, Park, New field (1) Heavy/Severe (1) Mining, Construction (0) Very narrow <5m (1) Fenced pasture (1) Open Pasture/Rowcrop (0) None (0) Comments: 5a-Pool/Glide Quality (12 points maximum Pool/Glide Score: 9 Max pool depth (check one) Morphology (check only one, Pool/Run/Riffle current velocity (check all that apply) OR check two and AVERAGE! (51m (6) Eddies (1) Torrential (-1) 0.7-1m (4) Pool width > rithe width (2) Fast (1) Interstitial (-1) 0.4-0.7m (2) Pool width = riffle width (1) Moderate (1) Intermittent (-2) 0.2-0.4m (1) Pool width < riffle width (0) -15low (1) No pool (0) <0.2m (pnoi=0) Comments: 5b-Riffle/Run Quality (8) (check only one per category, OR two and AVERAGE) Riffle/Run Score: Rifflefron depth (check one) Riffle/min substrate Rifflehun embeddedness Generally-10cm, Max>50cm (4) Monnal/Low (1) Stable-e.g. cobble, boulder (2) Extensive (-1) Mod. stable-e.g. pea gravel (1) Generally>10cm, Max<50cm(3) Moderate (0) None (2) Generally 5-10cm [1] "Unstable-e.g. sand, gravel (3) No riffle (0) Generally<5cm (riffle=0) Comments:

6-Gradient (10 points maximum) Gradient Score: 10 Average width: 5.8 ml Gradient (timile) Drainage Area: 5 (square miles) Comments:

19' x 25'

npin# bioSamp			Location		ACCUMENTATION OF STREET
	? BNAN	IT CREEK		SR37	
	County	Macro SampleType	[] Habitat	QHEI S	Score: 7 d
16/29/2025	MORGAN		Complete	5 3 Jan 2	127.1
pacts/Miscellar	eous	10.00.00 S.EU	the lates were		y .
Major Suspected Impa	cts (Check all that apply	a)	Miscellaneous O	(E) Information	
None	Suburban	Subjective radii	ng (1-10): 7 % FG	ffle: 30 Is reach	representative
[]]Industrial	Channelization		700 - V		m? 428
□ wwrp	Riparian Removal	Acstretic rate	ng (1-10): 7 % F	ide: 10 =-	0
Apricultural	Flow Alteration	Canopy Cover (% Open}[76] % P	ool: [30]	
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Urban Runoff	☐ Natural		20		
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Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NE
Range: R1W

Range: R1W
Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 25

Legal Drain (Y/N): N

UTME: 1778813 ft **UTMN:** 14286060 ft

USGS	Quadrangle:	Modesto
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Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 1.7 feet
OHWM Depth: 0.4 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.05 sq n

Watershed Area: 0.05 sq mi Predominant Sub: Gravel/silt

Stream S5-S289a – Class I PHWH				
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)	
4	17	0.01	0.00	
5	8	0.01	0.00	
6	8	0.01	0.00	
7	107	0.01	0.14	
8	8	0.01	0.00	
RPA 8	8	0.01	0.00	

Description of Potential Impact:

Impacts to S5-S289a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of gravel, silt, and muck. There is no riparian buffer associated with this channel. The floodplain consists of residential land along the right floodplain area and transportation (North Turkey Track Road) along the left bank. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



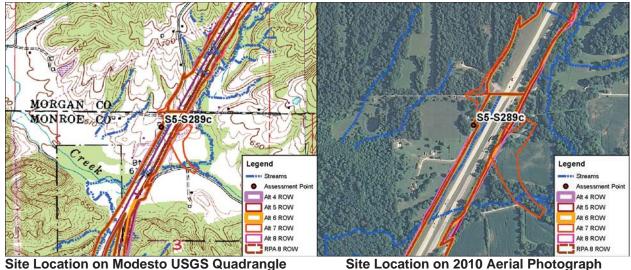
25

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S289a RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.05
LENGTH OF STREAM REACH (ft) 180 LAT. 39.33800 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51051) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERED RECO	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65 256 mm) [12 pts] GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of O00% ARTIFICIAL [3 pts] O% Substrate Percentage (B)	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 100% TOTAL NUMBER OF SUBSTRATE TYPES: 12	A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	Pool Depth Max = 30
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Bankfull Width Max=30
COMMENTS OHW = 1.7'/0.4' AVERAGE BANKFULL WIDTH (meters): 0.52	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Narrow <5m Y Residential, Park, New Field Open Pasture, Row Cro None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS	-
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): None 1.0 2.0 3.0 3.0 3.3 3.0 3.0 3.0	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek Distance from Evaluated Stream O.22 CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
JSGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y _ Date of last precipitation: 04/24/12 _ Quantity: 0.15
Photograph Information:
Elevated Turbidity? (Y/N):N Canopy (% open):100%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
S the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts: BIOTIC EVALUATION
Performed? (Y/N):N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the sit ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) N Voucher? (Y/N) N
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form S5-S289a for site topographic map, aerial photograph, and resource photographs

Save as pdf





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural Ephemeral **Stream Type: Evaluation Type:** HHEI 35

Evaluation Score: Legal Drain (Y/N): Ν

UTME: 1778792 ft **UTMN:** 14286008 ft

USGS Quadrangle:	Modesto
Section:	3

LICCE Oundrandle

T10N Township: IDEM 303(d) List: N/A OHWM Width: 1.7 feet OHWM Depth: 0.4 feet **USCOE** Jurisdiction: Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.05 sq mi Predominant Sub: Gravel/silt

Stream S5-S289c – Class I PHWH							
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)				
4	20	0.01	0.00				
5	19	0.01	0.00				
6	19	0.01	0.00				
7	19	0.01	0.00				
8	19	0.01	0.00				
RPA 8	19	0.01	0.00				

Description of Potential Impact:

Impacts to S5-S289c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and silt. There is no riparian buffer associated with this channel's left bank and a wide riparian buffer along its right bank. The floodplain consists of a tract immature forest land along the right floodplain area and transportation (North Turkey Track Road) along the left bank. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289c are on the second page of this form.



Photograph Taken Upstream



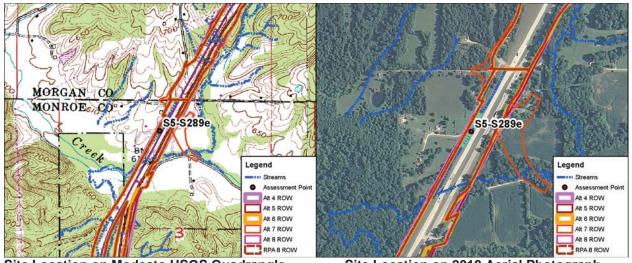
Photograph Taken Downstream



LCO Coation 5		IIIEI OOOIC (suii	101 111011103 1, 2, 3)	
SITE NAME/LOCATION I-69 Section 5	5-S289c RIVER BASIN	White Diver		0.05
OTTE NOMBER		White River	DRAINAGE AREA	
2 diagram		g: -86.51059) (Natu		MILE
NOTE: Complete All Items On This Form	- Refer to "Field Evalua	tion Manual for Ohio	o's PHWH Streams" fo	or Instructions
STREAM CHANNEL NONE / NA MODIFICATIONS:	URAL CHANNEL	OVERED RECOVE	RING RECENT OR N	NO RECOVERY
SUBSTRATE (Estimate percent of every state)				
(Max of 32). Add total number of signific	**	x of 8). Final metric scor		HHE Metri
TYPE P BLDR SLABS [16 pts]	RCENT TYPE 0% SIL	LT [3 pt]	PERCENT 25%	Point
BOULDER (>256 mm) [16 pts]	0 % □□ LE	AF PACK/WOODY DE		Substan
BEDROCK [16 pt]		NE DETRITUS [3 pts]	15%	Substra Max = 4
COBBLE (65 256 mm) [12 pts]	000/	.AY or HARDPAN [0 pt]	0%	
GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts]		JCK [0 pts] RTIFICIAL [3 pts]	0%	15
			1	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock		ostrate Percentage eck 100%	(B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	TRATE TYPES: 12	TOTAL NUMBER OF	SUBSTRATE TYPES:	3
2. Maximum Pool Depth (Measure the m	aximum pool depth within t	he 61 meter (200 ft) eva	Laluation reach at the time	of Pool Dep
evaluation. Avoid plunge pools from road				Max = 3
> 30 centimeters [20 pts]		5 cm - 10 cm [15 pts]		
> 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts]		5 cm [5 pts] IO WATER OR MOIST	CHANNEL [0 pts]	5
COMMENTS		MAXIMUM POOL	DEPTH (centimeters):	4
3. BANK FULL WIDTH (Measured as the			LY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]		1.0 m - 1.5 m (> 3' 3" - 4 1.0 m (<=3' 3") [5 pts]	1' 8") [15 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		1.0 m (1-3 0) [0 pts]		Max-00
COMMENTS OHW = 4.5'/0.4'		AVEDAGE BANKI	FULL WIDTH (meters):	1.37
OGMMENTO		AVERAGE BARRI	OLE WIDTH (meters).	15
		ust also be completed		
RIPARIAN ZONE AND FLOODF RIPARIAN WIDTH	LAIN QUALITY ☆NOTE FLOODPLAIN QUALITY	: River Left (L) and Righ	t (R) as looking downstrea	am☆
L R (Per Bank)	L R (Most Predomina	ant per Bank)	L R	
Wide >10m	☐ ✓ Mature Forest, V	Vetland	Conservation T	illage
Moderate 5 10m	Immature Forest Field	t, Shrub or Old	☑ Urban or Indust	trial
☐ Narrow <5m	Residential, Park	Now Field	Open Pasture,	Row Crop
		K, New Field [
None COMMENTS	Fenced Pasture	L	Mining or Cons	truction
FLOW DECIME (At Time of Fire	vertices) (Charle ONII) Versa h			
FLOW REGIME (At Time of Eva	/ ` `		olated pools, no flow (Inte	rmittent)
Subsurface flow with isolated poo	s (Interstitial)		water (Ephemeral)	
COMMENTS_				
SINUOSITY (Number of bends p	er 61 m (200 ft) of channel)	(Check ONLY one box):		
None 0.5	1.0 1.5	2.0 2.5	3.0	
<u> </u>	1.0	_ 2.0	L ^3	
STREAM GRADIENT ESTIMATE				
	Moderate (a success)	Madaysta ta O	, oro	ro (40 6)1100 m
Flat (0.5 ft/100 ft)	Moderate (2 ft/100 ft)	Moderate to Se	vere Seve	re (10 ft/100 ft)

ADDITIONAL STREAM	M INFORMATION (This Information I	Must Also	be Completed):			S5-S2890
QHEI PERF	ORMED? Yes No QHEISo	core	(If Yes, Atta	ch Completed QHEI Form))	
DOWNSTRE	EAM DESIGNATED USE(S)					
WWH Name: Brya	ant Creek			_ Distance from Evaluated	d Stream	0.21
CWH Name:		Distance from Evaluated				
EWH Name:				Distance from Evaluated	Stream	
	ATTACH COPIES OF MAPS, INCLUDIN	IG THE <u>EN</u>	ITIRE WATERSHED	DAREA. CLEARLY MARK	THE SITE LO	OCATION
USGS Quadrangle Na	me:_Modesto		NRCS Soil Map P	Page: NRCS Soil N	Лар Stream	Order
County: Monroe		Towns	ship / City: Washi	ngton		
MISCELLAN	IEOUS					
Base Flow Conditions?	? (Y/N):_Y Date of last precipita	ation:_	04/24/12	Quantity: 0.15		
Photograph Information	n:					
Elevated Turbidity? (Y/	/N): _ N Canopy (% open):	659	%			
Were samples collecte	ed for water chemistry? (Y/N): N	_ (Note lal	o sample no. or id. a	and attach results) Lab Nun	nber:	
	mp (°C) Dissolved Oxygen (n	mg/l)	pH (S.U.)	Conductivity (µmho	os/cm)	
Is the sampling reach r	representative of the stream (Y/N)	If not,	please explain:			
Additional comments/d	lescription of pollution impacts:					
BIOTIC EV	ALLIATION					
N						
Performed? (Y/N): _	(If Yes, Record all observations ID number. Include appropriate		•	· · · · · · · · · · · · · · · · · · ·		
Fish Observed? (Y/N)	N Voucher? (Y/N) N Salam	aandara C	bserved? (Y/N) N	Vaushar (V/N) N		
Frogs or Tadpoles Obs	served? (Y/N) Voucher? (Y/N)	Aqua	tic Macroinvertebrat	Voucher? (Y/N)	Voucher? (`	Y/N)
Comments Regarding	"			IN IN		
						
DRAWI	NG AND NARRATIVE DESCR	IPTION	OF STREAM R	REACH (This must be	comple	ted):
Include importa	nt landmarks and other features of ir	nterest fo	r site evaluation an	d a narrative description o	of the strea	m's location
_	-					
•	See Stream Assessmen					
1 2011	S5-S289c for site to					
ā	aerial photograph, a	and r	esource pr	locographs		





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NW
Range: R1W

Watershed: 05120201180

Channelized/Type: Yes/Dump Rock Gutter

Stream Type: Ephemeral Evaluation Type: HHEI Evaluation Score: 27

Evaluation Score: 27 Legal Drain (Y/N): N

UTME: 1778715 ft **UTMN:** 14285683 ft

USGS Quadrangle: Modesto

Section: 3
Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 2.6 feet
OHWM Depth: 0.3 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.05 sq n

Watershed Area: 0.05 sq mi Predominant Sub: Artificial

Stream S5-S289e – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	400	0.02	0.00
5	400	0.02	0.00
6	400	0.02	0.00
7	400	0.02	0.00
8	400	0.02	0.00
RPA 8	400	0.02	0.00

Description of Potential Impact:

Impacts to S5-S289e for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a dump rock gutter. There is no riparian buffer associated with this disturbed channel. The adjacent floodplain consists of transportation along both banks of this stream. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289e are on the second page of this form.



Photograph Taken Upstream



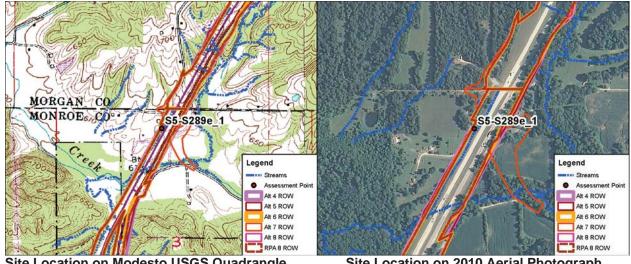
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S289e RIVER BASIN White River DRAINAGE AREA (mi²)	0.05
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33696 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51086) (Dump Rock Gutter-Modified	l Class I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	⊥ HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ BLDR SLABS [16 pts]	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts]	Max = 40
☐ GRAVEL (2 64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 100%	7
Table (Barrella (A)	
Bldr Slabs, Boulder, Cobble, Bedrock Check Check Check	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
 > 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 9	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful
	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Max=30
	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 2.6'/0.3' AVERAGE BANKFULL WIDTH (meters):	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters): ΔNOTE: River Left (L) and Right (R) as looking downstream Δ	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.80 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY COMMENTS AVERAGE BANKFULL WIDTH (meters): 0.80	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY BY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH Cer Bank) L R (Most Predominant per Bank) Wide >10m Mature Forest, Wetland Conservation Tillage	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.80 L R (Nost Predominant per Bank) L R (Most Predominant per Bank) Moderate 5 10m Moderate 5 10m Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 0.80 Usban or Industrial	Max=30
COMMENTS OHW 2.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Narrow <5m Residential, Park, New Field Park (Mining or Construction) AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters): 0.80 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Completed Narrow <5m Residential, Park, New Field Mining or Construction	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5 10m Narrow <5m AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters): AVERAGE BANKFULL WIDTH (meters): 0.80 L R (Nost Predominant per Bank) L R (Most Predominant per Bank) I Mature Forest, Wetland I Conservation Tillage Open Pasture, Row Conservation, Row Conservation, Park, New Field Open Pasture, Row Conservation, Park, New Field Open Pasture, Row Conservation, Park, New Field	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS AVERAGE BANKFULL WIDTH (meters): 0.80 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Predominant per Bank) I Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Open Pasture, Row Completed Narrow <5m Residential, Park, New Field Open Pasture, Row Completed None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Note > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide > 10 m Mature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Residential, Park, New Field Open Pasture, Row Completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Open Pasture, Row Completed RIPARIAN WIDTH (meters): Onservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Completed Narrow < 5 m Residential, Park, New Field Open Pasture, Row Completed Narrow < 5 m Residential, Park, New Field Open Pasture, Row Completed None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitted Dry channel, no water (Ephemeral)	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field Residential, Park, New Field Fenced Pasture COMMENTS AVERAGE BANKFULL WIDTH (meters): 0.80 AVERAGE BANKFULL WIDTH (meters): 0.	Max=30
COMMENTS OHW 2.6'/0.3' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m None Residential, Park, New Field Penced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Residential, Park, New Field Narrow <5m None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Narrow Moderate Mode	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ARIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R Conservation Tillage Immature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old V Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED?
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Monroe Township / City: Washington
MISCELLANEOUS
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 04/24/12 Quantity:_ 0.15
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 100%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the
ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N)
Fish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Vouc
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
See Stream Assessment Form S5-S289e for site topographic map,
aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck Quarter: NW Range: R1W

Watershed: 05120201180 Channelized/Type: Yes/Concrete Gutter **Stream Type:** Ephemeral

Evaluation Type: HHEI **Evaluation Score:** 27

Legal Drain (Y/N): Ν **UTME:** 1778817 ft **UTMN:** 14285919 ft **USGS** Quadrangle: Modesto

Section: 3 Township: T10N IDEM 303(d) List: N/A OHWM Width: 2.0 feet OHWM Depth: 0.4 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes Watershed Area:

0.05 sq mi **Predominant Sub:** Artificial

Stream S5-S289e_1 - Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	86	0.01	0.01
5	85	0.01	0.01
6	85	0.01	0.01
7	85	0.01	0.01
8	85	0.01	0.01
RPA 8	85	0.01	0.01

Description of Potential Impact:

Impacts to S5-S289e_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located in between North Turkey Track Road and SR 37. There is no riparian buffer associated with this artificial channel. The floodplain consists of INDOT ROW on the left bank and North Turkey Track Road on the right. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289e 1 are on the second page of this form.



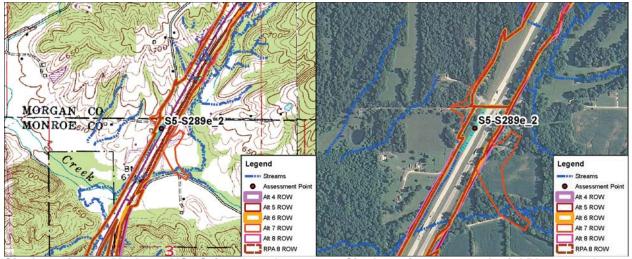
Photograph Taken Upstream





SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S289e_1 RIVER BASIN White River DRAINAGE AREA (mi²) 0.	05
LENGTH OF STREAM REACH (ft) 98 LAT. 39.33761 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51050) (Concrete Gutter-Modified Class	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] COBBLE (65 256 mm) [12 pts] GRAVEL (2 64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	HHEI Metric Points Substrate Max = 40 7 A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Depth
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 30
> 30 centimeters [20 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 10	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW 2.0'/0.4' AVERAGE BANKFULL WIDTH (meters): 0.60	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	
L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Mature Forest, Wetland Conservation Tillage	
Moderate 5 10m Immature Forest, Shrub or Old	
Narrow <5m Residential, Park, New Field Open Pasture, Row Cro	р
✓ None ☐ Fenced Pasture ☐ Mining or Construction	
COMMENTS	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS The control of Evaluation (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): None 1.0 2.0 3.0 >3.0 >3.0 >3.0	
STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	0 ft)





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NW
Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Type: Epnemeral HHEI Evaluation Score: 12

Legal Drain (Y/N): N

UTME: 1778963 ft **UTMN:** 14286108 ft

USGS Quadrangle:	Modesto
Section:	3
Townshin:	T10N

Township: T10N
IDEM 303(d) List: N/A
OHWM Width: 1.2 feet
OHWM Depth: 0.2 feet
USCOE Jurisdiction: No
IDEM Jurisdiction: No

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S289e_2 – Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	554	0.02	0.00
5	554	0.02	0.00
6	554	0.02	0.00
7	554	0.02	0.00
8	554	0.02	0.00
RPA 8	554	0.02	0.00

Description of Potential Impact:

Impacts to S5-S289e_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with either bank of this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289e_2 are on the second page of this form.



Photograph Taken Upstream

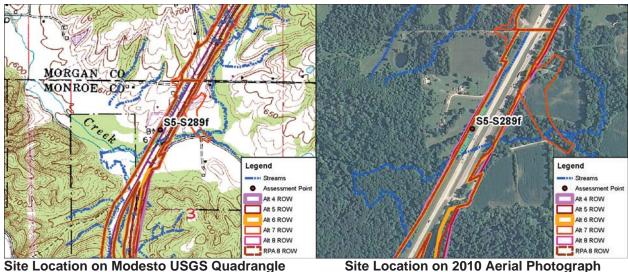


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S289e_2 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33813 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.50998) (Concrete Gutter-Modified C	lass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Point
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] D'' LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0%	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts]	7
SAND (<2 mm) [6 pts] 0% ARTIFICIAL [3 pts] 100%	L
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.37 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH L R (Per Bank) Wide >10 Mature Forest, Wetland Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field Narrow <5m Residential, Park, New Field COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitter) Moist Channel, isolated pools, no flow (Intermitter)	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN Wide > 10 m Mature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) To m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 COMMENTS 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Open Pasture, Row Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 COMMENTS 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	Width Max=30





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **USGS** Quadrangle: Modesto

Stream Name: Unnamed Trib. Bryant Ck Section: 3 Quarter: NW Township: T10N Range: R1W IDEM 303(d) List: N/A

Watershed: 05120201180 OHWM Width: 5.2 feet Channelized/Type: Yes/Roadside Ditch **OHWM Depth:** 0.5 feet **USCOE Jurisdiction: Stream Type:** Ephemeral Yes **Evaluation Type:** HHEI **IDEM Jurisdiction:** Yes

Evaluation Score: 48 Watershed Area: 0.05 sq mi Sand/gravel Legal Drain (Y/N): Ν **Predominant Sub:**

UTME: 1778484 ft **UTMN:** 14285301 ft

Stream S5-S289f – Modified Class II PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	565	0.06	0.07
5	565	0.06	0.07
6	565	0.06	0.01
7	565	0.06	0.01
8	565	0.06	0.01
RPA 8	565	0.06	0.01

Description of Potential Impact:

Impacts to S5-S289f for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of sand, gravel, and silt. There is no riparian buffer associated with this roadside ditch. The adjacent floodplain consists of transportation along the left bank and new field along the right. This ditch flows directly into Bryant Creek. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S289f are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



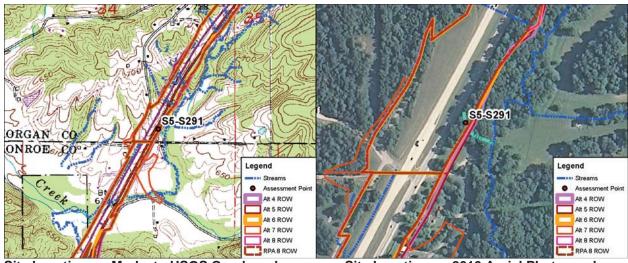
SITE NAME/LOCATION I-69 Section 5	
SITE NAME/LOCATION 1 00 decition 0 SITE NUMBER S5-S289f RIVER BASIN White River DRAINAGE AREA (mi²)	0.05
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33592 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.51169) (Roadside Ditch-Modified Cl	ass II)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHE
BLDR SLABS [16 pts] 0% SILT [3 pt] 20%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] LEAF PACK/WOODY DEBRIS [3 pts] 0% FINE DETRITUS [3 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 0%	Max = 4
☐ ☐ GRAVEL (2 64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	18
Total of Percentages of One (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock	^+6
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
 > 22.5 30 cm [30 pts] > 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 	15
COMMENTS MAXIMUM POOL DEPTH (centimeters): 10	
DANK FILL MIDTH (Managed as the suppose of 0.4 managed as the control of 1.5 miles and	Double
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.9'/0.5' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.9'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.9'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) AVERAGE BANKFULL WIDTH (meters): 1.49 AVERAGE BANKFULL WIDTH (meters): L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.9'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.9'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream* RIPARIAN WIDTH L R (Per Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field Open Pasture, Row Completed Residential, Park, New Field Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitte	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 4.9'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY **NOTE: River Left (L) and Right (R) as looking downstream ** RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Moderate 5 10 m Narrow <5 m Narrow <5 m Residential, Park, New Field None COMMENTS Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Most Channel, isolated pools, no flow (Intermitte Dry channel, no water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8") [20 pts] COMMENTS OHW = 4.9'/0.5' This information must also be completed RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY NoTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Mide > 10m Mature Forest, Wetland Moderate 5 10m Narrow < 5m Narrow < 5m Residential, Park, New Field Open Pasture, Row of None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 14' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7' - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7' - 4' 8") [20 pts] COMMENTS OHW = 4.9'/0.5' This information must also be completed RIPARIAN WIDTH RIPARIAN WIDTH FLOODPLAIN QUALITY NoTE: River Left (L) and Right (R) as looking downstream: RIPARIAN WIDTH FLOODPLAIN QUALITY Mide > 10m Mature Forest, Wetland Moderate 5 10m Narrow < 5m Narrow < 5m Residential, Park, New Field Open Pasture, Row of None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0	Width Max=30

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):	S5-S	289f
QHEI PERFORMED? Yes V No QHEI Score (If Yes, Att	ach Completed QHEI Form)	
DOWNSTREAM DESIGNATED USE(S)	as. 30p. 30. Q. <u>2</u> 3,	
WWH Name: Bryant Creek	Distance from Evaluated Stream 0.21	
CWH Name:	_ Distance from Evaluated Stream _	
EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHE	D AREA. CLEARLY MARK THE SITE LOCATION	
USGS Quadrangle Name: Modesto NRCS Soil Map	Page: NRCS Soil Map Stream Order	
County: Monroe Township / City: Wash	ington	
MISCELLANEOUS		
Base Flow Conditions? (Y/N):_Y Date of last precipitation:_ 04/24/12	Quantity: 0.15	_
Photograph Information:		
Elevated Turbidity? (Y/N): N Canopy (% open): 100%		
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id.	and attach results) Lab Number:	
	Conductivity (µmhos/cm)	
Is the sampling reach representative of the stream (Y/N) If not, please explain:		
Additional comments/description of pollution impacts:		
BIOTIC EVALUATION		
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections options	al NOTE: all voucher samples must be labeled with	the site
ID number. Include appropriate field data sheets from the P	•	the site
Fish Observed? (Y/N) N Voucher? (Y/N) Salamanders Observed? (Y/N) N Voucher? (Y/N) Aquatic Macroinvertebra	Voucher? (Y/N) N ates Observed? (Y/N) Voucher? (Y/N)	
Comments Regarding Biology:	N	
DRAWING AND NARRATIVE DECORIDATION OF CIREAM	DEACH (This word has some lated)	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM Include important landmarks and other features of interest for site evaluation a		ion
	na a namansa assampnish ar ana ansam a nasa	
See Stream Assessment Form		



See Stream Assessment Form S5-S289f for site topographic map, aerial photograph, and resource photographs





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural **Stream Type:** Ephemeral **Evaluation Type:** HHEI

Evaluation Score: 18 Legal Drain (Y/N): Ν

UTME: 1779447 ft **UTMN:** 14286593 ft

USGS Quadrangle:	Modesto
Section:	34
Township:	T11N
IDEM 303(d) List:	N/A
OHWM Width:	2.5 feet
OHWM Depth:	0.1 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m
	<u> </u>

Predominant Sub: Clay/gravel

Stream S5-S291 – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	103	0.01	0.39
5	106	0.01	0.39
6	81	0.01	0.32
7	83	0.01	0.31
8	82	0.01	0.31
RPA 8	82	0.01	0.31

Description of Potential Impact:

Impacts to S5-S291 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The substrate consists of clay, gravel, and sand. There is a wide riparian corridor on the left bank and a moderatelywide riparian zone on the left bank where these Alternatives cross this stream. The floodplain consists primarily of immature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S291 are on the second page of this form.



Photograph Taken Upstream



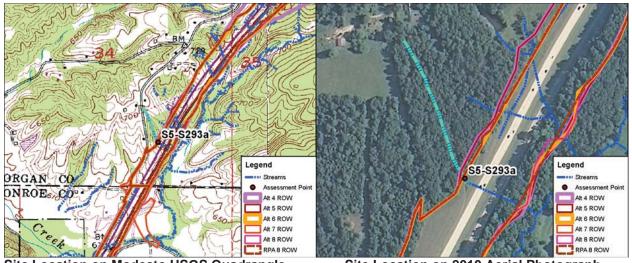
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S291 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.33945 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.50826) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
BLDR SLABS [16 pts] 0% SILT [3 pt] 10%	Points
BOULDER (>256 mm) [16 pts]	Substrat
☐ ☐ COBBLE (65 256 mm) [12 pts] ☐ ☐ ☐ CLAY or HARDPAN [0 pt] 60%	Max = 4
GRAVEL (2 64 mm) [9 pts]	13
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width Max=30
	Width
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.5'/1' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.5'/1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.5'/1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.5'/1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River (R) and River (Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.5'/1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): O.76 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) V Wide >10m Mature Forest, Wetland Moderate 5 10m V Woderate 5 10m V V Woderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.5'/1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) Wide >10 m Mature Forest, Wetland Moderate 5 10m None Pasture Pow Conservation Tillage Immature Forest, Shrub or Old Field One Pasture Pow Conservation Pow Conservation Pow Conservation Field	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.5'/1¹ AVERAGE BANKFULL WIDTH (meters): 0.76 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream Nature Forest, Wetland RIPARIAN WIDTH FLOODPLAIN QUALITY Wide > 10 m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial Field Open Pasture, Row C Open Pasture, Row C Open Pasture, Row C Open Residential, Park, New Field Open Pasture, Row C Open Pasture, Row C Open Pasture Open Pasture, Row C Open Pasture, Row C	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.5'/1' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Mature Forest, Wetland Wide >10 m Mature Forest, Wetland Moderate 5 10 m Moderate 5 10 m Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) No water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 14' 8") [20 pts] AVERAGE BANKFULL WIDTH (meters): 0.76 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ↑ NOTE: River Left (L) and Right (R) as looking downstream ↑ NOTE: River Left (L) and Right (R) as	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30 5

ADDITIONAL STR	EAM INFORMATION (This Information M	lust Also be Completed):		-S291
QHEI PE	RFORMED? Yes No QHEI Sco	ore (If Yes, At	tach Completed QHEI Form)	
	TREAM DESIGNATED USE(S)			
WWH Name:	Bryant Creek		Distance from Evaluated Stream	
CWH Name: _			Distance from Evaluated Stream	
EWH Name:			Distance from Evaluated Stream	
		G THE <u>ENTIRE</u> WATERSHE	ED AREA. CLEARLY MARK THE SITE LOCATIO	N
USGS Quadrangle	Name:_Modesto	NRCS Soil Map		
County: Morgan		Township / City: Bake	r	
MISCELI	LANEOUS		-	
Base Flow Condition	ons? (Y/N):_Y Date of last precipitat	tion: 10/13/11	Quantity: 0.25	
Photograph Informa	ation:			
Elevated Turbidity?	(Y/N): _ N	15%		
Were samples colle	ected for water chemistry? (Y/N): N	(Note lab sample no. or id	and attach results) Lab Number:	
Field Measures:	Temp (°C) Dissolved Oxygen (m		Conductivity (µmhos/cm)	
Is the sampling rea	ch representative of the stream (Y/N)	If not, please explain:		
Additional commen	nts/description of pollution impacts:			
BIOTIC	EVALUATION			
Performed? (Y/N):	N (If Yes, Record all observations	Voucher collections option	al. NOTE: all voucher samples must be labeled wi	ith the site
		·	rimary Headwater Habitat Assessment Manual)	
Fish Observed? (Y	/N) N Voucher? (Y/N) N Salama	anders Observed? (Y/N)	Voucher? (Y/N) N	
Comments Regard	Observed? (Y/N) N Voucher? (Y/N) N ina Biology:	Aquatic Macroinvertebr	ates Observed? (Y/N) N Voucher? (Y/N)	
- Transfer to gain				
DRA	WING AND NARRATIVE DESCRI	IPTION OF STREAM	REACH (This must be completed):	
			and a narrative description of the stream's loca	ation
	See Stream Assessmer	nt Form		
FLOW -	S5-S291 for site top			
. LO W	aerial photograph,			
	F 7 1			





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Stream Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W Watershed: 05120201180

Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 31 Legal Drain (Y/N): N

UTME: 1779504 ft **UTMN**: 14287237 ft

USGS Quadrangle:	Modesto
Section:	34
Township:	T11N
IDEM 303(d) List:	N/A
OHWM Width:	4.5 feet
OHWM Depth:	0.8 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Watershed Area: 0.01 sq mi
Predominant Sub: Clay/sand

Stream S5-S293a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	70	0.01	0.15
5	65	0.01	0.13
6	38	0.01	0.05
7	38	0.01	0.05
8	38	0.01	0.05
RPA 8	38	0.01	0.05

Description of Potential Impact:

Impacts to S5-S293a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S293a are on the second page of this form.



Photograph Taken Upstream



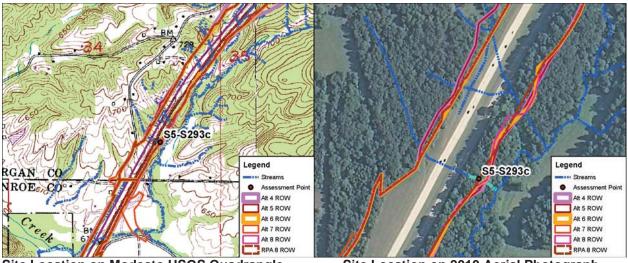
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S293a RIVER BASIN White River DRAINAGE AREA (mi²) 0	.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.34122 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.50805) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0%	Points
BEDROCK [16 pt]	Substrat
COBBLE (65 256 mm) [12 pts] 5% CLAY or HARDPAN [0 pt]	Max = 4
☐ GRAVEL (2 64 mm) [9 pts] ☐ MUCK [0 pts] ☐ 0% ☐ ARTIFICIAL [3 pts] ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0% ☐ 0	11
Total of Percentages of 5 00% (A) Substrate Percentage (B)	A + B
Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 5	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	
COMMENTS OHW = 4.5'/0.8' AVERAGE BANKFULL WIDTH (meters): 1.37	A =
	15
This information must also be assumbled.	15
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	15
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆ NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN WIDTH FLOODPLAIN QUALITY	15
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R Wide >10m Auture Forest, Wetland Conservation Tillage	15
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m L R (Most Predominant per Bank) I Moderate 5 10m Immature Forest, Wetland Urban or Industrial	15
RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Conservation Field	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) Moderate 5 10m RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Most Predominant per Bank) Most Predominant per Bank) L R Conservation Tillage Immature Forest, Shrub or Old Field Conservation Tillage Field Conservation Tillage	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) Wide >10m Moderate 5 10m Narrow <5m RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Conservation Tillage Immature Forest, Shrub or Old Field Open Pasture, Row Creen	
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Viv Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):	op
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) V Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Most Predominant per Bank) L R (Most Pred	op
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as looking down	op
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A work and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (Mixer Left (L)	op
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A work and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (R) as looking downstream A mixer Left (L) and Right (Mixer Left (L)	op
RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) SINUOSITY (Number of bends per 61 m (200 ft) of channel) SINUOSITY (Number of bends per 61 m (200 ft) of channel) RIPARIAN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as looking downstre	op -

QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI Form) DOWNSTREAM DESIGNATED USE(S) WHY Name: Bryant Creek CWH Name: Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream NAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order County: Morgan Township / City: Baker MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/11 Quantity: 0.25 Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 0% Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:	INFORMATION (This Information Must Also be Completed):
WWH Name: Bryant Creek Distance from Evaluated Stream Distance	RMED? Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
USGS Quadrangle Name: Modesto NRCS Soil Map Page: NRCS Soil Map Stream Order Township / City: Baker MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/11 Quantity: 0.25 Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 0%	t Creek Distance from Evaluated Stream Distance from Evaluated Stream
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/11 Quantity: 0.25 Photograph Information: Elevated Turbidity? (Y/N): N Canopy (% open): 0%	TACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
MISCELLANEOUS Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/11 Quantity: 0.25 Photograph Information:	NRCS Soil Map Page: NRCS Soil Map Stream Order
Base Flow Conditions? (Y/N): Y Date of last precipitation: 10/13/11 Quantity: 0.25 Photograph Information: N Canopy (% open): 0%	Township / City:Baker
Elevated Turbidity? (Y/N): Canopy (% open):	Y/N):_Y Date of last precipitation:10/13/11 Quantity:0.25
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:):N Canopy (% open): 0%
	for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)	p (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain: Additional comments/description of pollution impacts:	
BIOTIC EVALUATION Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the since the primary Headwater Habitat Assessment Manual) Fish Observed? (Y/N) N Voucher? (Y	(If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Voucher
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed): Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location See Stream Assessment Form S5-S293a for site topographic map, aerial photograph, and resource photographs	landmarks and other features of interest for site evaluation and a narrative description of the stream's location ee Stream Assessment Form 5-S293a for site topographic map,





Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream **Stream Name:** Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W

Watershed: 05120201180 Channelized/Type: No/Natural Ephemeral **Stream Type: Evaluation Type:** HHEI **Evaluation Score:** 60

Legal Drain (Y/N): UTME: 1779783 ft **UTMN:** 14287107 ft

Ν

USGS Quadrangle: Modesto Section: 34 Township: T11N IDEM 303(d) List: N/A OHWM Width: 3.2 feet OHWM Depth: 1.2 feet **USCOE Jurisdiction:** Yes **IDEM Jurisdiction:** Yes 0.01 sq mi Watershed Area:

Predominant Sub: Gravel/sand

Stream S5-S293c – Class III PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	89	0.01	0.29
5	81	0.01	0.29
6	80	0.01	0.28
7	82	0.01	0.28
8	82	0.01	0.28
RPA 8	55	0.01	0.25

Description of Potential Impact:

Impacts to S5-S293c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of gravel and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S293c are on the second page of this form.



Photograph Taken Upstream

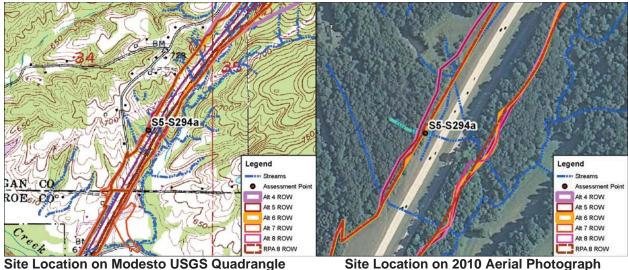




	THIEF COOLS (sum of metrics 1, 2, 3):	
SITE NAME/LOCATION I-69 Section 5		
	S5-S293C RIVER BASIN White River DRAINAGE AREA (mi²) 0.	.01
LENGTH OF STREAM REACH (ft) 150	LAT. 39.34086 LONG. RIVER CODE RIVER MILE	
DATE 05/10/06 SCORER DEW/KS		
NOTE: Complete All Items On This Forn	m - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL NONE / NAT MODIFICATIONS:	TURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING RECOVERING RECENT OR NO RECOVERING RECOVERING RECENT OR NO RECOVERING RECOVERING RECENT OR NO RECOVERING RECENT OR NO RECOVERING REC	OVERY
SUBSTRATE (Estimate percent of eve	ery type of substrate present. Check ONLY two predominant substrate TYPE boxes	
	cant substrate types found (Max of 8). Final metric score is sum of boxes A & B.	HHE
	ERCENT TYPE PERCENT	Metri Point
BLDR SLABS [16 pts]	0% SILT [3 pt] 10%	Folin
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt]	0% LEAF PACK/WOODY DEBRIS [3 pts] 5% 0%	Substra
COBBLE (65 256 mm) [12 pts]	5% CLAY or HARDPAN [0 pt] 0%	Max = 4
GRAVEL (2 64 mm) [9 pts]	41% MUCK [0 pts] 0%	
SAND (<2 mm) [6 pts]	39% ARTIFICIAL [3 pts] 0%	20
T. I. CD	Cubatrata Paragataga	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	5.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBS	STRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 5	
O Mayimum Bool Donth (Magazina the ma	naximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Dool Doo
	d culverts or storm water pipes) (Check ONLY one box):	Pool Dep Max = 3
> 30 centimeters [20 pts]	> 5 cm - 10 cm [15 pts]	
> 22.5 30 cm [30 pts]	< 5 cm [5 pts]	0.5
> 10 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0 pts]	25
COMMENTS	MAXIMUM POOL DEPTH (centimeters): 11	
	(0.1 - 0.1)	DI-6-
3. BANK FULL WIDTH (Measured as the > 4.0 meters (> 13') [30 pts]	e average of 3-4 measurements) (Check ONLY one box):	Bankfu Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	≤ 1.0 m (<=3' 3") [5 pts]	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		
COMMENTS OHW = 3.2'/1.2'	AVERAGE BANKFULL WIDTH (meters): 1.40	15
	70 2 10 02 37 10 10 10 10 10 10 10 10 10 10 10 10 10	
	This information months is	
RIPARIAN ZONE AND FLOODP	This information must also be completed PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆	
RIPARIAN WIDTH	FLOODPLAIN QUALITY	
L R (Per Bank)	L R (Most Predominant per Bank) L R	
Wide >10m	Mature Forest, Wetland Conservation Tillage	
Moderate 5 10m	Immature Forest, Shrub or Old Urban or Industrial	
Narrow <5m	Residential, Park, New Field Open Pasture, Row Cro	р
None Nanow 3iii	Fenced Pasture Mining or Construction	
COMMENTS	Fenced Pasture Mining or Construction	
		-
· ·	aluation) (Check ONLY one box):	
Stream Flowing Subsurface flow with isolated poo	Moist Channel, isolated pools, no flow (Intermittent) Dry channel, no water (Ephemeral))
COMMENTS_		_
CINILOCATE (Al contract)	CA to (200 ft) of about all (Charle ON) Very by	
SINUOSITY (Number of bends p	per 61 m (200 ft) of channel) (Check <i>ONLY</i> one box): 1.0	
0.5	1.5 2.5 3	
OTDEAN 00 10 10 10 10 10 10 10 10 10 10 10 10		
STREAM GRADIENT ESTIMATE		
Flat (0.5 ft/100 ft)	Moderate (2 ft/100 ft) Moderate to Severe	00 ft)
Flat (0.5 ft/100 ft)	Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/10	00 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Als	o be Completed):
QHEI PERFORMED? Yes V No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE E	NTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name:_Modesto	NRCS Soil Map Page: 59 NRCS Soil Map Stream Order 1
County: Morgan Town	ship / City:Baker
MISCELLANEOUS	
Base Flow Conditions? (Y/N):_Y Date of last precipitation:	05/10/06 Quantity: 0.89
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 50	%
Were samples collected for water chemistry? (Y/N): (Note la	ab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (μmhos/cm)
Is the sampling reach representative of the stream (Y/N) If no	t, please explain:
Additional comments/description of pollution impacts:	
BIOTIC EVALUATION	
,	er collections optional. NOTE: all voucher samples must be labeled with the site ta sheets from the Primary Headwater Habitat Assessment Manual)
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aqu	Observed? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N Voucher? (Y/N) N
Comments Regarding Biology:	
	OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for	or site evaluation and a narrative description of the stream's location
See Stream Assessment	
S5-S293c for site topo	
aerial photograph, and	resource photographs

Reset Form



Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream Stream Name: Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W 05120201180 Watershed:

Channelized/Type: No/Natural **Stream Type:** Ephemeral **Evaluation Type:** HHEI

Evaluation Score: 14 Legal Drain (Y/N): Ν

UTME: 1779704 ft **UTMN:** 14287584 ft

USGS Quadrangle:	Modesto
Section:	34
Township:	T11N
IDEM 303(d) List:	N/A
OHWM Width:	2.1 feet
OHWM Depth:	0.4 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Predominant Sub: Clay/sand

Stream S5-S294a – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	66	0.01	0.17		
5	63	0.01	0.17		
6	41	0.01	0.07		
7	42	0.01	0.07		
8	43	0.01	0.07		
RPA 8	43	0.01	0.07		

Description of Potential Impact:

Impacts to S5-S294a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and sand. There is a wide riparian corridor associated with this stream along both banks of this stream. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream where these Alternatives cross S5-S294a are on the second page of this form.



Photograph Taken Upstream



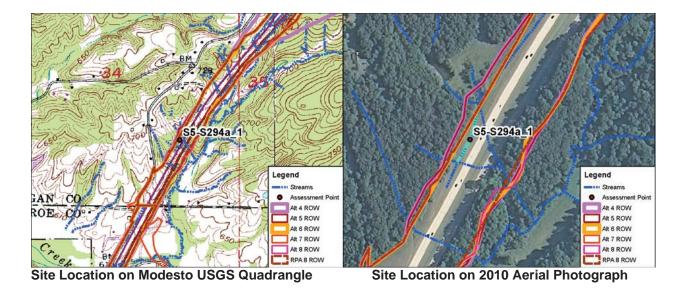
Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S294a RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.34217 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.50733) (Natural-Modified Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI
BLDR SLABS [16 pts] 0% SILT [3 pt] 10%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] D LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0%	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 75%	Max = 40
GRAVEL (2 64 mm) [9 pts] 0% MUCK [0 pts] 0%	9
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
→ NO WATER OR MOIST CHANNEL [0 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 0.64 **NOTE: River Left (L) and Right (R) as looking downstream **	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) S 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.64 **NOTE: River Left (L) and Right (R) as looking downstream **x RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide >10m Mature Forest, Wetland Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide >10m Moderate 5 10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' AVERAGE BANKFULL WIDTH (meters):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 0.64 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And the substream And th	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10 m V Mature Forest, Wetland Moderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Wide >10 m Wide >10 m Wide >10 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): COMMENTS 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2 m - 1.0 m (<=3' 3") [5 pts] 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 2 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] 3 m - 1.0 m (<=3' 3") [5 pts] 3 m - 1.0 m (<=3' 3") [5 pts] 4 m (= 3' 3") [5 pts] 5 m (= 3' 3") [5 pts] 6 m (= 3' 3") [5 pts] 7 m (= 3' 3") [5 pts] 7 m (= 3' 3") [5 pts] 7 m (= 3' 3") [5 pts] 8 m (= 3' 3") [5 pts] 8 m (= 3' 3") [5 pts] 9 m	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 2.1'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10 m V Mature Forest, Wetland Moderate 5 10m	Width Max=30 5

ADDITIONAL STREAM INFORMATION (This Information Must Also	b be Completed):
QHEI PERFORMED? Yes No QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Bryant Creek CWH Name: EWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE EI	NTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Modesto	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Morgan Towns	ship / City:Baker
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	b sample no. or id. and attach results) Lab Number: pH (S.U.) Conductivity (μmhos/cm) please explain:
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders C Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aqua Comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION	er collections optional. NOTE: all voucher samples must be labeled with the site a sheets from the Primary Headwater Habitat Assessment Manual) Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) OF STREAM REACH (This must be completed):
See Stream Assessment S5-S294a for site topogaerial photograph, and	graphic map,

Reset Form



Aquatic Resource: Stream

HHEI

Stream Name: Unnamed Trib. Bryant Ck
Quarter: SE
Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral

Evaluation Score: 12 Legal Drain (Y/N): N

Evaluation Type:

UTME: 1779801 ft **UTMN**: 14287693 ft

USGS Quadrangle: Modesto Section: 34 Township: T11N IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet **USCOE** Jurisdiction: No **IDEM Jurisdiction:** No

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S294a_1 – Modified Class I PHWH					
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)		
4	304	0.01	0.05		
5	304	0.01	0.05		
6	282	0.01	0.00		
7	282	0.01	0.00		
8	282	0.01	0.00		
RPA 8	282	0.01	0.00		

Description of Potential Impact:

Impacts to S5-S294a_1 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S294a_1 are on the second page of this form.



Photograph Taken Upstream

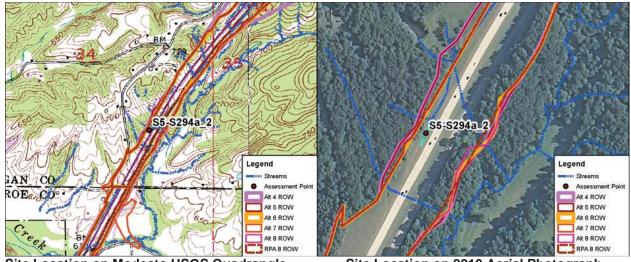


Photograph Taken Downstream



SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S294a_1 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.34247 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.50699) (Concrete Gutter-Modified Cla	ss I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING.	OVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
BLDR SLABS [16 pts] 0% SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrate
☐ ☐ COBBLE (65 256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ 0 %	Max = 40
GRAVEL (2 64 mm) [9 pts]	7
Orato (semin) [opto]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	
→ > 22.5 30 cm [30 pts] < 5 cm [5 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] ✓ ≤ 1.0 m (<=3' 3") [5 pts]	Max=30
OLIW 4 21/0 21	5
COMMENTS OHW 1.270.2 AVERAGE BANKFULL WIDTH (meters): 0.36	'
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH LR (Per Bank) LR (Most Predominant per Bank) LR	
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Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream
Stream Name: Unnamed Trib. Bryant Ck

Quarter: SE Range: R1W

Watershed: 05120201180
Channelized/Type: Yes/Concrete Gutter
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Score: 12 Legal Drain (Y/N): N

UTME: 1779706 ft **UTMN**: 14287507 ft

USGS Quadrangle: Modesto Section: 34 Township: T11N IDEM 303(d) List: N/A OHWM Width: 1.2 feet OHWM Depth: 0.2 feet **USCOE** Jurisdiction: No **IDEM Jurisdiction:** No

Watershed Area: 0.01 sq mi Predominant Sub: Artificial

Stream S5-S294a_2 - Modified Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	146	0.01	0.12
5	146	0.01	0.12
6	146	0.01	0.06
7	146	0.01	0.08
8	146	0.01	0.08
RPA	146	0.01	0.08

Description of Potential Impact:

Impacts to S5-S294a_2 for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The channel consists of a concrete gutter located within existing INDOT ROW. There is no riparian buffer associated with this artificial channel. The floodplain consists of maintained INDOT ROW. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S294a_2 are on the second page of this form.



Photograph Taken Upstream



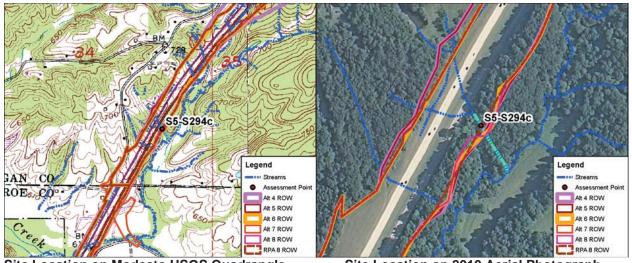
Photograph Taken Downstream



ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5 SITE NUMBER S5-S294a_2 RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 146 LAT. 39.34196 LONG. RIVER CODE RIVER MILE	
DATE 04/26/12 SCORER KSS/DEW COMMENTS (Long: -86.50732) (Concrete Gutter-Modified Cl	ass I)
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metric
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] 0% LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0% 0%	Substrat
☐ ☐ COBBLE (65 256 mm) [12 pts] ☐ ☐ CLAY or HARDPAN [0 pt] ☐ ☐ 0%	Max = 40
GRAVEL (2 64 mm) [9 pts] O% MUCK [0 pts] O% ARTIFICIAL [3 pts] 100%	7
GANAS (12 mm) [6 pto]	
Total of Percentages of 0.00% (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 1	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 30
> 22.5 30 cm [30 pts]	
	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONL Y one box): > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful
2 4.0 meters (> 13°) [30 pts] 2 1.0 m - 1.5 m (> 3° 3° - 4° 8°) [15 pts]	Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36	Max=30
> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Max=30
COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH FLOODPLAIN QUALITY	Max=30
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This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Most Predominant per Bank) Wide >10m Moderate 5 10m Residential, Park, New Field AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed NOTE: River Left (L) and Right (R) as looking downstream in the completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) Moderate 5 10m Residential, Park, New Field Open Pasture, Row Completed This information must also be completed RIPARIAN WIDTH (meters): Under Side Completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Under Side Completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information must also be completed RIPARIAN WIDTH (meters): Occurrence This information mus	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Wide >10m	Max=30
COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH Cere Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND Flow (Intermittent) RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as looking downs	Max=30
COMMENTS OHW 1.2'/0.2' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH Cere Bank) Wide >10m Mature Forest, Wetland Moderate 5 10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field Fenced Pasture COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moderate 5 10m AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND Flow (Intermittent) RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream And Right (R) as looking downs	Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Note > 1.5 m Residential, Park, New Field Rayrow <5 m Narrow <5 m Residential, Park, New Field FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) AVERAGE BANKFULL WIDTH (meters): 0.36 AVERAGE BANKFULL WIDTH (meters): 0.37 AVERAGE BANKFULL WIDTH (meters): 0.38 AVERAGE BANKFULL WIDTH (Max=30
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream Mature Forest, Wetland Conservation Tillage Immature Forest, Wetland Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row Comments FLOW REGIME (At Time of Evaluation) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 (Check ONLY one box):	Max=30
COMMENTS OHW 1.2'/0.2' AVERAGE BANKFULL WIDTH (meters): 0.36 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ANOTE: River Left (L) and River Left (L) and Rive	Max=30
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Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: SE
Range: R1W

Range: R1W
Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI

Evaluation Secret

Evaluation Score: 29 Legal Drain (Y/N): N

UTME: 1779995 ft **UTMN**: 14287497 ft

USGS Quadrangle:	Modesto
Section:	34
Township:	T11N
IDEM 303(d) List:	N/A
OHWM Width:	5.0 feet
OHWM Depth:	0.5 feet
USCOE Jurisdiction:	Yes
IDEM Jurisdiction:	Yes
Watershed Area:	0.01 sq m

Watershed Area: 0.01 sq mi
Predominant Sub: Clay/sand

Stream S5-S294c – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	109	0.01	0.47
5	111	0.01	0.48
6	116	0.01	0.51
7	126	0.01	0.47
8	126	0.01	0.47
RPA 8	80	0.01	0.36

Description of Potential Impact:

Impacts of S5-S294c for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of clay and sand. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S294c are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream

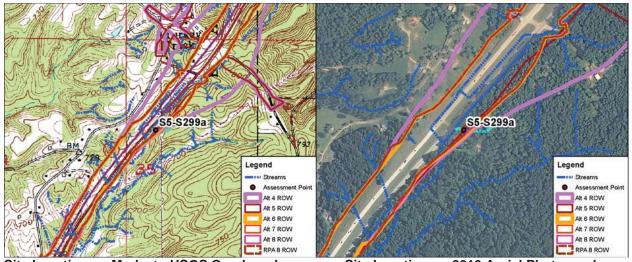


ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S294c RIVER BASIN White River DRAINAGE AREA (mi²)	0.01
LENGTH OF STREAM REACH (ft) 200 LAT. 39.34193 LONG. RIVER CODE RIVER MILE	
DATE 10/18/11 SCORER DEW/KSS COMMENTS (Long: -86.50630) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	HHEI
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 10%	Points
BOULDER (>256 mm) [16 pts] BEDROCK [16 pt] BEDROCK [16 pt] D LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% 0% 0%	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 75%	Max = 4
GRAVEL (2 64 mm) [9 pts]	9
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 3	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):	Max = 3
> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	0
COMMENTS MAXIMUM POOL DEPTH (centimeters): 0	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY PLOODPLAIN QUALITY L R (Per Bank) > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL WIDTH (meters): 1.52 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH L R (Per Bank) V Wide >10m Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) ✓ Wide >10m Moderate 5 10m Moderate 5 10m Noderate 5 10m	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5 10m Moderate 5 10m Residential, Park, New Field Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermitte	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Vide >1.0 m (<=3' 3") [5 pts] 1.52 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Ature Forest, Wetland Moderate 5 10 m Mature Forest, Wetland Moderate 5 10 m Mature Forest, Shrub or Old Mature Forest, Shrub or Old Narrow <5 m Residential, Park, New Field None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) No water (Ephemeral)	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10 m Ptoopplain Quality Moderate 5 10m Ptoopplain Quality Moderate 7 to 1.5 m Ptoopplain Quality	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 5'/0.5' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Wide >10 m Ptoopplain Quality Moderate 5 10m Ptoopplain Quality Moderate 7 to 1.5 m Ptoopplain Quality	Width Max=30 20 Crop nt)

ADDITIONAL STREAM I	NFORMATION (This Information M	Must Also be Compl	eted):		S5-S294
QHEI PERFOR	RMED? Yes V No QHEISC	ore (If Y	′es, Atta	ach Completed QHEI For	m)
DOWNSTREA	M DESIGNATED USE(S)				
WWH Name: Bryan	. ,			Distance from Evalua	ted Stream
CWH Name:				_ Distance from Evaluat	
EWH Name:				Distance from Evaluate	ed Stream _
MAPPING: AT	TACH COPIES OF MAPS, INCLUDIN	G THE ENTIRE WATE	ERSHED	AREA. CLEARLY MAR	K THE SITE LOCATION
USGS Quadrangle Name	Modesto	NRCS So	il Map P	Page: NRCS So	il Map Stream Order
County: Morgan		Township / City:_	Baker		
MISCELLANE	ous				
Base Flow Conditions? (Y/N):_Y Date of last precipita	10/13/1	1	Quantity: 0.25	<u> </u>
Photograph Information:					
Elevated Turbidity? (Y/N)	: _ N Canopy (% open):	0%			
Were samples collected	for water chemistry? (Y/N): N	(Note lab sample no	o. or id. a	and attach results) Lab N	umber:
	p (°C) Dissolved Oxygen (n			Conductivity (µm	
Is the sampling reach rep	presentative of the stream (Y/N)	If not, please exp	lain:		
Additional comments/des	scription of pollution impacts:				
BIOTIC EVAL	UATION				
Performed? (Y/N): _ N	(If Yes, Record all observations	s. Voucher collections	optional	I. NOTE: all voucher samp	oles must be labeled with the si
	ID number. Include appropriate			mary Headwater Habitat A	ssessment Manual)
Fish Observed? (Y/N) Frogs or Tadpoles Obser	Voucher? (Y/N) N Salam rved? (Y/N) N Voucher? (Y/N) N	nanders Observed? (\ Aquatic Macroinv	Y/N) N vertebrat	Voucher? (Y/N) N tes Observed? (Y/N)	Voucher? (Y/N)
Comments Regarding Bi	ology:				
DRAWING	G AND NARRATIVE DESCR	IPTION OF STRI	EAM R	REACH (This must	be completed):
	landmarks and other features of ir				
p				, , ,	
	See Stream Assessm	ent Form			
_			a	~	
1 LOW	S5-S294c for site			_	
	aerial photograph,	and resou	rce	photographs	





Site Location on Modesto USGS Quadrangle

Site Location on 2010 Aerial Photograph

Aquatic Resource: Stream

Stream Name: Unnamed Trib. Bryant Ck
Quarter: NW
Range: R1W

Watershed: 05120201180
Channelized/Type: No/Natural
Stream Type: Ephemeral
Evaluation Type: HHEI
Evaluation Score: 30

Legal Drain (Y/N): N **UTMN:** 14289711 ft

USGS Quadrangle: Modesto, Hindustan

Section: 35
Township: T11N
IDEM 303(d) List: N/A
OHWM Width: 3.4 feet
OHWM Depth: 0.4 feet
USCOE Jurisdiction: Yes
IDEM Jurisdiction: Yes
Watershed Area: 0.11 sq r

Watershed Area: 0.11 sq mi Predominant Sub: Sand/clay

Stream S5-S299a – Class I PHWH			
Alternatives	Length of Impact (feet)	Area of Impact (acres)	Riparian Impact (acres)
4	177	0.01	0.88
5	94	0.01	0.31
6	150	0.01	0.57
7	136	0.01	0.51
8	136	0.01	0.51
RPA 8	85	0.01	0.36

Description of Potential Impact:

Impacts to S5-S299a for Alternatives 4, 5, 6, 7, 8 and RPA 8 are listed in the table above. The predominant substrate consists of sand and clay. There is a wide riparian corridor associated with this stream along both banks. The adjacent floodplain consists of mature forest. Photographs taken upstream and downstream in the area where these Alternatives cross S5-S299a are on the second page of this form.



Photograph Taken Upstream



Photograph Taken Downstream



ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAME/LOCATION I-69 Section 5	
SITE NUMBER S5-S299a RIVER BASIN White River DRAINAGE AREA (mi²)	0.11
LENGTH OF STREAM REACH (ft) 200 LAT. 39.34798 LONG. RIVER CODE RIVER MILE	
DATE 04/25/12 SCORER KSS/DEW COMMENTS (Long: -86.50041) (Natural-Class I)	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Ins	tructions
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO REMODIFICATIONS:	COVERY
1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes	ı HHEI
(Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. TYPE PERCENT TYPE PERCENT	Metri
□ □ BLDR SLABS [16 pts] □ □ SILT [3 pt] 0%	Points
BOULDER (>256 mm) [16 pts]	Substrat
COBBLE (65 256 mm) [12 pts] 0% CLAY or HARDPAN [0 pt] 20%	Max = 4
GRAVEL (2 64 mm) [9 pts]	10
SAND (<2 mm) [6 pts]	
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) Substrate Percentage Check 100% (B)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of	Pool Dep
evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts]	Max = 3
> 22.5 30 cm [30 pts] < 5 cm [5 pts]	
> 10 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts]	5
COMMENTS MAXIMUM POOL DEPTH (centimeters): 4	
2 DANK FULL WIDTH (Macayand on the guarant of 2.4 managements) (Check ON View how).	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankful
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankful Width Max=30
	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] > 1.0 m (<=3' 3") [5 pts] ≤ 1.0 m (<=3' 3") [5 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.4'/0.4' AVERAGE BANKFULL WIDTH (meters): This information must also be completed	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.4'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.10 This information function must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ☆	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.4'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY AVERAGE BANKFULL WIDTH (meters): 1.10 This information pust also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY L R (Per Bank) L R (Most Predominant per Bank) L R	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.4'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ∴ NOTE: River Left (L) and Right (R) as looking downstream ∴ RIPARIAN WIDTH L R (Per Bank) ↓ Wide >10m L R (Most Predominant per Bank) ↓ Wide >10m L R (Conservation Tillage	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.4'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY RIPARIAN WIDTH L R (Per Bank) L R (Most Predominant per Bank) V Wide > 10m Moderate 5 10m NOTE: River Left (L) and Right (R) as looking downstream of Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Urban or Industrial	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (<=3' 3") [5 pts] ≤ 1.0	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.4'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH L R (Per Bank) Vide >10 m (<=3' 3") [5 pts] 1.10 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY Mature Forest, Wetland Moderate 5 10m Narrow <5m Narrow <5m Residential, Park, New Field None COMMENTS Mining or Construction	Width Max=30
> 4.0 meters (> 13') [30 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.4'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH FLOODPLAIN QUALITY Wide >10 m Moderate 5 10 m Narrow <5 m None None COMMENTS Fenced Pasture Flow REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) Moist Channel, isolated pools, no flow (Intermitter Dry channel, no water (Ephemeral))	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Vide >10m (= 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.10 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Most Predominant per Bank) Vide >10m (= 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.10 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS OHW = 3.4'/0.4' This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY NOTE: River Left (L) and Right (R) as looking downstream ↑ RIPARIAN WIDTH L R (Most Predominant per Bank) V Wide >10m Moderate 5 10m Moderate 5 10m Residential, Park, New Field None COMMENTS Fenced Pasture Flood Residential, Park, New Field None COMMENTS Fenced Pasture Moist Channel, isolated pools, no flow (Intermitter Dry channel, no water (Ephemeral) COMMENTS SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Per Bank) Vide >10m (= 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.10 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH L R (Most Predominant per Bank) Vide >10m (= 1.5 m (> 3' 3" - 4' 8") [15 pts] 1.10 This information must also be completed RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN WIDTH FLOODPLAIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream A RIPARIAN WIDTH REPARIAN	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 14' 8") [20 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] > 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 9' 7" - 13') [20 pts]	Width Max=30

ADDITIONAL STR	S5 - S2998 REAM INFORMATION (This Information Must Also be Completed):
QHEI PE	ERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNS	STREAM DESIGNATED USE(S)
WWH Name:	Bryant Creek Distance from Evaluated Stream
CWH Name: _	_ Distance from Evaluated Stream _
EWH Name: _	Distance from Evaluated Stream
	NG: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
	e Name: Modesto / Hindustan NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Morgan	Township / City: Baker
MISCEL	LANEOUS
Base Flow Condition	ions? (Y/N):_Y Date of last precipitation:04/24/12 Quantity:0.15
Photograph Inform	nation:
Elevated Turbidity	? (Y/N): N Canopy (% open): 60%
Were samples coll	lected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures:	Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling rea	ach representative of the stream (Y/N) If not, please explain:
, J	
A LPC L	
Additional comme	nts/description of pollution impacts:
BIOTIC	EVALUATION
Performed? (Y/N):	
	ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y	
	S Observed? (Y/N) N Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Comments Regard	uing Biology.
DRA	AWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Include imp	portant landmarks and other features of interest for site evaluation and a narrative description of the stream's location
•	See Stream Assessment Form
FLOW -	S5-S299a for site topographic map,
	aerial photograph, and resource photographs

