Group 1: Points 9-17

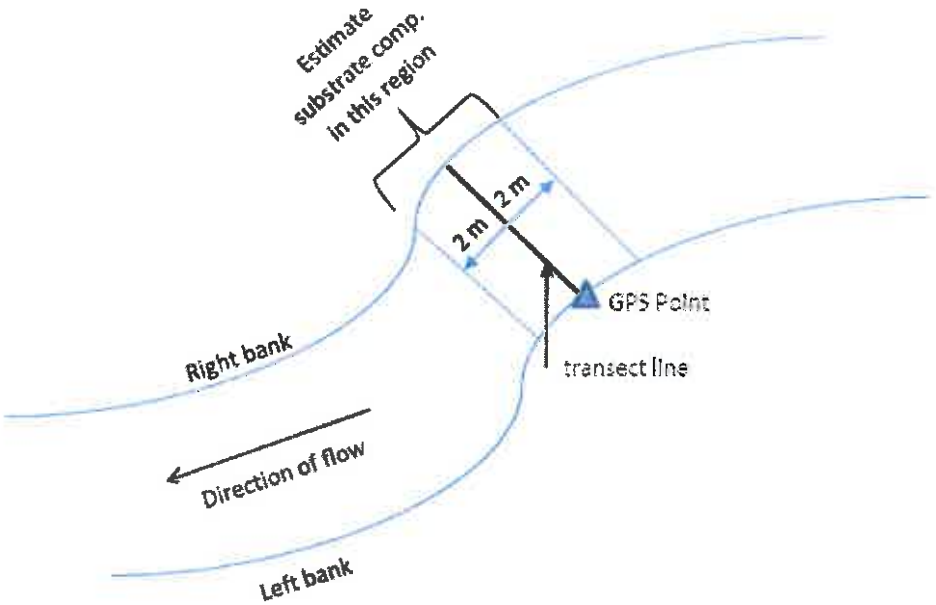
Driving Directions:
Take 91 East to 60 West.
Exit Main Street and turn right.
Main Street turns into Riverside Avenue.
Car #1 should park on Riverside Avenue where street and river cross.

After parking first car, continue on Riverside Avenue and turn right onto Agua Mansa Road.
Car #2 should park off of Agua Mansa Road in the turn out next to the drainage right before Dunn Ranch Road.
Parking the cars as directed, will ensure you are walking downstream.

Data Collection Instructions:
Locate GPS points shown on the attached Riverwalk Points Map. If the GPS Point is not in the wetted river, walk to the closest location that is in the wetted river and record on your data sheet the actual GPS location on the left bank (note: the left bank is on your left when you face downstream). If there is more than one wetted river channel, record each channel's left bank GPS location.

Here are some helpful tips:

- Please record all measurements using the metric system;
- Set up your transect lines perpendicular to the river;
- Estimate substrate components within a 2-m band on either side of the transect; make sure all substrate components add up to 100%;
- Don't forget to take photos



Flip For More Directions

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

When You Are Done:
Return to SAWPA at 11615 Sterling Ave. in Riverside to check equipment in, submit datasheets and grab lunch. Zyanya Blancas will contact your group's lead photographer to instruct them on how your group submits all site photos. Please call or text Zyanya when you are heading back or are still in the field past 1pm.

Driving Back to SAWPA:
From Car #2 location, take Agua Mansa Rd in the upstream direction of the river
Right on S. Rancho Ave
Immediate Right on S. La Cadena Dr
Follow La Cadena Dr. Straight
Left to merge onto the 215 S
Keep left, and take the exit for the 91 W
Exit Magnolia towards Pierce Street
Left onto Pierce
Left onto Sterling Ave

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 9 **Date** Oct. 6, 2016
Target UTM: **467461** **3767169**
Observers (writer/other) Bob Packard, Cristina Jurgen
Bob Kamansky, Noberto Perez

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	467404 3767083		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	2.65		
	Max Depth (cm) & Location in Channel (L/C/R*)	72		
	Depth @ Left Edge (cm) (~4" from bank edge)	18		
	Depth @ Right Edge (cm) (~4" from bank edge)	11		
	% Veg- Left Bank*	10		
	% Veg- Right Bank*	0		
	% Canopy Over Transect Band	100		
Should total 100%	Substrate % mud/silt	~~35~~ 60		
	Substrate % sand	~~25~~ 9		
	Substrate % gravel	~~25~~ 30		
	Substrate % cobble	~~5~~ 1		
	Substrate % boulder	0		
	Photo Upstream (time & #)	10:35 1		
	Photo Downstream (time & #)	10:35 2		
	Photo Left Bank* (time & #)	10:35 3		
	Photo Right Bank* (time & #)	10:35 4		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Thick veg Arroyo Chub Gambusia		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 10 **Date** Oct. 6, 2016
Target UTM: **467340** **3766938**
Observers (writer/other) Robert Hamamshy, Bob Packard
Norberto Perez, Cristina Juran

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	467333 3766944	467330 3766947	
Channel position (L/C/R*)	L	R	
Width of Channel (m)	2.1	4.0	
Max Depth (cm) & Location in Channel (L/C/R*)	20	28	
Depth @ Left Edge (cm) (~4" from bank edge)	15	1	
Depth @ Right Edge (cm) (~4" from bank edge)	5	15	
% Veg- Left Bank*	100	5	
% Veg- Right Bank*	5	90	
% Canopy Over Transect Band	75	50	
Should total 100% — Substrate % mud/silt	0	—	
Substrate % sand	0	70	
Substrate % gravel	50	20	
Substrate % cobble	50	10	
Substrate % boulder	0	0	
Photo Upstream (time & #)	11:00	11:05	
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 11 **Date** Oct. 6, 20
Target UTM: 467256 3766659
Observers (writer/other) Cristina Juran, Bob Packard, Norberto Perez, Bob Kamansky

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	467260 3766665		
	Channel position (L/C/R*)	—		
	Width of Channel (m)	6.1		
	Max Depth (cm) & Location in Channel (L/C/R*)	60 C		
	Depth @ Left Edge (cm) (~4" from bank edge)	7.0		
	Depth @ Right Edge (cm) (~4" from bank edge)	29.5		
	% Veg- Left Bank*	10		
	% Veg- Right Bank*	6		
	% Canopy Over Transect Band	50		
Should total 100%	Substrate % mud/silt	5		
	Substrate % sand	15		
	Substrate % gravel	~~20~~ 75		
	Substrate % cobble	5		
	Substrate % boulder	~~5~~		
	Photo Upstream (time & #)	11:30		
	Photo Downstream (time & #)	11:30		
	Photo Left Bank* (time & #)	11:30		
	Photo Right Bank* (time & #)	11:30		
	Photo other (describe)	—		
	Notes (e.g. Islands, Obstructions)	—		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 12 **Date** Oct. 6, 2016
Target UTM: **467150** **3766398**
Observers (writer/other) Cristina Juvan Norberto
Robert Namansky, Bob Packard

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	467145 3766407		
Channel position (L/C/R*)	~~L~~ C		
Width of Channel (m)	~~[illegible]~~ 7.6		
Max Depth (cm) & Location in Channel (L/C/R*)	43 R		
Depth @ Left Edge (cm) (~4" from bank edge)	3		
Depth @ Right Edge (cm) (~4" from bank edge)	17		
% Veg- Left Bank*	95		
% Veg- Right Bank*	90		
% Canopy Over Transect Band	40		
Substrate % mud/silt (Should total 100%)	0		
Substrate % sand	10		
Substrate % gravel	55		
Substrate % cobble	35		
Substrate % boulder	0		
Photo Upstream (time & #)	11:49 - 1		
Photo Downstream (time & #)	2		
Photo Left Bank* (time & #)	3		
Photo Right Bank* (time & #)	4		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 13 **Date** Oct. 6, 2016
Target UTM: **467044** **3766133**
Observers (writer/other) Bob Packard, Bob Kamansky
Norberto Perez, Cristina Juran

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	467064 3766134		
	Channel position (L/C/R*)	- C -		
	Width of Channel (m)	13.7		
	Max Depth (cm) & Location in Channel (L/C/R*)	41 R		
	Depth @ Left Edge (cm) (~4" from bank edge)	5		
	Depth @ Right Edge (cm) (~4" from bank edge)	5		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	80		
	% Canopy Over Transect Band	5		
Should total 100%	Substrate % mud/silt	5		
	Substrate % sand	25		
	Substrate % gravel	50		
	Substrate % cobble	20		
	Substrate % boulder	0		
	Photo Upstream (time & #)	12:16		
	Photo Downstream (time & #)	12:16		
	Photo Left Bank* (time & #)	12:16		
	Photo Right Bank* (time & #)	12:16		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 14 **Date** Oct. 6, 2016
Target UTM: **466961** **3765847**
Observers (writer/other) Bob Kamansky, Bob Packard
Norberto Perez, Cristina Juray

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	467088 3765772		
	Channel position (L/C/R*)	- C -		
	Width of Channel (m)	12.5		
	Max Depth (cm) & Location in Channel (L/C/R*)	35 R		
	Depth @ Left Edge (cm) (~4" from bank edge)	5		
	Depth @ Right Edge (cm) (~4" from bank edge)	6		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	2		
Should total 100%	Substrate % mud/silt	25		
	Substrate % sand	0		
	Substrate % gravel	10		
	Substrate % cobble	60		
	Substrate % boulder	5		
	Photo Upstream (time & #)	12:45 1		
	Photo Downstream (time & #)	12:45 2		
	Photo Left Bank* (time & #)	12:45 3		
	Photo Right Bank* (time & #)	12:47 4		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Heavy ORV use Arundo patches Much Castor Bean		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 15 **Date** Oct. 6, 2016
Target UTM: 466938 3765563
Observers (writer/other) Cristina Juran, Bob Packard
Bob Kamansky, Norberto Juran

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	466904 3765569		
	Channel position (L/C/R*)	- C -		
	Width of Channel (m)	6.0		
	Max Depth (cm) & Location in Channel (L/C/R*)	35 R		
	Depth @ Left Edge (cm) (~4" from bank edge)	1		
	Depth @ Right Edge (cm) (~4" from bank edge)	10		
	% Veg- Left Bank*	20		
	% Veg- Right Bank*	75		
	% Canopy Over Transect Band	60		
Should total 100%	Substrate % mud/silt	10 15		
	Substrate % sand	20		
	Substrate % gravel	30		
	Substrate % cobble	35		
	Substrate % boulder	0		
	Photo Upstream (time & #)	12:55		
	Photo Downstream (time & #)	12:55		
	Photo Left Bank* (time & #)	12:55		
	Photo Right Bank* (time & #)	12:55		
	Photo other (describe)	-		
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 16 **Date** Oct. 6, 2016
Target UTM: **466759** **3765354**
Observers (writer/other) Norberto Perez, Bob Kamanshy
Cristina Jovan, Bob Packard

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	466763 3765362		
	Channel position (L/C/R*)	- C -		
	Width of Channel (m)	7.25		
	Max Depth (cm) & Location in Channel (L/C/R*)	33 C		
	Depth @ Left Edge (cm) (~4" from bank edge)	15		
	Depth @ Right Edge (cm) (~4" from bank edge)	25		
	% Veg- Left Bank*	2		
	% Veg- Right Bank*	10		
	% Canopy Over Transect Band	80		
Should total 100%	Substrate % mud/silt	15		
	Substrate % sand	50		
	Substrate % gravel	30		
	Substrate % cobble	0		
	Substrate % boulder	5		
	Photo Upstream (time & #)	13:10		
	Photo Downstream (time & #)	13:10		
	Photo Left Bank* (time & #)	13:10		
	Photo Right Bank* (time & #)	13:10		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 17 **Date** Oct. 6, 2016
Target UTM: 466587 3765111
Observers (writer/other) Norberto Perez, Bob Kamansky, Robert Packard, Christina Juran

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	466587 3765118		
	Channel position (L/C/R*)	— C —		
	Width of Channel (m)	4.5		
	Max Depth (cm) & Location in Channel (L/C/R*)	64 R		
	Depth @ Left Edge (cm) (~4" from bank edge)	38		
	Depth @ Right Edge (cm) (~4" from bank edge)	64		
	% Veg- Left Bank*	0		
	% Veg- Right Bank*	0		
	% Canopy Over Transect Band	80		
Should total 100%	Substrate % mud/silt	40		
	Substrate % sand	5		
	Substrate % gravel	30		
	Substrate % cobble	20		
	Substrate % boulder	5		
	Photo Upstream (time & #)	13:30		
	Photo Downstream (time & #)	13:30		
	Photo Left Bank* (time & #)	13:30		
	Photo Right Bank* (time & #)	13:30		
	Photo other (describe)	—		
	Notes (e.g. Islands, Obstructions)	Artificial ½ dam (in photograph)		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Group 2: Points 18-26

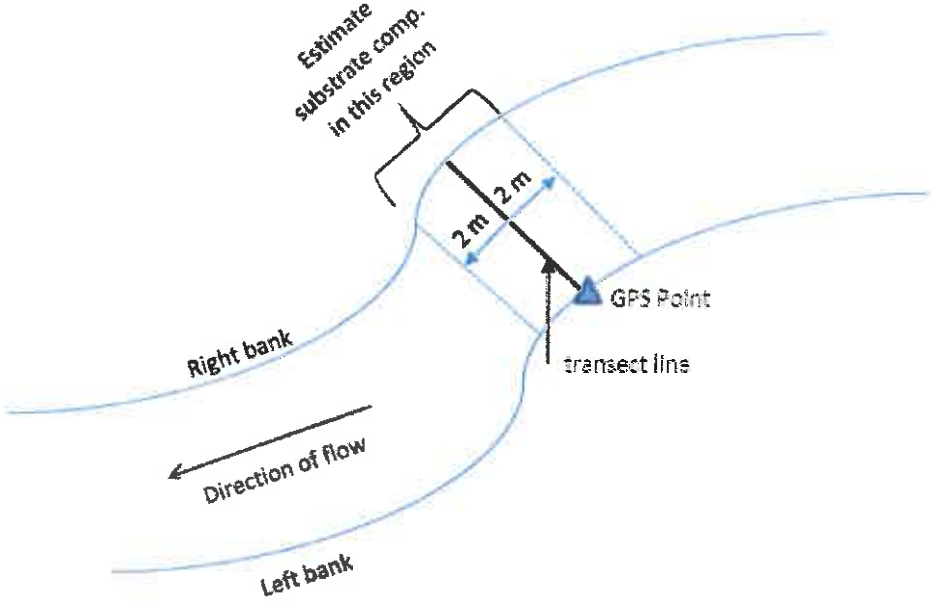
Driving Directions:
Take 91 East to 60 West.
Exit Market Street and turn right.
Car #1 should park off of Market Street where the street crosses the river.

After parking first car, turn around on Market Street and get back on 60 East.
Take next exit which is Main Street and turn left.
Main Street will turn into Riverside Avenue.
Car #2 should park on Riverside Avenue where street and river cross.
Parking the cars as directed, will ensure you are walking downstream.

Data Collection Instructions:
Locate GPS points shown on the attached Riverwalk Points Map. If the GPS Point is not in the wetted river, walk to the closest location that is in the wetted river and record on your data sheet the actual GPS location on the left bank (note: the left bank is on your left when you face downstream). If there is more than one wetted river channel, record each channel's left bank GPS location.

Here are some helpful tips:

- Please record all measurements using the metric system;
- Set up your transect lines perpendicular to the river;
- Estimate substrate components within a 2-m band on either side of the transect; make sure all substrate components add up to 100%;
- Don't forget to take photos



Flip For More Directions

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

When You Are Done:
Return to SAWPA at 11615 Sterling Ave. in Riverside to check equipment in, submit datasheets and grab lunch. Zyanya Blancas will contact your group's lead photographer to instruct them on how your group submits all site photos. Please call or text Zyanya when you are heading back or are still in the field past 1pm.

Driving Back to SAWPA:
From the Car #2 location, drive down Riverside Ave. away from the Santa Ana River
Follow it as it becomes Main St.
Continue on Main St.
Left to merge onto the 60 E
Take the exit for the 91 W
Exit Magnolia towards Pierce Street
Left onto Pierce
Left onto Sterling Ave

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 18 **Date** 10/6/16
Target UTM: **466399** **3764883**
Observers (writer/other) Randy, Nam, Jason

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	11 S 0466428 3764911		
Channel position (L/C/R*)	L		
Width of Channel (m)	8.70 M		
Max Depth (cm) & Location in Channel (L/C/R*)	~~Left edge : 7cm~~ 34 cm (center)		
Depth @ Left Edge (cm) (~4" from bank edge)	7 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	14 cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	50%		
Should total 100% — Substrate % mud/silt	50%		
Substrate % sand	0%		
Substrate % gravel	50%		
Substrate % cobble	0%		
Substrate % boulder	0%		
Photo Upstream (time & #)	#1: 9:45AM		
Photo Downstream (time & #)	#2: 9:45AM		
Photo Left Bank* (time & #)	#3: 9:45AM		
Photo Right Bank* (time & #)	#4: 9:45AM		
Photo other (describe)	N/A		
Notes (e.g. Islands, Obstructions)	Cobbles @ Riverside Ave bridge.		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 19 **Date** 10/6/16
Target UTM: **466227** **3764671**
Observers (writer/other) Sam, Jason, & Randy

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0466227 3764670		
Channel position (L/C/R*)	L		
Width of Channel (m)	14.90 M		
Max Depth (cm) & Location in Channel (L/C/R*)	32cm (C)		
Depth @ Left Edge (cm) (~4" from bank edge)	5cm		
Depth @ Right Edge (cm) (~4" from bank edge)	5cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	10%		
Should total 100% — Substrate % mud/silt	5%		
Substrate % sand	45%		
Substrate % gravel	0%		
Substrate % cobble	50%		
Substrate % boulder	0%		
Photo Upstream (time & #)	#5: 10:05AM		
Photo Downstream (time & #)	#6: 10:05AM		
Photo Left Bank* (time & #)	#7: 10:05AM		
Photo Right Bank* (time & #)	#8: 10:05AM		
Photo other (describe)	N/A		
Notes (e.g. Islands, Obstructions)	Mostly cobble from [redacted] SAS18 to SAS19		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 20 **Date** 10/6/16
Target UTM: 466104 3764403
Observers (writer/other) Randy, Nam, Jason

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0466104 3764402		
Channel position (L/C/R*)	L		
Width of Channel (m)	10.40M		
Max Depth (cm) & Location in Channel (L/C/R*)	24cm (C)		
Depth @ Left Edge (cm) (~4" from bank edge)	3cm		
Depth @ Right Edge (cm) (~4" from bank edge)	6cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	75%		
Should total 100% — Substrate % mud/silt	0%		
Substrate % sand	40%		
Substrate % gravel	0%		
Substrate % cobble	60%		
Substrate % boulder	0%		
Photo Upstream (time & #)	#9: 10:20AM		
Photo Downstream (time & #)	#10: 10:20AM		
Photo Left Bank* (time & #)	#11: 10:20AM		
Photo Right Bank* (time & #)	#12: 10:20AM		
Photo other (describe)	N/A		
Notes (e.g. Islands, Obstructions)	Mostly cobble, partial gravel (60%) from SAS19 to SAS20		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 21 **Date** 10/6/16
Target UTM: 465953 3764146
Observers (writer/other) Randy, Jason, & Nam

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0465953 3764145		
Channel position (L/C/R*)	L		
Width of Channel (m)	9.55M		
Max Depth (cm) & Location in Channel (L/C/R*)	28cm (C)		
Depth @ Left Edge (cm) (~4" from bank edge)	6cm		
Depth @ Right Edge (cm) (~4" from bank edge)	16cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	15%		
Should total 100% — Substrate % mud/silt	0%		
Substrate % sand	0%		
Substrate % gravel	30%		
Substrate % cobble	70%		
Substrate % boulder	0%		
Photo Upstream (time & #)	#13 10:30AM		
Photo Downstream (time & #)	#14 10:30AM		
Photo Left Bank* (time & #)	#15 10:30AM		
Photo Right Bank* (time & #)	#16 10:30AM		
Photo other (describe)	N/A		
Notes (e.g. Islands, Obstructions)	SAS20 to halfway to SAS21: sandy		

The SAS20 to SAS21 Southern Segment is gravels.

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 22 **Date** 10/6/16
Target UTM: **465757** **3763921**
Observers (writer/other) Randy, Jason, Dan

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0465757 3763921		
Channel position (L/C/R*)	C		
Width of Channel (m)	6.67M		
Max Depth (cm) & Location in Channel (L/C/R*)	36cm		
Depth @ Left Edge (cm) (~4" from bank edge)	5cm		
Depth @ Right Edge (cm) (~4" from bank edge)	20cm		
% Veg- Left Bank*	30%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	10%		
Should total 100% — Substrate % mud/silt	0%		
Substrate % sand	0%		
Substrate % gravel	0%		
Substrate % cobble	100%		
Substrate % boulder	0%		
Photo Upstream (time & #)	#17 10:45AM		
Photo Downstream (time & #)	#18 10:45AM		
Photo Left Bank* (time & #)	#19 10:45AM		
Photo Right Bank* (time & #)	#20 10:45AM		
Photo other (describe)	N/A		
Notes (e.g. Islands, Obstructions)	90% cobbles from SAS21 to SAS22 segment		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 23 **Date** 10/6/16
Target UTM: **465548** **3763710**
Observers (writer/other) Randy, Jason, Nam

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	465548 3763709		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	7.45M		
	Max Depth (cm) & Location in Channel (L/C/R*)	26cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	6cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	7cm		
	% Veg- Left Bank*	0%		
	% Veg- Right Bank*	50%		
	% Canopy Over Transect Band	5%		
Should total 100%	Substrate % mud/silt	5%		
	Substrate % sand	15%		
	Substrate % gravel	0%		
	Substrate % cobble	80%		
	Substrate % boulder	0%		
	Photo Upstream (time & #)	#21: 11:00 AM		
	Photo Downstream (time & #)	#22: 11:00 AM		
	Photo Left Bank* (time & #)	#23 11:00AM		
	Photo Right Bank* (time & #)	#24 11:00AM		
	Photo other (describe)	N/A		
	Notes (e.g. Islands, Obstructions)	Northern segment between SAS22 & SAS23, mostly cobbles, very light sand		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 24 **Date** 10/6/16
Target UTM: **465400** **3763456**
Observers (writer/other) Randy, Jason, Nam

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0465387 3763456		
Channel position (L/C/R*)	C		
Width of Channel (m)	7.2M		
Max Depth (cm) & Location in Channel (L/C/R*)	27cm		
Depth @ Left Edge (cm) (~4" from bank edge)	17cm		
Depth @ Right Edge (cm) (~4" from bank edge)	15cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	50%		
Should total 100% — Substrate % mud/silt	10%		
Substrate % sand	30%		
Substrate % gravel	10%		
Substrate % cobble	50		
Substrate % boulder	0%		
Photo Upstream (time & #)	#25: 11:10AM		
Photo Downstream (time & #)	#26: 11:10AM		
Photo Left Bank* (time & #)	#27: 11:10AM		
Photo Right Bank* (time & #)	#28 11:10AM		
Photo other (describe)	N/A		
Notes (e.g. Islands, Obstructions)	Segment btwn SAS 23 & 24: mostly cobble, partial sand		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 25 **Date** 10/6/16
Target UTM: **465129** **3763345**
Observers (writer/other) Randy, Jason, Nam

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0465109 3763345		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	9.4M		
	Max Depth (cm) & Location in Channel (L/C/R*)	23cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	2cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	3cm		
	% Veg- Left Bank*	30%		
	% Veg- Right Bank*	30%		
	% Canopy Over Transect Band	25%		
Should total 100%	Substrate % mud/silt	0%		
	Substrate % sand	25%		
	Substrate % gravel	25%		
	Substrate % cobble	50%		
	Substrate % boulder	0%		
	Photo Upstream (time & #)	#29 11:25AM		
	Photo Downstream (time & #)	#30 11:25AM		
	Photo Left Bank* (time & #)	#31 11:25AM		
	Photo Right Bank* (time & #)	#32 11:25AM		
	Photo other (describe)	N/A		
	Notes (e.g. Islands, Obstructions)	Segment SAS25 to SAS is mainly sand with light cobble.		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 26 **Date** 10/6/16
Target UTM: **464939** **3763126**
Observers (writer/other) Randy, Jason, Nam

Boulders:
0464941
3763173
N 34° 00.514'
W 117° 22.781'
Photo #33534

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0464931 3763120		
Channel position (L/C/R*)	C		
Width of Channel (m)	9.3M		
Max Depth (cm) & Location in Channel (L/C/R*)	20CM		
Depth @ Left Edge (cm) (~4" from bank edge)	6cm		
Depth @ Right Edge (cm) (~4" from bank edge)	8cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	40%		
% Canopy Over Transect Band	10%		
Should total 100%: Substrate % mud/silt	0%		
Substrate % sand	0%		
Substrate % gravel	20%		
Substrate % cobble	80%		
Substrate % boulder	0%		
Photo Upstream (time & #)	35536 11:40AM		
Photo Downstream (time & #)	37 11:40AM		
Photo Left Bank* (time & #)	38 11:40AM		
Photo Right Bank* (time & #)	39 11:40AM		
Photo other (describe)	N/A		
Notes (e.g. Islands, Obstructions)	North of SAS26: Island.		

Btwn SAS25 & 26, 70% , 20% of gravel & cobbles

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Riverwalk 2016

Additional Information Datasheet

Please use this form to note any gravel patches measuring a minimum of roughly 3mx3m you find OUTSIDE of your point locations.

Group: 2 **Date:** 10/16/16

Observers: Randy, Jason, Nam

Give or send all data sheets and photos to Zyanya Blancas (951) 354-4220. Address: ATTN: Zyanya Blancas, Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, CA 92503. Email: zblancas@sawpa.org

LOCATION 1

GPS coordinates in UTM (at left bank)	0466428 3764911
Gravel length (m)	4M
Gravel width (m)	4.4M
Channel position (L/R/C)	L
Max water depth (cm)	34cm
Algae present?	YES
Photo upstream #	1
Notes	Primarily cobbles from Riverside Dr bridge towards SAS19

LOCATION 2

GPS coordinates in UTM (at left bank)	0466227 3764672
Gravel length (m)	40M
Gravel width (m)	140M
Channel position (L/R/C)	L
Max water depth (cm)	32cm
Algae present?	NO
Photo upstream #	#5
Notes	Mostly cobble along northern segment, btwn SAS18 to SAS19

LOCATION 3

GPS coordinates in UTM (at left bank)	0466104 3764402
Gravel length (m)	0M
Gravel width (m)	0M
Channel position (L/R/C)	L
Max water depth (cm)	24cm
Algae present?	YES
Photo upstream #	9
Notes	Mostly cobbles from SAS19 to SAS20

LOCATION 4

GPS coordinates in UTM (at left bank)	0465953 3764145
Gravel length (m)	3.4M
Gravel width (m)	3.8M
Channel position (L/R/C)	L
Max water depth (cm)	28
Algae present?	YES
Photo upstream #	#13
Notes	Mostly cobbles at the northern segment btwn SAS20 to SAS21. Southern segment is gravels

LOCATION 5

GPS coordinates in UTM (at left bank)	0465757 3763921
Gravel length (m)	0M
Gravel width (m)	0M
Channel position (L/R/C)	C
Max water depth (cm)	36cm
Algae present?	NO
Photo upstream #	#17
Notes	Segment btwn SAS21 to SAS22, 90%(+) cobbles

LOCATION 6

GPS coordinates in UTM (at left bank)	0465548 3763749
Gravel length (m)	0
Gravel width (m)	0
Channel position (L/R/C)	C
Max water depth (cm)	26cm
Algae present?	YES
Photo upstream #	#21
Notes	Segment btwn 22 to 23, northern areas are cobbles, and southern are cobbles & sand

Left bank: when facing downstream

L/R/C: Left/Right/Center when facing downstream

LOCATION 7

GPS coordinates in UTM (at left bank)	0465387 3763456
Gravel length (m)	4M
Gravel width (m)	2M
Channel position (L/R/C)	C
Max water depth (cm)	27cm
Algae present?	YES
Photo upstream #	#25 to [redacted]
Notes	Segment btwn SAS23 to SAS24, mostly cobbles & sand

LOCATION 8

GPS coordinates in UTM (at left bank)	0465109 3763345
Gravel length (m)	4M
Gravel width (m)	3.9M
Channel position (L/R/C)	L
Max water depth (cm)	23cm
Algae present?	YES
Photo upstream #	#29 [redacted]
Notes	Seg. btwn SAS24 to SAS25 is mainly sand with light cobbles

LOCATION 9

GPS coordinates in UTM (at left bank)	0464931 3763120
Gravel length (m)	4M
Gravel width (m)	2.2M
Channel position (L/R/C)	C
Max water depth (cm)	20cm
Algae present?	YES
Photo upstream #	#35 to [redacted] 36
Notes	Seg. btwn SAS25 to SAS26 composed of 70% gravels & 30% cobbles

LOCATION 10

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 11

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 12

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

Left bank: when facing downstream

L/R/C: Left/Right/Center when facing downstream

2016 River Walk Group 3
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 27 **Date** 10/6/16
Target UTM: **464730** **3762923**
Observers (writer/other) Steve Garcia, Chris Medak, (Joanna Gilkeson)

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0464719 3762935		
Channel position (L/C/R*)	Right		
Width of Channel (m)	6.59 meters		
Max Depth (cm) & Location in Channel (L/C/R*)	45.3 cm (R)		
Depth @ Left Edge (cm) (~4" from bank edge)	~~[illegible] cm~~ 2 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	~~[illegible] cm~~ 19.5 cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	75%		
% Canopy Over Transect Band	9%		
Should total 100% — Substrate % mud/silt	—		
Substrate % sand	30%		
Substrate % gravel	10%		
Substrate % cobble	58%		
Substrate % boulder	~~[illegible]~~ 2%		
Photo Upstream (time & #) 1			
Photo Downstream (time & #) ~~[illegible]~~ 2			
Photo Left Bank* (time & #) ~~[illegible]~~ 3			
Photo Right Bank* (time & #) 4			
Photo other (describe) 5	extra		
Notes (e.g. Islands, Obstructions)	Boulders on R side of channel		

Substrate

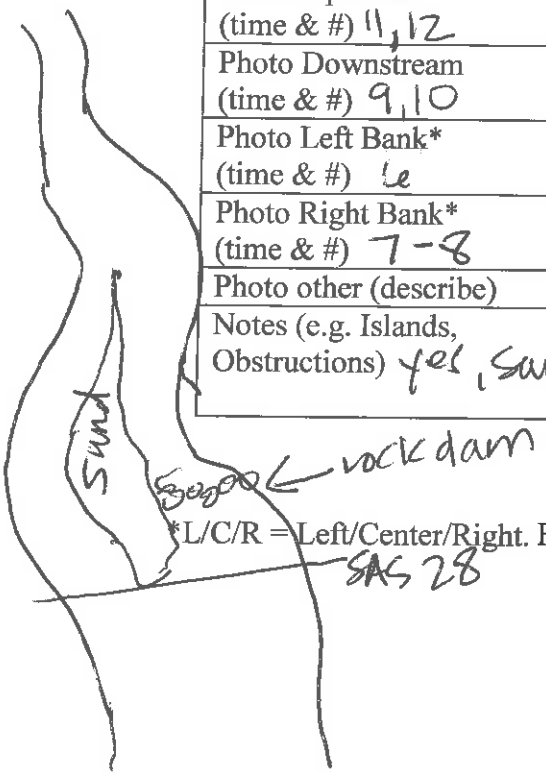
*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 28 **Date**_____
Target UTM: 464595 3762657
Observers (writer/other) Garcia, Medak Gilkeson

Photo 1e:
* Rock dam & island in middle (right at edge of SAS 28)

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0464589, 3762664		
	Channel position (L/C/R*)	right		
	Width of Channel (m)	10.3 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	23.5 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	1.5 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	3 cm		
	% Veg- Left Bank*			
	% Veg- Right Bank*	/		
	% Canopy Over Transect Band	0 veg- under bridge		
Should total 100%	Substrate % mud/silt			
	Substrate % sand	50%		
	Substrate % gravel	20%		
	Substrate % cobble	30%		
	Substrate % boulder			
	Photo Upstream (time & #) 11, 12			
	Photo Downstream (time & #) 9, 10			
	Photo Left Bank* (time & #) 1e			
	Photo Right Bank* (time & #) 7-8			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions) yes, sand island			



*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 29 **Date**_____
Target UTM: 464539 3762368
Observers (writer/other) Gurr'a, Medak, Grikerson

Photo #13 - Arundo between 28-29
Photo 14 - Cattails - before 29

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0464536, 3762376		
	Channel position (L/C/R*)	~~R~~		
	Width of Channel (m)	8.5		
	Max Depth (cm) & Location in Channel (L/C/R*)	28 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	16.7 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	1 cm		
	% Veg- Left Bank*	80%		
	% Veg- Right Bank*	90%		
	% Canopy Over Transect Band	15%		
Should total 100%	Substrate % mud/silt	1%		
	Substrate % sand	~~[illegible]~~ 40%		
	Substrate % gravel	10% (silt over top)		
	Substrate % cobble	~~5~~ 49%		
	Substrate % boulder			
	Photo Upstream (time & #) 15			
	Photo Downstream (time & #) 17			
	Photo Left Bank* (time & #) 16			
	Photo Right Bank* (time & #) 18			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Photo #19 - photo of substrate

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 30 **Date**_____
Target UTM: 464467 3762083
Observers (writer/other) Garcia, Medak, Gilkeson

*Immediately after SAS 30, the

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0464424, 3762100		
Channel position (L/C/R*)	leftside		
Width of Channel (m)	7.5 meters		
Max Depth (cm) & Location in Channel (L/C/R*)	21 cm		
Depth @ Left Edge (cm) (~4" from bank edge)	.6 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	8cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	10%		
Should total 100% — Substrate % mud/silt	5%		
Substrate % sand	50%		
Substrate % gravel	35%		
Substrate % cobble	10%		
Substrate % boulder			
Photo Upstream (time & #) 21			
Photo Downstream (time & #) 23			
Photo Left Bank* (time & #) 22			
Photo Right Bank* (time & #) 24			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Huge Island, lots of sand		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Photo #20 - GPS unit
Photo #25 green algae/substrate

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 31 **Date**_____
Target UTM: 464296 3761837
Observers (writer/other) Garcia, Medak, Gilkeson

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0464291, 3761843		
	Channel position (L/C/R*)	leftside		
	Width of Channel (m)	9.10		
	Max Depth (cm) & Location in Channel (L/C/R*)	21 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	.4 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	2 cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	20%		
Should total 100%	Substrate % mud/silt	20%		
	Substrate % sand	20%		
	Substrate % gravel	60%		
	Substrate % cobble	—		
	Substrate % boulder	—		
	Photo Upstream (time & #) 31			
	Photo Downstream (time & #) 33			
	Photo Left Bank* (time & #) 32			
	Photo Right Bank* (time & #) 34			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

Photo #26 - tent between SAS 30 & 31 (encampment)
Photo #27 - invasion, erosion

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Photo #28 - algae substrate
Photo #29 - cat tails
Photo #30 - GPS

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 32 **Date**_____
Target UTM: **464096** **3761623**
Observers (writer/other) Garcia, Medak, Gilkeson

We saw a feral hog! Hog poop, & lots of tracks!

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0464118, 3761603		
	Channel position (L/C/R*)	leftside		
	Width of Channel (m)	12.55m		
	Max Depth (cm) & Location in Channel (L/C/R*)	25 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	.5		
	Depth @ Right Edge (cm) (~4" from bank edge)	8 cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	10%		
Should total 100%	Substrate % mud/silt	5%		
	Substrate % sand	50%		
	Substrate % gravel	45%		
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #) 31e			
	Photo Downstream (time & #) 38			
	Photo Left Bank* (time & #) 37			
	Photo Right Bank* (time & #) 39			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

Photo 31 - riprap (?)
32 - erosion, tree
33 - Footprints
34 " "
35 GPS unit

Photo #40 - log

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 33 **Date**_____
Target UTM: 463908 3761402
Observers (writer/other) Garcia, Medak, Gilkeson

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0463903,	3761387	
	Channel position (L/C/R*)	Left		
	Width of Channel (m)	ie. 75 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	27 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	1.7 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	1.0 cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	30%		
Should total 100%	Substrate % mud/silt	30%		
	Substrate % sand	45%		
	Substrate % gravel	20%		
	Substrate % cobble	5%		
	Substrate % boulder	—		
	Photo Upstream (time & #) 42			
	Photo Downstream (time & #) 44			
	Photo Left Bank* (time & #) 43			
	Photo Right Bank* (time & #) 45			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions) Photo 41e - substrate			

Photo 41 - tracks for 4wheeler or car

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 34 **Date**_____
Target UTM: 463646 3761265
Observers (writer/other) Garcia, Medak, Gilkeson

* Disconnected side channel adjacent to transect 1-2 meters in size

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0463635, 3761285		
Channel position (L/C/R*)	leftside		
Width of Channel (m)	6.5 m		
Max Depth (cm) & Location in Channel (L/C/R*)	19 cm		
Depth @ Left Edge (cm) (~4" from bank edge)	1 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	1.4 %		
% Veg- Left Bank*	100		
% Veg- Right Bank*	90%		
% Canopy Over Transect Band	10%		
Should total 100%: Substrate % mud/silt	5%		
Substrate % sand	40%		
Substrate % gravel	55%		
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	on JG's camera (USFWS		
Photo Downstream (time & #)	↓		
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Photo 47 - campfire that spread 45cm - depth (right after transect 33) Photos 48 & 49 - homeless camp Photo 50 - trail to homeless encampment		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Group #4

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 35 **Date** 10/06/2016
Target UTM: 463439 3761054
Observers (writer/other) Kai Palenscar, Amanda Swalker

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	same	same	
Channel position (L/C/R*)	R	R	
Width of Channel (m)	3.4m	7.4m	
Max Depth (cm) & Location in Channel (L/C/R*)	8.5cm (C)	32 cm C	
Depth @ Left Edge (cm) (~4" from bank edge)	0.9cm	~~.4cm~~ 2cm	
Depth @ Right Edge (cm) (~4" from bank edge)	4.8 cm	.4cm	
% Veg- Left Bank*	100 %	0 %	
% Veg- Right Bank*	38 %	100 %	
% Canopy Over Transect Band	45 %	@ 15 %	
Should total 100% — Substrate % mud/silt	50 %	0 %	
Substrate % sand	45 %	40 %	
Substrate % gravel	5 %	39 %	
Substrate % cobble	0 %	1 %	
Substrate % boulder	0 %	0 %	
Photo Upstream (time & #)	10:00 (1)	10:20 (1)	
Photo Downstream (time & #)	10:00 (2)	10:20 (2)	
Photo Left Bank* (time & #)	10:00 (3)	10:20 (3)	
Photo Right Bank* (time & #)	10:00 (4)	10:20 (4)	
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Island, ↑		

*Within flood plain

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

evidence of Pig tracks

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 36 **Date** 10/06/2016
Target UTM: **463262** **3760812**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	SAME		
	Channel position (L/C/R*)	R		
	Width of Channel (m)	4.2M		
	Max Depth (cm) & Location in Channel (L/C/R*)	22 CM (C)		
	Depth @ Left Edge (cm) (~4" from bank edge)	1.6 (CM)		
	Depth @ Right Edge (cm) (~4" from bank edge)	2 CM		
	% Veg- Left Bank*	100 %		
	% Veg- Right Bank*	0 %		
	% Canopy Over Transect Band	5 %		
Should total 100%	Substrate % mud/silt	0 %		
	Substrate % sand	30 %		
	Substrate % gravel	65 %		
	Substrate % cobble	5 %		
	Substrate % boulder	0 %		
	Photo Upstream (time & #)	10:40 (1)		
	Photo Downstream (time & #)	10:40 (2)		
	Photo Left Bank* (time & #)	10:40 (3)		
	Photo Right Bank* (time & #)	10:40 (4)		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Pig tracks		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 37 **Date** 10/04/2016
Target UTM: **463084** **3760573**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	SAME		
	Channel position (L/C/R*)	~~C~~ Right		
	Width of Channel (m)	7.3 (m)		
	Max Depth (cm) & Location in Channel (L/C/R*)	29 cm (L)		
	Depth @ Left Edge (cm) (~4" from bank edge)	17 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	1 cm		
	% Veg- Left Bank*	100 %		
	% Veg- Right Bank*	0 %		
	% Canopy Over Transect Band	10 %		
Should total 100%	Substrate % mud/silt	2 %		
	Substrate % sand	15 %		
	Substrate % gravel	83 %		
	Substrate % cobble	0 %		
	Substrate % boulder	0 %		
	Photo Upstream (time & #)	10:55 (1)		
	Photo Downstream (time & #)	10:55 (2)		
	Photo Left Bank* (time & #)	10:55 (3)		
	Photo Right Bank* (time & #)	10:55 (4)		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Pig tracks		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 38 **Date** 10/06/2014
Target UTM: **462880** **3760354**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	~~3.7~~ SAME	~~12.2~~ SAME	
Channel position (L/C/R*)	R	R	
Width of Channel (m)	3.2 m	2.6 m	
Max Depth (cm) & Location in Channel (L/C/R*)	34 cm (C)	~~34 cm (C)~~ 13 cm (R)	
Depth @ Left Edge (cm) (~4" from bank edge)	5.5 cm	3 cm	
Depth @ Right Edge (cm) (~4" from bank edge)	4.5 cm	11 cm	
% Veg- Left Bank*	100 %	5 %	
% Veg- Right Bank*	100 %	100 %	
% Canopy Over Transect Band	95 %	40 %	
Should total 100% — Substrate % mud/silt	10 %	45 %	
Substrate % sand	48 %	55 %	
Substrate % gravel	40 %	0 %	
Substrate % cobble	2 %	0 %	
Substrate % boulder	0 %	0 %	
Photo Upstream (time & #)	11:11 (1)	11:11 (1)	
Photo Downstream (time & #)	11:11 (2)	11:11 (2)	
Photo Left Bank* (time & #)	11:11 (3)	11:11 (3)	
Photo Right Bank* (time & #)	11:11 (4)	11:11 (4)	
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Island		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 39 **Date** 10/06/2016
Target UTM: **462706** **3760111**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	SAME		
Channel position (L/C/R*)	R		
Width of Channel (m)	8.7 m		
Max Depth (cm) & Location in Channel (L/C/R*)	18.5 cm (C)		
Depth @ Left Edge (cm) (~4" from bank edge)	2.8 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	7 cm		
% Veg- Left Bank*	100 %		
% Veg- Right Bank*	100 %		
% Canopy Over Transect Band	3 %		
Substrate % mud/silt	4 %		
Substrate % sand	65 % ~~70 %~~		
Substrate % gravel	35 % ~~25~~ %		
Substrate % cobble	0 %		
Substrate % boulder	0 %		
Photo Upstream (time & #)	11:30 (1)		
Photo Downstream (time & #)	11:30 (2)		
Photo Left Bank* (time & #)	11:30 (3)		
Photo Right Bank* (time & #)	11:30 (4)		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

Should total 100%

US +35

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 40 **Date** 10/06/2014
Target UTM: **462526** **3759882**
Observers (writer/other)_____

8.3
134
- 8.3
5.1

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)			
Channel position (L/C/R*)	~~5.00 m~~ (R)	~~5.1 m~~ (R)	
Width of Channel (m)	5.0M	5.1 M	
Max Depth (cm) & Location in Channel (L/C/R*)	9 CM C	21 CM	
Depth @ Left Edge (cm) (~4" from bank edge)	4 cm	1.8 CM	
Depth @ Right Edge (cm) (~4" from bank edge)	1.8 CM	3.5 cm	
% Veg- Left Bank*	100 /.	25 /.	
% Veg- Right Bank*	40 /.	100 /.	
% Canopy Over Transect Band	15	85 /.	
Should total 100% — Substrate % mud/silt	1 /.	1 /.	
Substrate % sand	34 /.	~~47 /.~~ 47 /.	
Substrate % gravel	~~45~~ /.	~~47~~ /. 45 /.	
Substrate % cobble	0 /.	7 /.	
Substrate % boulder	0 /.	0 /.	
Photo Upstream (time & #)	11:50 (1)	11:50 (1)	
Photo Downstream (time & #)	11:50 (2)	11:50 (2)	
Photo Left Bank* (time & #)	11:50 (3)	11:50 (3)	
Photo Right Bank* (time & #)	11:50 (4)	11:50 (4)	
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Island		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 41 **Date** 10/06/2016
Target UTM: 462388 **3759638**
Observers (writer/other)______________________

Reason to move: Hotless camp

13.5

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
* Actual GPS coordinates in UTM (@ Left Bank*)	462354		
Channel position (L/C/R*)	L		
Width of Channel (m)	9.5 m		
Max Depth (cm) & Location in Channel (L/C/R*)	14 cm (C)		
Depth @ Left Edge (cm) (~4" from bank edge)	2.1 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	2.1 cm		
% Veg- Left Bank*	85 %		
% Veg- Right Bank*	100 %		
% Canopy Over Transect Band	0 %		
Should total 100% — Substrate % mud/silt	15 %		
Substrate % sand	54 %		
Substrate % gravel	~~25 %~~ 30 %		
Substrate % cobble	1 %		
Substrate % boulder			
Photo Upstream (time & #)	12:07 (1)		
Photo Downstream (time & #)	12:07 (2)		
Photo Left Bank* (time & #)	12:07 (3)		
Photo Right Bank* (time & #)	12:07 (4)		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Tributary.		

96

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 42 **Date** 10/06/2016
Target UTM: **462124** **3759501**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	SAME		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	11.7 M		
	Max Depth (cm) & Location in Channel (L/C/R*)	23 CM L		
	Depth @ Left Edge (cm) (~4" from bank edge)	artificial pool 18 CM		
	Depth @ Right Edge (cm) (~4" from bank edge)	3 cm		
	% Veg- Left Bank*	85 %		
	% Veg- Right Bank*	100 %		
	% Canopy Over Transect Band	5 %		
Should total 100%	Substrate % mud/silt	5 %		
	Substrate % sand	65 %		
	Substrate % gravel	30 %		
	Substrate % cobble	0 %		
	Substrate % boulder	0 %		
	Photo Upstream (time & #)	12:20 (1)		
	Photo Downstream (time & #)	12:20 (2)		
	Photo Left Bank* (time & #)	12:20 (3)		
	Photo Right Bank* (time & #)	12:20 (4)		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Artificial pool on left bank		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 43 **Date** 10/06/2016
Target UTM: **461833** **3759443**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	SAME		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	8M		
	Max Depth (cm) & Location in Channel (L/C/R*)	17cm (C)		
	Depth @ Left Edge (cm) (~4" from bank edge)	4cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	8cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	40%		
	% Canopy Over Transect Band	2%		
Should total 100%	Substrate % mud/silt	4%		
	Substrate % sand	40%		
	Substrate % gravel	56%		
	Substrate % cobble	0%		
	Substrate % boulder	0%		
	Photo Upstream (time & #)	12:40 (1)		
	Photo Downstream (time & #)	12:40 (2)		
	Photo Left Bank* (time & #)	12:40 (3)		
	Photo Right Bank* (time & #)	12:40 (4)		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Group 5

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 44 **Date** 10/6/16
Target UTM: 461555 - 3759337
Observers (writer/other) Chris Jones, Rick Zapien
Joanne Lee

Location #01 (see map)

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0461548 3759337		
Channel position (L/C/R*)	L		
Width of Channel (m)	11.5 m		
Max Depth (cm) & Location in Channel (L/C/R*)	30 cm (R)		
Depth @ Left Edge (cm) (~4" from bank edge)	3 cm (L) ~~6 cm (R)~~		
Depth @ Right Edge (cm) (~4" from bank edge)	6 cm (R)		
% Veg- Left Bank*	80 %		
% Veg- Right Bank*	100 %		
% Canopy Over Transect Band	85 %		
Substrate % mud/silt	25		
Substrate % sand	74		
Substrate % gravel	1		
Substrate % cobble	0		
Substrate % boulder	0		
Photo Upstream (time & #)	1 10:19		
Photo Downstream (time & #)	2 10:19		
Photo Left Bank* (time & #)	3 10:19		
Photo Right Bank* (time & #)	4 10:19		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Camp (homeless) on L (w/dogs) Trash		

Should total 100%

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 45 **Date** 10/6/16
Target UTM: 461287 ~ 3759267
Observers (writer/other) Chris Jones, Rick Zapien
Joanne Lee
#002 (See map)

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	~~002~~ 3759274 0461260 (N)		
Channel position (L/C/R*)	L		
Width of Channel (m)	13.6 m		
Max Depth (cm) & Location in Channel (L/C/R*)	34		
Depth @ Left Edge (cm) (~4" from bank edge)	2.5		
Depth @ Right Edge (cm) (~4" from bank edge)	4.5		
% Veg- Left Bank*	100		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	60		
Should total 100% — Substrate % mud/silt	5		
Substrate % sand	93		
Substrate % gravel	2		
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	5 10:40		
Photo Downstream (time & #)	6 10:40		
Photo Left Bank* (time & #)	7 10:40		
Photo Right Bank* (time & #)	8 10:40		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Algae (L bank) (Filamentes)-Red		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 46 **Date** 10/6/16
Target UTM: 461003 3759182
Observers (writer/other) Chris Jones, Rick Zapien
Joanne Lee
#005 (See map)

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0461002 3759179		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	8 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	22 cm (C)		
	Depth @ Left Edge (cm) (~4" from bank edge)	15 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	3 cm		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	95		
	% Canopy Over Transect Band	25%		
Should total 100%	Substrate % mud/silt	3		
	Substrate % sand	86		
	Substrate % gravel	10		
	Substrate % cobble	1		
	Substrate % boulder	0		
	Photo Upstream (time & #)	#12 11:18 am		
	Photo Downstream (time & #)	#13 11:18 am		
	Photo Left Bank* (time & #)	#14 11:18 am		
	Photo Right Bank* (time & #)	#15 11:18 am		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Algae on cobbles gravels; some (filamentous) algae		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 47 **Date** 10/6/16
Target UTM: 460830 3758944
Observers (writer/other) Chris Jones, Rick Zapien
Joanne Lee

#009 # ~~007~~ (see map) L R

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	460830 3758944	460830 3758944	✓
	Channel position (L/C/R*)	C	L	
	Width of Channel (m)	5.4 m	8.8 m	
	Max Depth (cm) & Location in Channel (L/C/R*)	32 (L2C)	14 cm	
	Depth @ Left Edge (cm) (~4" from bank edge)	8.5 cm	2 cm	
	Depth @ Right Edge (cm) (~4" from bank edge)	3 cm	2 cm	
	% Veg- Left Bank*	50	100	
	% Veg- Right Bank*	100	100	
	% Canopy Over Transect Band	5 %	60	
Should total 100%	Substrate % mud/silt	~~5~~ 10		
	Substrate % sand	87 %	40 %	
	Substrate % gravel	3	60 %	
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	#19 11:54	#23 11:59	
	Photo Downstream (time & #)	#20 11:54	#24 11:59	
	Photo Left Bank* (time & #)	#21 11:54	#25 11:59	
	Photo Right Bank* (time & #)	#22 11:54	#26 11:59	
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Island - Y Algae present (L bank)	60% of channel not visible (estimating)	

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 48 **Date** 10/6/16
Target UTM: 460606 – 3758749
Observers (writer/other) Chris Jones, Rick Zapien
Joanne Lee

#013

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	460603 3758752		
	Channel position (L/C/R*)	R		
	Width of Channel (m)	6.1 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	26 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	7 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	24 cm		
	% Veg- Left Bank*	5% Cate by pigs		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	50%		
Should total 100%	Substrate % mud/silt	0		
	Substrate % sand	95%		
	Substrate % gravel	5%		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	#26 12:29 PM		
	Photo Downstream (time & #)	#27 12:29		
	Photo Left Bank* (time & #)	#28 12:29		
	Photo Right Bank* (time & #)	#29 12:29		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Veg. ate by pigs on L bank.		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 49 **Date** 10/6/16
Target UTM: 460324 3758705
Observers (writer/other) Chris Jones, Rick Zapien

014

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0460324 3758714		
	Channel position (L/C/R*)	R		
	Width of Channel (m)	16.3 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	22 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	14 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	4 cm		
	% Veg- Left Bank*	95%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	75%		
Should total 100%	Substrate % mud/silt	0		
	Substrate % sand	95		
	Substrate % gravel	5		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	#30 12:43 pm		
	Photo Downstream (time & #)	#31 12:43		
	Photo Left Bank* (time & #)	#32 12:43		
	Photo Right Bank* (time & #)	#33 12:43		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Remnent channel to the east (L)		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 50 **Date** 10/6/16
Target UTM: 460046 3758748
Observers (writer/other) Chris Jones, Rick Zapien
Joanne Lee

#016

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0460041 3758764		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	14 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	22 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	3 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	12 cm		
	% Veg- Left Bank*	2 %		
	% Veg- Right Bank*	0.5%		
	% Canopy Over Transect Band	10 %		
Should total 100%	Substrate % mud/silt	50		
	Substrate % sand	25		
	Substrate % gravel	25		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	#35		
	Photo Downstream (time & #)	#36		
	Photo Left Bank* (time & #)	#37		
	Photo Right Bank* (time & #)	#38		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Move way pt. to right some algae on rocks (bottom)		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 51 **Date** 10/6/16
Target UTM: **459807** **3758720**
Observers (writer/other) Chris Jones, Rick Zapien
Joanne Lee

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	459807 3758720		
	Channel position (L/C/R*)			
	Width of Channel (m)	22 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	24 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	7.5 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	7cm		
	% Veg- Left Bank*	50		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	5 %		
Should total 100%	Substrate % mud/silt	5		
	Substrate % sand	70		
	Substrate % gravel	25		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	# 36		
	Photo Downstream (time & #)	# 37 1:17 pm		
	Photo Left Bank* (time & #)	# 38 1:17 pm		
	Photo Right Bank* (time & #)	# 39 1:17 pm		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Fishes (small) L bank - colder H2O		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

LOCATION 7 # 011

GPS coordinates in UTM (at left bank)	0460739 3758870
Gravel length (m)	31.5
Gravel width (m)	5 m
Channel position (L/R/C)	C & R
Max water depth (cm)	33 cm
Algae present?	Y (bottom)
Photo upstream #	#24 (12:11am)
Notes	Lots of cobbles/gravel @ bottom Swift-moving H_2O

LOCATION 8 # 012

GPS coordinates in UTM (at left bank)	0460937 3758779
Gravel length (m)	17.2 m
Gravel width (m)	3 m
Channel position (L/R/C)	R
Max water depth (cm)	34 ~~27-5~~ cm
Algae present?	Y (L bank C)
Photo upstream #	#25 (12:22pm)
Notes	2 narrow channels w/ gravels w/ Island; Measurement on R channel Swift flowing H_2O

LOCATION 9 # 015

GPS coordinates in UTM (at left bank)	0460197 3758783
Gravel length (m)	17.8
Gravel width (m)	5 m
Channel position (L/R/C)	C
Max water depth (cm)	13 cm
Algae present?	Very little
Photo upstream #	#34 (12:51pm)
Notes	Lots of gravels @ bottom Pea gravel size; no cobbles

LOCATION 10 # 017

GPS coordinates in UTM (at left bank)	0459977 3758720
Gravel length (m)	28.4 m
Gravel width (m)	5.2 m
Channel position (L/R/C)	L
Max water depth (cm)	16 cm
Algae present?	Yes (bottom)
Photo upstream #	#35
Notes	Algae on rocks @ bottom (mixture) decent amt. of gravels filamentous & others)

LOCATION 11

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 12

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

Left bank: when facing downstream
L/R/C: Left/Right/Center when facing downstream

Riverwalk 2016

Additional Information Datasheet

Please use this form to note any gravel patches measuring a minimum of roughly 3mx3m you find OUTSIDE of your point locations.

Group: 5 **Date:** 10/6/16

Observers: Chris Jones, Rick Zapien, Joanne Lee

Give or send all data sheets and photos to Zyanya Blancas (951) 354-4220. Address: ATTN: Zyanya Blancas, Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, CA 92503. Email: zblancas@sawpa.org

LOCATION 1 #003

GPS coordinates in UTM (at left bank)	0461049 3759223
Gravel length (m)	21
Gravel width (m)	5
Channel position (L/R/C)	R center
Max water depth (cm)	9 cm
Algae present?	Yes (Filamentous)
Photo upstream #	9 (10:57am)
Notes	Pigs left bank (pig tracks)

Photo #10 (R bank) - 10:58am

LOCATION 2 #004

GPS coordinates in UTM (at left bank)	0460996 3759175
Gravel length (m)	29
Gravel width (m)	7 m
Channel position (L/R/C)	C & R
Max water depth (cm)	13 cm
Algae present?	Yes
Photo upstream #	11 (11:07am)
Notes	Some algae (green Filamentous)

LOCATION 3 #006

GPS coordinates in UTM (at left bank)	0460926 3759131
Gravel length (m)	30.7
Gravel width (m)	4
Channel position (L/R/C)	R
Max water depth (cm)	14
Algae present?	Y
Photo upstream #	#16 (11:28am)
Notes	Heaviest gravel conc. on R. Less dense distribution on the L (gravel)

LOCATION 4 #007

GPS coordinates in UTM (at left bank)	0460899 3759098
Gravel length (m)	12.6
Gravel width (m)	3.3 m
Channel position (L/R/C)	C
Max water depth (cm)	23 cm
Algae present?	Yes (little bit)
Photo upstream #	#17 (11:34am)
Notes	Minimal algae

LOCATION 5 #008

GPS coordinates in UTM (at left bank)	0460848 3759013
Gravel length (m)	26.7
Gravel width (m)	8.5
Channel position (L/R/C)	~~all across~~ C+L
Max water depth (cm)	14 cm
Algae present?	Yes
Photo upstream #	#18- 11:43am
Notes	Cobbles present (mixed), woody debris

LOCATION 6 #010

GPS coordinates in UTM (at left bank)	0460793 3758918
Gravel length (m)	29.8 m
Gravel width (m)	3 m
Channel position (L/R/C)	R
Max water depth (cm)	34 cm
Algae present?	Y (bottom) - L
Photo upstream #	#23 (12:05pm)
Notes	Lots of cobbles - Swift moving H2O - Algae (filamentous)

Left bank: when facing downstream

L/R/C: Left/Right/Center when facing downstream

Group 6: Points 52-61

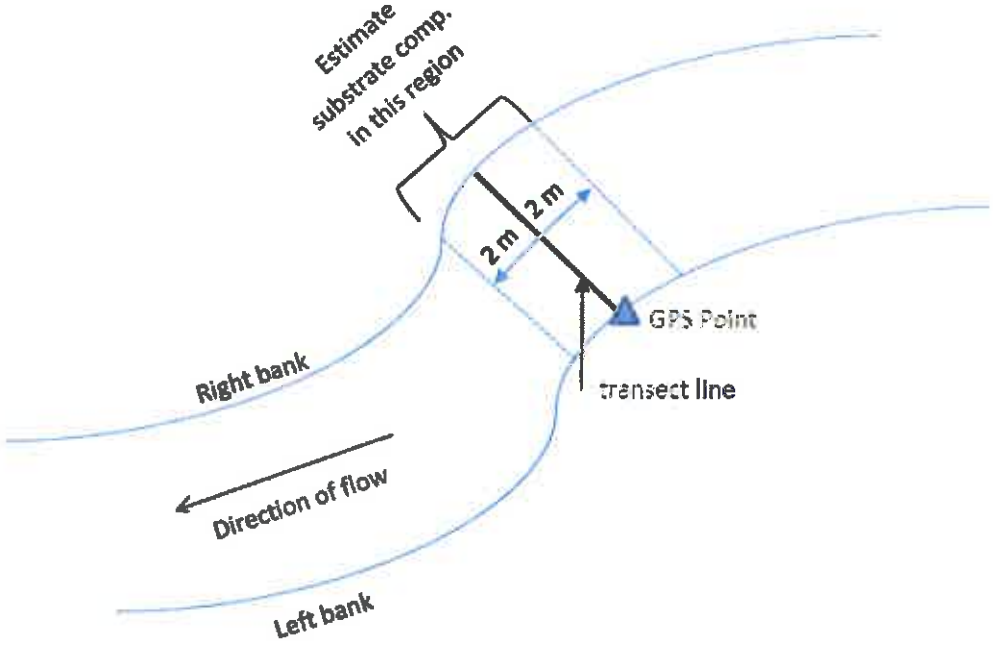
Driving Directions:
Take 91 East and exit Van Buren Boulevard.
Turn left onto Indiana Avenue, then a quick left onto Van Buren Boulevard.
Take Van Buren Boulevard past Arlington Avenue
Left onto Jurupa Avenue.
Car #1 should park at Van Buren Boulevard and Jurupa Avenue.

After parking first car, turn around and take Jurupa Avenue to Martha McLean-Anza Narrows Park.
Park is located on the left side of Jurupa Avenue after the railroad overpass.
Car #2 should park upstream at the Martha McLean-Anza Narrows Park.
Parking the cars as directed, will ensure you are walking downstream.

Data Collection Instructions: Locate GPS points shown on the attached Riverwalk Points Map. If the GPS Point is not in the wetted river, walk to the closest location that is in the wetted river and record on your data sheet the actual GPS location on the left bank (note: the left bank is on your left when you face downstream). If there is more than one wetted river channel, record each channel's left bank GPS location.

Here are some helpful tips:

- Please record all measurements using the metric system;
- Set up your transect lines perpendicular to the river;
- Estimate substrate components within a 2-m band on either side of the transect; make sure all substrate components add up to 100%;
- Don't forget to take photos



Flip For More Directions

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

When You Are Done:
Return to SAWPA at 11615 Sterling Ave. in Riverside to check equipment in, submit datasheets and grab lunch. Zyanya Blancas will contact your group's lead photographer to instruct them on how your group submits all site photos. Please call or text Zyanya when you are heading back or are still in the field past 1pm.

Driving Back to SAWPA:
From the Car #2 location, leave Martha McLean-Anza Narrows Park towards Jurupa Ave.
Lleft onto Jurupa Ave,
Right onto Streeter Ave which will merge with Grand Ave.
Left onto Arlington Ave,
Right onto Madison St and
Right to merge onto 91 W
Exit Magnolia towards Pierce Street
Left onto Pierce
Left onto Sterling Ave

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 52 **Date** 9/6/16
Target UTM: **459545** **3758820**
Observers (writer/other) HD D.B

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	3758807 11S 0459500		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	11.2		
	Max Depth (cm) & Location in Channel (L/C/R*)	33		
	Depth @ Left Edge (cm) (~4" from bank edge)	25		
	Depth @ Right Edge (cm) (~4" from bank edge)	4		
	% Veg- Left Bank*	950		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	10		
Should total 100%	Substrate % mud/silt	20		
	Substrate % sand	40		
	Substrate % gravel	35		
	Substrate % cobble	5		
	Substrate % boulder	0		
	Photo Upstream (time & #)	954A		
	Photo Downstream (time & #)	954BA		
	Photo Left Bank* (time & #)	954A		
	Photo Right Bank* (time & #)	954A		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Aquatic Veg Cover.		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 53 **Date** 10/14
Target UTM: 459260 3758737
Observers (writer/other) HD, DB,

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	UTM3758768 115 0459255	UTM3758768 115 0459255	
	Channel position (L/C/R*)	C	C	
	Width of Channel (m)	6.05	7.59	
	Max Depth (cm) & Location in Channel (L/C/R*)	20	32.5	
	Depth @ Left Edge (cm) (~4" from bank edge)	8.5	7	
	Depth @ Right Edge (cm) (~4" from bank edge)	12.5	6	
	% Veg- Left Bank*	0	100	
	% Veg- Right Bank*	100	0	
	% Canopy Over Transect Band	70	15	
Should total 100%	Substrate % mud/silt	70	0	
	Substrate % sand	15	65	
	Substrate % gravel	15	35	
	Substrate % cobble	6	0	
	Substrate % boulder	0	0	
	Photo Upstream (time & #)	1015	1616	
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	Wild pigs Seen Aquatic Veg Cover on banks		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 54 **Date** 10/16/16
Target UTM: **458984** **3758633**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	UTM 3758045 458983		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	11.75		
	Max Depth (cm) & Location in Channel (L/C/R*)	23		
	Depth @ Left Edge (cm) (~4" from bank edge)	2.5		
	Depth @ Right Edge (cm) (~4" from bank edge)	2		
	% Veg- Left Bank*	25		
	% Veg- Right Bank*	50		
	% Canopy Over Transect Band	5%		
Should total 100%	Substrate % mud/silt	0		
	Substrate % sand	60		
	Substrate % gravel	35		
	Substrate % cobble	5		
	Substrate % boulder	0		
	Photo Upstream (time & #)	1029A		
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 55 **Date** 10/16/16
Target UTM: **458706** **3758704**
Observers (writer/other) HD, DB

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	UTM 3758735 11S0458745	UTM 3758735 11S0458747	
	Channel position (L/C/R*)	C	C	
	Width of Channel (m)	6.1	1.9	
	Max Depth (cm) & Location in Channel (L/C/R*)	43	12.5	
	Depth @ Left Edge (cm) (~4" from bank edge)	16	3	
	Depth @ Right Edge (cm) (~4" from bank edge)	5cm	2.5	
	% Veg- Left Bank*	100	0	
	% Veg- Right Bank*	50	50	
	% Canopy Over Transect Band	30	5	
Should total 100%	Substrate % mud/silt	0	0	
	Substrate % sand	50	60	
	Substrate % gravel	45	40	
	Substrate % cobble	5	0	
	Substrate % boulder	0	0	
	Photo Upstream (time & #)	1044AM	1049A	
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	√ Island bw 2channels.jpg prop	↓	

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 56 **Date** 10/6/16
Target UTM: **458409** **3758736**
Observers (writer/other) HD, DB

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	UTM 3758743 458348		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	22.9		
	Max Depth (cm) & Location in Channel (L/C/R*)	19		
	Depth @ Left Edge (cm) (~4" from bank edge)	4		
	Depth @ Right Edge (cm) (~4" from bank edge)	65		
	% Veg- Left Bank*	80		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	10		
Should total 100%	Substrate % mud/silt	5		
	Substrate % sand	70		
	Substrate % gravel	25		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	11A		
	Photo Downstream (time & #)	|		
	Photo Left Bank* (time & #)	|		
	Photo Right Bank* (time & #)	|		
	Photo other (describe)	√		
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 57 **Date** 10/16
Target UTM: **458138** **3758633**
Observers (writer/other) HD, DB

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	UTM 3758048 1150458121		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	18.25		
	Max Depth (cm) & Location in Channel (L/C/R*)	34		
	Depth @ Left Edge (cm) (~4" from bank edge)	14		
	Depth @ Right Edge (cm) (~4" from bank edge)	12		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	10		
Should total 100%	Substrate % mud/silt	0		
	Substrate % sand	95		
	Substrate % gravel	5		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	11:10		
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 58 **Date** 10/6/16
Target UTM: 457904 3758451
Observers (writer/other) HDB

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	UTM 3758468 115047909		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	23.12		
	Max Depth (cm) & Location in Channel (L/C/R*)	22.5		
	Depth @ Left Edge (cm) (~4" from bank edge)	11.5		
	Depth @ Right Edge (cm) (~4" from bank edge)	28		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band			
Should total 100%	Substrate % mud/silt	5		
	Substrate % sand	75		
	Substrate % gravel	20		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	1121		
	Photo Downstream (time & #)	1121 A		
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 59 **Date** 10/16/16
Target UTM: 457622 3758348
Observers (writer/other) HD, DB

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	UTM 375 8355 115 04571608		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	10.4		
	Max Depth (cm) & Location in Channel (L/C/R*)	24		
	Depth @ Left Edge (cm) (~4" from bank edge)	7.5		
	Depth @ Right Edge (cm) (~4" from bank edge)	8		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	5		
Should total 100%	Substrate % mud/silt	0		
Should total 100%	Substrate % sand	100		
Should total 100%	Substrate % gravel	0		
Should total 100%	Substrate % cobble	0		
Should total 100%	Substrate % boulder	0		
	Photo Upstream (time & #)	1132A		
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 60 **Date** 10/6/16
Target UTM: **457350** **3758251**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	UTM 3758215 457806		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	13.8		
	Max Depth (cm) & Location in Channel (L/C/R*)	225		
	Depth @ Left Edge (cm) (~4" from bank edge)	2		
	Depth @ Right Edge (cm) (~4" from bank edge)	12		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	10		
Should total 100%	Substrate % mud/silt	5		
	Substrate % sand	95		
	Substrate % gravel	0		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	1149		
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	V		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 61 **Date** 10/6/16
Target UTM: **457069** **3758165**
Observers (writer/other) HD, DB

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	UTM 3758188 1150457042		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	12.85		
	Max Depth (cm) & Location in Channel (L/C/R*)	45		
	Depth @ Left Edge (cm) (~4" from bank edge)	13		
	Depth @ Right Edge (cm) (~4" from bank edge)	9		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	15		
Should total 100%	Substrate % mud/silt	10		
	Substrate % sand	90		
	Substrate % gravel	0		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	1159		
	Photo Downstream (time & #)	|		
	Photo Left Bank* (time & #)	|		
	Photo Right Bank* (time & #)	|		
	Photo other (describe)	✓		
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 62 **Date** 10/6/16
Target UTM: **456796** **3758041**
Observers (writer/other) Priya — supa group
Cymbke Ian Phillip

face downstream won @ where channels are

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0456901 3758096		
Channel position (L/C/R*)	L ~~40m 13.4m~~		
Width of Channel (m)	13.4 m		
Max Depth (cm) & Location in Channel (L/C/R*)	right ~~left~~ - 50 cm center - 22 cm left ~~right~~ - 20 cm ~~left center~~		
Depth @ Left Edge (cm) (~4" from bank edge)	57 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	20 cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	20%		
Substrate % mud/silt	0%		
Substrate % sand	95%		
Substrate % gravel	5%		
Substrate % cobble	0%		
Substrate % boulder	0%		
Photo Upstream (time & #)	✓		
Photo Downstream (time & #)	✓		
Photo Left Bank* (time & #)	✓		
Photo Right Bank* (time & #)	✓		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	heavy flow filamentous algae		

Should total 100% (substrate rows)

all the way till vegetation

sucker fish feeds on algae, not dense filamentous algae

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2m by 2m
rectangle
parametric
help [illegible]
how and
[illegible]

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 63 **Date**_____
Target UTM: **456516** **3758092**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0456555 3758103		
Channel position (L/C/R*)	L		
Width of Channel (m)	19.2 m		
Max Depth (cm) & Location in Channel (L/C/R*)	center - 20 cm right - 35.5 cm left - 45 cm		
Depth @ Left Edge (cm) (~4" from bank edge)	45 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	35.5 cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	80%		
% Canopy Over Transect Band	10%		
Should total 100% — Substrate % mud/silt	0 %		
Substrate % sand	70 %		
Substrate % gravel	30 %		
Substrate % cobble	0 %		
Substrate % boulder	0 %		
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	duck beaver		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 64 **Date**_____
Target UTM: **456219** **3758120**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0456238 3758166		
	Channel position (L/C/R*)	left		
	Width of Channel (m)	20.75 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	left - 34 cm center - [illegible] right - [illegible] 36cm	36cm 5cm	
	Depth @ Left Edge (cm) (~4" from bank edge)	34 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	36 cm		
	% Veg- Left Bank*	100 %		
	% Veg- Right Bank*	100 %		
	% Canopy Over Transect Band	15%		
Should total 100%	Substrate % mud/silt			
Should total 100%	Substrate % sand	95%		
Should total 100%	Substrate % gravel	5%		
Should total 100%	Substrate % cobble			
Should total 100%	Substrate % boulder			
	Photo Upstream (time & #)			
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	low - here middle - shallow sand bar downstream from pt.		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 65 **Date**__________
Target UTM: 455953 3758238
Observers (writer/other)____________________

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0456017 3758286		
Channel position (L/C/R*)	left		
Width of Channel (m)	19.8 m		
Max Depth (cm) & Location in Channel (L/C/R*)	Left - 16 cm center - 79 cm right - 19 cm		
Depth @ Left Edge (cm) (~4" from bank edge)	16 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	19cm		
% Veg- Left Bank*	8%		
% Veg- Right Bank*	8%		
% Canopy Over Transect Band	100% - right bank 60 - left bank		
Substrate % mud/silt (Should total 100%)			
Substrate % sand	~~100~~ 90%		
Substrate % gravel	5%		
Substrate % cobble	5%		
Substrate % boulder			
Photo Upstream (time & #)	|		
Photo Downstream (time & #)	|		
Photo Left Bank* (time & #)	|		
Photo Right Bank* (time & #)	|		
Photo other (describe)	|		
Notes (e.g. Islands, Obstructions)	~~nonceltae~~ ~~algae~~ nonceltae duckweed		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 66 **Date** 10/5/16
Target UTM: 455786 3758478
Observers (writer/other) Priya, Cynthia, Phil, Ian

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0455864 3758467		
Channel position (L/C/R*)	Left		
Width of Channel (m)	20.15 m		
Max Depth (cm) & Location in Channel (L/C/R*)	Left - 30 cm center - 24 cm Right - 6 cm		
Depth @ Left Edge (cm) (~4" from bank edge)	30 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	6 cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	20%		
Should total 100% — Substrate % mud/silt			
Substrate % sand	80%		
Substrate % gravel	19%		
Substrate % cobble	1%		
Substrate % boulder	~~19%~~		
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

37 cm ?

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 67 **Date**_____
Target UTM: **455537** **3758623**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0455590 3758653		
Channel position (L/C/R*)	left		
Width of Channel (m)	27.1 m		
Max Depth (cm) & Location in Channel (L/C/R*)	L- 21 cm C- 20 cm R- 12 cm		
Depth @ Left Edge (cm) (~4" from bank edge)			
Depth @ Right Edge (cm) (~4" from bank edge)			
% Veg- Left Bank*	100		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	~5%		
Should total 100% — Substrate % mud/silt			
Substrate % sand	98 %		
Substrate % gravel	2%		
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

20 cm

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 68 **Date**_____
Target UTM: **455246** **3758601**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	455272 3758654		
Channel position (L/C/R*)	~~Left~~ right		
Width of Channel (m)	23.1	41 cm	
Max Depth (cm) & Location in Channel (L/C/R*)	L - 23 cm - max depth C - 45 cm R - 32 cm		
Depth @ Left Edge (cm) (~4" from bank edge)			
Depth @ Right Edge (cm) (~4" from bank edge)			
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	30%		
Substrate % mud/silt	—		
Substrate % sand	100%		
Substrate % gravel	—		
Substrate % cobble	—		
Substrate % boulder	—		
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

Not good habitat

Should total 100%

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

cent — two wider earth channels; · dominant to flood [illegible]

Transect Name: SAS 69 **Date**__________
Target UTM: 455019 3758411
Observers (writer/other)______________________

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0455044 3758473		
Channel position (L/C/R*)	Right		
Width of Channel (m)	21.4 m		
Max Depth (cm) & Location in Channel (L/C/R*)	L - 7 cm C - 20 cm R - ~~22~~ 25 cm - max		
Depth @ Left Edge (cm) (~4" from bank edge)	cm		
Depth @ Right Edge (cm) (~4" from bank edge)			
% Veg- Left Bank*	80 %		
% Veg- Right Bank*	100 %		
% Canopy Over Transect Band	0 %		
Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

Should total 100% (substrate rows)

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

orange county vs chino aunt cafe

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 70 **Date**_____
Target UTM: 454789 **3758479**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)			
	Channel position (L/C/R*)			
	Width of Channel (m)			
	Max Depth (cm) & Location in Channel (L/C/R*)			
	Depth @ Left Edge (cm) (~4" from bank edge)			
	Depth @ Right Edge (cm) (~4" from bank edge)			
	% Veg- Left Bank*			
	% Veg- Right Bank*			
	% Canopy Over Transect Band			
Should total 100%	Substrate % mud/silt			
	Substrate % sand			
	Substrate % gravel			
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)			
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 71 **Date**_____
Target UTM: **454863** **3758759**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)			
	Channel position (L/C/R*)			
	Width of Channel (m)			
	Max Depth (cm) & Location in Channel (L/C/R*)			
	Depth @ Left Edge (cm) (~4" from bank edge)			
	Depth @ Right Edge (cm) (~4" from bank edge)			
	% Veg- Left Bank*			
	% Veg- Right Bank*			
	% Canopy Over Transect Band			
Should total 100%	Substrate % mud/silt			
	Substrate % sand			
	Substrate % gravel			
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)			
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

LOCATION 7

GPS coordinates in UTM (at left bank)	0455 272 3758654
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	Right
Max water depth (cm)	23 cm
Algae present?	no
Photo upstream #	
Notes	not a good habit

LOCATION 8

GPS coordinates in UTM (at left bank)	0455044 3758473
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	Right
Max water depth (cm)	25 cm
Algae present?	yes
Photo upstream #	
Notes	

LOCATION 9

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 10

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 11

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 12

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

Left bank: when facing downstream
L/R/C: Left/Right/Center when facing downstream

Riverwalk 2016

Additional Information Datasheet

Please use this form to note any gravel patches measuring a minimum of roughly 3mx3m you find OUTSIDE of your point locations.

Group: _____ **Date:** _____

Observers: _____

Give or send all data sheets and photos to Zyanya Blancas (951) 354-4220. Address: ATTN: Zyanya Blancas, Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, CA 92503. Email: zblancas@sawpa.org

LOCATION 1

GPS coordinates in UTM (at left bank)	0455864 3758467
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	Left
Max water depth (cm)	
Algae present?	yes
Photo upstream #	
Notes	good habitat; heavy flow filamentous algae

LOCATION 2

GPS coordinates in UTM (at left bank)	0456555 3758103
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	Left
Max water depth (cm)	35.5 cm
Algae present?	yes
Photo upstream #	
Notes	duck leaves visible

LOCATION 3

GPS coordinates in UTM (at left bank)	0456238 3758166
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	Left
Max water depth (cm)	
Algae present?	yes
Photo upstream #	
Notes	low tide - mallow downstream from P4

LOCATION 4

GPS coordinates in UTM (at left bank)	0456017 3758286
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	Left
Max water depth (cm)	20 cm
Algae present?	yes
Photo upstream #	
Notes	nonnative duckweeds

LOCATION 5

GPS coordinates in UTM (at left bank)	0455864 3758467
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	left
Max water depth (cm)	37 cm
Algae present?	yes
Photo upstream #	
Notes	

LOCATION 6

GPS coordinates in UTM (at left bank)	0455590 3758653
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	Left
Max water depth (cm)	28 cm
Algae present?	yes
Photo upstream #	
Notes	

Left bank: when facing downstream

L/R/C: Left/Right/Center when facing downstream

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 72 **Date** 10-6-2016
Target UTM: **454748** **3758936**
Observers (writer/other) Lynn Miller, Jim

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	Exact 454752 3758959		
Channel position (L/C/R*)	L		
Width of Channel (m)	22.1 m		
Max Depth (cm) & Location in Channel (L/C/R*)	45.0CM		
Depth @ Left Edge (cm) (~4" from bank edge)	27.0CM		
Depth @ Right Edge (cm) (~4" from bank edge)	9.5CM		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	75%		
Should total 100% — Substrate % mud/silt	0		
Substrate % sand	100%		
Substrate % gravel	0		
Substrate % cobble	0		
Substrate % boulder	0		
Photo Upstream (time & #)	#1 10:47		
Photo Downstream (time & #)	#2 10:49		
Photo Left Bank* (time & #)	3 10:50		
Photo Right Bank* (time & #)	4 10:51		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 73 **Date** 10/6
Target UTM: **454455** **3758993**
Observers (writer/other) [illegible], Lynn Miller

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	454462 3759009	454470 3759019	
Channel position (L/C/R*)	L	L	
Width of Channel (m)	10.9 m	12.85 m	
Max Depth (cm) & Location in Channel (L/C/R*)	52.0 cm	53 cm	
Depth @ Left Edge (cm) (~4" from bank edge)	12.9 cm	23 cm	
Depth @ Right Edge (cm) (~4" from bank edge)	18.0 cm	14.7	
% Veg- Left Bank*	100 %	100 %	
% Veg- Right Bank*	100 %	100 %	
% Canopy Over Transect Band	10 %	17 %	
Should total 100% — Substrate % mud/silt			
Substrate % sand	100 %	80	
Substrate % gravel		4	
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	5 11:27	9 11:43	
Photo Downstream (time & #)	6 11:28	10 11:43	
Photo Left Bank* (time & #)	7 11:28	11 11:43	
Photo Right Bank* (time & #)	8 11:28	12 11:44	
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 74 **Date** 10/6
Target UTM: **454159** **3759037**
Observers (writer/other) Mulrhill, Lynn Miller

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	454166 3759049	[illegible] 301 [illegible]	
Channel position (L/C/R*)	L	L	
Width of Channel (m)	23.55m		
Max Depth (cm) & Location in Channel (L/C/R*)	37.5cm		
Depth @ Left Edge (cm) (~4" from bank edge)	24.3cm		
Depth @ Right Edge (cm) (~4" from bank edge)	25.1cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	4%		
Substrate % mud/silt			
Substrate % sand	90%		
Substrate % gravel	10%		
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	12:13 13		
Photo Downstream (time & #)	12:13 14		
Photo Left Bank* (time & #)	12:14 15		
Photo Right Bank* (time & #)	12:14 16		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

Should total 100% (substrate rows)

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 75 **Date** 10/6
Target UTM: **453874** **3759120**
Observers (writer/other) Mulvihill, Lynn Miller

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	453871 3759120		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	19.66m		
	Max Depth (cm) & Location in Channel (L/C/R*)	35 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	22 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	16 cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	80%		
	% Canopy Over Transect Band	15%		
Should total 100%	Substrate % mud/silt			
	Substrate % sand	95%		
	Substrate % gravel	3%		
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)	12:39 17		
	Photo Downstream (time & #)	12:39 18		
	Photo Left Bank* (time & #)	12:39 19		
	Photo Right Bank* (time & #)	12:39 20		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 76 **Date** 10/6
Target UTM: **453587** **3759156**
Observers (writer/other) Lynn Miller, Jim

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	453591 3759189		
Channel position (L/C/R*)	L		
Width of Channel (m)	20.84 m		
Max Depth (cm) & Location in Channel (L/C/R*)	38.1 cm		
Depth @ Left Edge (cm) (~4" from bank edge)	17 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	27 cm		
% Veg- Left Bank*	100		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	12%		
Should total 100% — Substrate % mud/silt			
Substrate % sand	99 %		
Substrate % gravel	1 %		
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	13:03 21		
Photo Downstream (time & #)	13:03 22		
Photo Left Bank* (time & #)	13:03 23		
Photo Right Bank* (time & #)	13:03 24		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 77 **Date** 10/6
Target UTM: **453294** **3759167**
Observers (writer/other) [illegible], Lynn Miller

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	453296 3759201	453301 3759223	
Channel position (L/C/R*)		L	
Width of Channel (m)	8.25m	15.2 m	
Max Depth (cm) & Location in Channel (L/C/R*)	73.2 cm	54.2 cm	
Depth @ Left Edge (cm) (~4" from bank edge)	1.7cm	18.1cm	
Depth @ Right Edge (cm) (~4" from bank edge)	1.6 cm	21.9 cm	
% Veg- Left Bank*	100	100	
% Veg- Right Bank*	100	100	
% Canopy Over Transect Band	15%	8%	
Should total 100%: Substrate % mud/silt			
Substrate % sand	100 %	99 %	
Substrate % gravel		1 %	
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	13.24 25	13.43 29	
Photo Downstream (time & #)	13.28 26	13.43 30	
Photo Left Bank* (time & #)	13:28 27	13.43 31	
Photo Right Bank* (time & #)	13.28 28	13.43 32	
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Group 9: Points 78-82

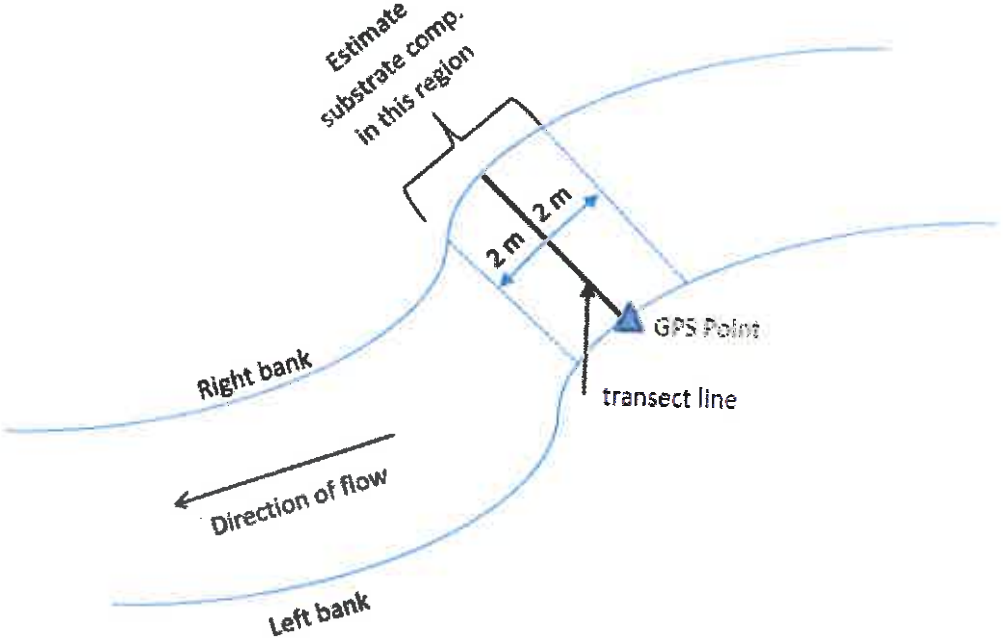
Driving Directions:
Take 91 East and exit Van Buren Boulevard.
Turn left onto Indiana Avenue then a quick left onto Van Buren Boulevard.
Take Van Buren Boulevard over the river to Limonite Avenue.
Turn left onto Limonite Avenue.
Turn left onto Ridgeview Avenue and turn left into the Horse Park on left side of road.
Car #1 should park at the Horse Park off of Ridgeview Avenue.

After parking first car, turn around and turn right onto Limonite Avenue.
Turn left onto Bain Street.
Car #2 should park upstream on Bain Street and Limonite Avenue.
Parking the cars as directed, will ensure you are walking downstream.

Data Collection Instructions: Locate GPS points shown on the attached Riverwalk Points Map. If the GPS Point is not in the wetted river, walk to the closest location that is in the wetted river and record on your data sheet the actual GPS location on the left bank (note: the left bank is on your left when you face downstream). If there is more than one wetted river channel, record each channel's left bank GPS location.

Here are some helpful tips:

- Please record all measurements using the metric system;
- Set up your transect lines perpendicular to the river;
- Estimate substrate components within a 2-m band on either side of the transect; make sure all substrate components add up to 100%;
- Don't forget to take photos



Flip For More Directions

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

When You Are Done:
Return to SAWPA at 11615 Sterling Ave. in Riverside to check equipment in, submit datasheets and grab lunch. Zyanya Blancas will contact your group's lead photographer to instruct them on how your group submits all site photos. Please call or text Zyanya when you are heading back or are still in the field past 1pm.

Driving Back to SAWPA:
From the Car #2 location, drive down Bain St. toward Limonite Ave
Left onto Limonite Ave
Right to merge onto Van Buren Blvd
Right to merge onto 91 West
Exit Magnolia towards Pierce Street
Left onto Pierce
Left onto Sterling Ave

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 79 **Date** 10/6/16
Target UTM: **452731** **3759199**
Observers (writer/other) R. Hamilton, N Stutzman, J Easton

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	3759232 #5 0452724		
Channel position (L/C/R*)	L		
Width of Channel (m)	24m		
Max Depth (cm) & Location in Channel (L/C/R*)	26cm C		
Depth @ Left Edge (cm) (~4" from bank edge)	5cm		
Depth @ Right Edge (cm) (~4" from bank edge)	6cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	20%		
Should total 100%: Substrate % mud/silt	5		
Substrate % sand	84		
Substrate % gravel	1		
Substrate % cobble	10		
Substrate % boulder	0		
Photo Upstream (time & #)	✓		
Photo Downstream (time & #)	✓		
Photo Left Bank* (time & #)	✓		
Photo Right Bank* (time & #)	✓		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 80 **Date** 10/6/16
Target UTM: **452566** **3758961**
Observers (writer/other) B.Hamilton, N.Stutzman, J.Easton

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0452512 3758978		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	23m		
	Max Depth (cm) & Location in Channel (L/C/R*)	40cm L/C		
	Depth @ Left Edge (cm) (~4" from bank edge)	7cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	7cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	25%		
Should total 100%	Substrate % mud/silt	25%		
	Substrate % sand	64%		
	Substrate % gravel	10%		
	Substrate % cobble	1%		
	Substrate % boulder	0		
	Photo Upstream (time & #)	✓		
	Photo Downstream (time & #)	✓		
	Photo Left Bank* (time & #)	✓		
	Photo Right Bank* (time & #)	✓		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	patch of gravel @ left bank w/in transect :)		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 81 **Date** 10/6/16
Target UTM: **452441** **3758698**
Observers (writer/other) R. Hamilton, N. Stutzman, J. Easton

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)			
	Channel position (L/C/R*)			
	Width of Channel (m)	27 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	32 C/R		
	Depth @ Left Edge (cm) (~4" from bank edge)	10cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	6m		
	% Veg- Left Bank*	50%		
	% Veg- Right Bank*	50%		
	% Canopy Over Transect Band	10%		
Should total 100%	Substrate % mud/silt	5%		
	Substrate % sand	89%		
	Substrate % gravel	5%		
	Substrate % cobble	1%		
	Substrate % boulder	0%		
	Photo Upstream (time & #)	✓		
	Photo Downstream (time & #)	✓		
	Photo Left Bank* (time & #)	✓		
	Photo Right Bank* (time & #)	✓		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 82 **Date** 10/6/16
Target UTM: **452149** **3758681**
Observers (writer/other) B. Hamilton, N. Stutzman, J. Easton

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0452173 3758712		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	25 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	45cm R		
	Depth @ Left Edge (cm) (~4" from bank edge)	6cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	11cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	20%		
Should total 100%	Substrate % mud/silt	12%		
Should total 100%	Substrate % sand	87%		
Should total 100%	Substrate % gravel	1%		
Should total 100%	Substrate % cobble	0		
Should total 100%	Substrate % boulder	0		
	Photo Upstream (time & #)	✓		
	Photo Downstream (time & #)	✓		
	Photo Left Bank* (time & #)	✓		
	Photo Right Bank* (time & #)	✓		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Riverwalk 2016

Additional Information Datasheet

Please use this form to note any gravel patches measuring a minimum of roughly 3mx3m you find OUTSIDE of your point locations.

Group: 9 **Date:** 10/6/16

Observers: R. Hamilton, N. Stutzman, J. Easton

Give or send all data sheets and photos to Zyanya Blancas (951) 354-4220. Address: ATTN: Zyanya Blancas, Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, CA 92503. Email: zblancas@sawpa.org

LOCATION 1

GPS coordinates in UTM (at left bank)	0452570 3759155
Gravel length (m)	8m
Gravel width (m)	3m
Channel position (L/R/C)	C/R
Max water depth (cm)	13cm
Algae present?	NO
Photo upstream #	#233
Notes	

LOCATION 2

GPS coordinates in UTM (at left bank)	0452283 3758685
Gravel length (m)	14m
Gravel width (m)	3m
Channel position (L/R/C)	R
Max water depth (cm)	19cm
Algae present?	Yes
Photo upstream #	#242
Notes	

LOCATION 3

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 4

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 5

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 6

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

Left bank: when facing downstream

L/R/C: Left/Right/Center when facing downstream

LOCATION 7

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 8

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 9

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 10

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 11

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 12

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

Left bank: when facing downstream
L/R/C: Left/Right/Center when facing downstream

Group 10: Points 83-89

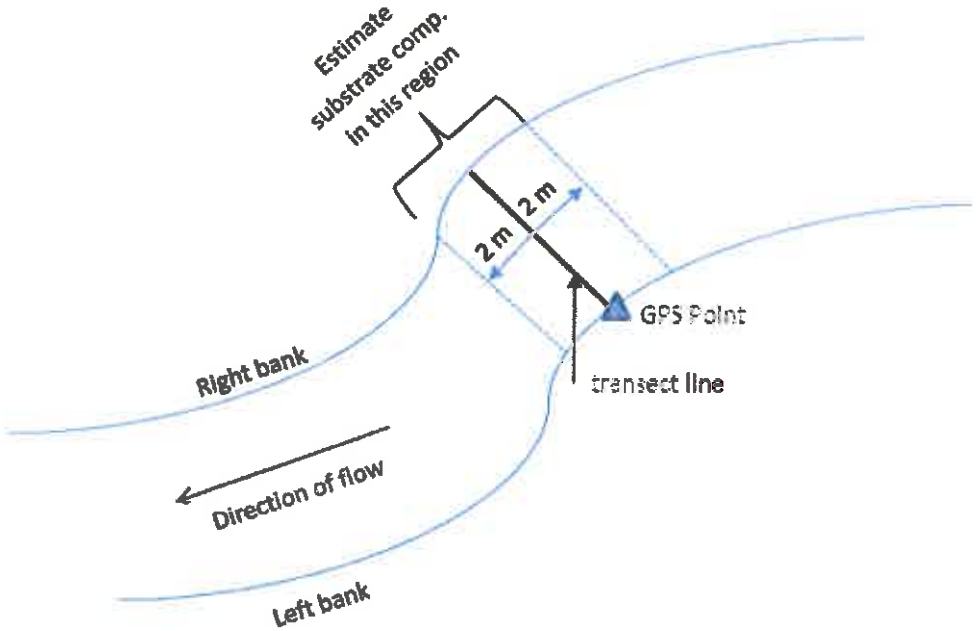
Driving Directions:
Take 91 West to the 15 North.
Exit 6th Street and turn right onto 6th Street.
Turn left onto Pedley Avenue.
Car #1 should park at the end of Pedley Avenue.

After parking first car, turn around and take Pedley Ave back to 6th Street and turn right.
Enter the 15 North.
Exit Limonite Avenue and turn right onto Limonite Avenue.
Turn right onto Ridgeview Avenue and left into Horse Park on the left side of street.
Car #2 should park upstream at the Horse Park off of Ridgeview Avenue.
Parking the cars as directed, will ensure you are walking downstream.

Data Collection Instructions: Locate GPS points shown on the attached Riverwalk Points Map. If the GPS Point is not in the wetted river, walk to the closest location that is in the wetted river and record on your data sheet the actual GPS location on the left bank (note: the left bank is on your left when you face downstream). If there is more than one wetted river channel, record each channel's left bank GPS location.

Here are some helpful tips:

- Please record all measurements using the metric system;
- Set up your transect lines perpendicular to the river;
- Estimate substrate components within a 2-m band on either side of the transect; make sure all substrate components add up to 100%;
- Don't forget to take photos



Flip For More Directions

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

When You Are Done:
Return to SAWPA at 11615 Sterling Ave. in Riverside to check equipment in, submit datasheets and grab lunch. Zyanya Blancas will contact your group's lead photographer to instruct them on how your group submits all site photos. Please call or text Zyanya when you are heading back or are still in the field past 1pm.

Driving Back to SAWPA:
From the Car #2 location, take Ridgeview Ave. towards Limonite Ave
Turn left onto Limonite Ave
Left to merge onto 15 South
Merge onto 91 East
Exit onto Pierce St.
Right onto Pierce Street.
Left onto Sterling Ave.

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 83 **Date** 10-12-16
Target UTM: **451873** **3758631**
Observers (writer/other) Alec Mang / Cynthia Chavez, Natalia Dosh

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	451869 3758651		
	Channel position (L/C/R*)	R		
	Width of Channel (m)	22 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	35 cm R		
	Depth @ Left Edge (cm) (~4" from bank edge)	16.5 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	7.5 cm		
	% Veg- Left Bank*	95 %		
	% Veg- Right Bank*	100 %		
	% Canopy Over Transect Band	30%		
Should total 100%	Substrate % mud/silt	5 %		
	Substrate % sand	95 %		
	Substrate % gravel			
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)	1308		
	Photo Downstream (time & #)	1309		
	Photo Left Bank* (time & #)	1310		
	Photo Right Bank* (time & #)	1311		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

2.

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 84 **Date** 10-12-16
Target UTM: **451638** **3758497**
Observers (writer/other) Alec Maag

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0451599 3758510		
	Channel position (L/C/R*)	R		
	Width of Channel (m)	39 M		
	Max Depth (cm) & Location in Channel (L/C/R*)	43 cm R		
	Depth @ Left Edge (cm) (~4" from bank edge)	17cM		
	Depth @ Right Edge (cm) (~4" from bank edge)	27 cM		
	% Veg- Left Bank*	85 %		
	% Veg- Right Bank*	100 %		
	% Canopy Over Transect Band	21 %		
Should total 100%	Substrate % mud/silt	15 %		
	Substrate % sand	85%		
	Substrate % gravel			
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)			
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 85 **Date** 10-12-16
Target UTM: **451443** **3758279**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0451461 3758281		
	Channel position (L/C/R*)	R		
	Width of Channel (m)	44.8		
44.8 36.8 0	Max Depth (cm) & Location in Channel (L/C/R*)	36 cm		
	Depth @ Left Edge (cm) (~4" from bank edge)	9 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	10 cm		
6m	% Veg- Left Bank*	100 %		
14A 8M	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	31 %		
Should total 100%	Substrate % mud/silt	2 %		
	Substrate % sand	~~3~~ 97%		
	Substrate % gravel	~~3~~ 1%		
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)			
1M NOA	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 86 **Date**_____
Target UTM: **451303** **3758016**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0451297 3758016		
Channel position (L/C/R*)	C		
Width of Channel (m)	48 m		
Max Depth (cm) & Location in Channel (L/C/R*)	25 cm R		
Depth @ Left Edge (cm) (~4" from bank edge)	11 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	7 cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100 %		
% Canopy Over Transect Band	35%		
Substrate % mud/silt	0%		
Substrate % sand	100 %		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

Should total 100%

6m
38 48 6m

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 87 **Date** 10-12-16
Target UTM: **451176** **3757746**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0451163 3757753		
Channel position (L/C/R*)	C		
Width of Channel (m)	46m		
Max Depth (cm) & Location in Channel (L/C/R*)	22cm R		
Depth @ Left Edge (cm) (~4" from bank edge)	12cm		
Depth @ Right Edge (cm) (~4" from bank edge)	6m		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	17%		
Substrate % mud/silt	1%		
Substrate % sand	99%		
Substrate % gravel	~~0%~~		
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

Should total 100%

6m
2m

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 88 **Date** 10-12-16
Target UTM: **451034** **3757486**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0451032 3757480		
Channel position (L/C/R*)	L		
Width of Channel (m)	43 m		
Max Depth (cm) & Location in Channel (L/C/R*)	29cm - R		
Depth @ Left Edge (cm) (~4" from bank edge)	9cm		
Depth @ Right Edge (cm) (~4" from bank edge)	6cm		
5.5 % Veg- Left Bank*	5%		
2m % Veg- Right Bank*	100%		
% Canopy Over Transect Band	17%		
Should total 100% Substrate % mud/silt	3%		
Substrate % sand	97%		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 89 **Date** 10-12-16
Target UTM: **450811** **3757315**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0450809 3757322		
Channel position (L/C/R*)	L		
Width of Channel (m)	33 m		
Max Depth (cm) & Location in Channel (L/C/R*)	31 - R		
Depth @ Left Edge (cm) (~4" from bank edge)	27cm		
Depth @ Right Edge (cm) (~4" from bank edge)	18 cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	23%		
Substrate % mud/silt			
Substrate % sand	100%		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)	/		
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

4m
3.6

Should total 100%

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Riverwalk 2016

Additional Information Datasheet

Please use this form to note any gravel patches measuring a minimum of roughly 3mx3m you find OUTSIDE of your point locations.

Group: 10 **Date:** 10-12-16

Observers: Cynthia Chavez, Natalia Doshi, Alec Mang

Give or send all data sheets and photos to Zyanya Blancas (951) 354-4220. Address: ATTN: Zyanya Blancas, Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, CA 92503. Email: zblancas@sawpa.org

LOCATION 1 SAS 05

GPS coordinates in UTM (at left bank)	0451451 3758781
Gravel length (m)	4
Gravel width (m)	0.5
Channel position (L/R/C)	R
Max water depth (cm)	36 cm
Algae present?	NO
Photo upstream #	1316
Notes	

LOCATION 2

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 3

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 4

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 5

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 6

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

Left bank: when facing downstream

L/R/C: Left/Right/Center when facing downstream

LOCATION 7

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 8

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 9

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 10

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 11

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

LOCATION 12

GPS coordinates in UTM (at left bank)	
Gravel length (m)	
Gravel width (m)	
Channel position (L/R/C)	
Max water depth (cm)	
Algae present?	
Photo upstream #	
Notes	

Left bank: when facing downstream
L/R/C: Left/Right/Center when facing downstream

Group 11: Points 90-98

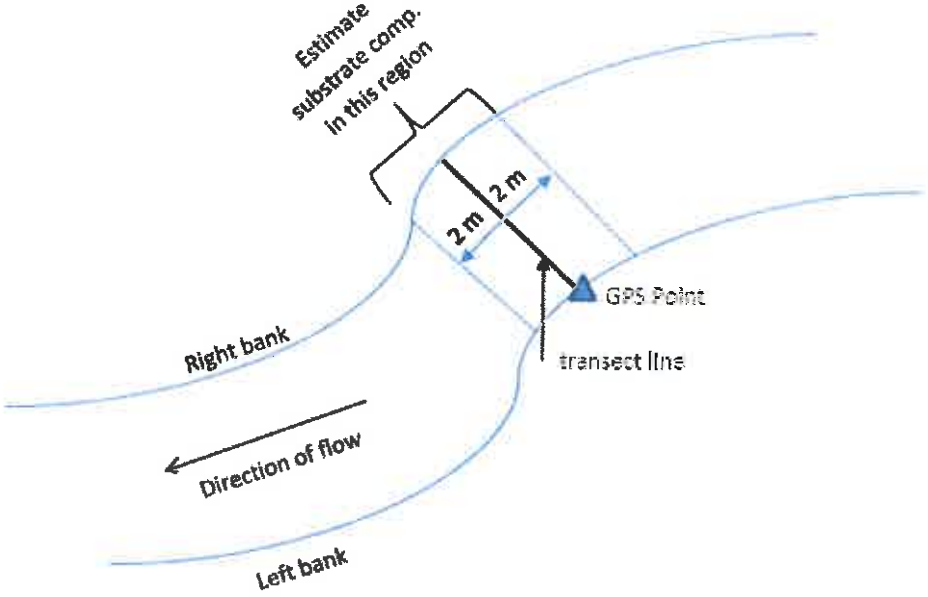
Driving Directions:
Take 91 West to the 15 North.
Exit 6th Street and turn right onto 6th Street.
Turn left onto Sierra Avenue.
Turn left onto Detroit Street.
Turn right on Old Hamner Road.
Car #1 should park at the end of Old Hamner Road.

After parking first car, from Old Hamner Road turn left onto Detroit Street.
Turn left onto Valley View Avenue.
Turn right onto River Drive.
Turn left onto Pedley Avenue.
Car #2 should park upstream at the end of Pedley Avenue.
Parking the cars as directed, will ensure you are walking downstream.

Data Collection Instructions: Locate GPS points shown on the attached Riverwalk Points Map. If the GPS Point is not in the wetted river, walk to the closest location that is in the wetted river and record on your data sheet the actual GPS location on the left bank (note: the left bank is on your left when you face downstream). If there is more than one wetted river channel, record each channel's left bank GPS location.

Here are some helpful tips:

- Please record all measurements using the metric system;
- Set up your transect lines perpendicular to the river;
- Estimate substrate components within a 2-m band on either side of the transect; make sure all substrate components add up to 100%;
- Don't forget to take photos



Flip For More Directions

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 90 **Date** 10/6/2016
Target UTM: **450524** 3757255
Observers (writer/other) Najah / Ryan / Jacob

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	450514 3757268		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	36m		
	Max Depth (cm) & Location in Channel (L/C/R*)	11 L / 12 C / 33 R		
	Depth @ Left Edge (cm) (~4" from bank edge)	7.4		
	Depth @ Right Edge (cm) (~4" from bank edge)	22		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	Ø		
Should total 100%	Substrate % mud/silt	none		
	Substrate % sand	100		
	Substrate % gravel	none		
	Substrate % cobble	none		
	Substrate % boulder	none		
	Photo Upstream (time & #)	10 Am, 1		
	Photo Downstream (time & #)	10:01 m/2		
	Photo Left Bank* (time & #)	✓3		
	Photo Right Bank* (time & #)	✓ 4		
	Photo other (describe)	none		
	Notes (e.g. Islands, Obstructions)	None		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 91 **Date** 10-6-16
Target UTM: **450228** **3757211**
Observers (writer/other) NLT

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	450233 3757215	450229 3757250	
Channel position (L/C/R*)	L	R	
Width of Channel (m)	22	16	
Max Depth (cm) & Location in Channel (L/C/R*)	19/27/20	/24/16	
Depth @ Left Edge (cm) (~4" from bank edge)	6	5	
Depth @ Right Edge (cm) (~4" from bank edge)	20	17	
% Veg- Left Bank*	100	100	
% Veg- Right Bank*	100	100	
% Canopy Over Transect Band	5	5	
Should total 100% — Substrate % mud/silt			
Substrate % sand	100	100	
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	10:15 5	10:21 9	
Photo Downstream (time & #)	6	10	
Photo Left Bank* (time & #)	7	11	
Photo Right Bank* (time & #)	8	12	
Photo other (describe)	—		
Notes (e.g. Islands, Obstructions)	Island in middle of River		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 92 **Date** 10-6-16
Target UTM: **449957** **3757085**
Observers (writer/other) NRJ

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	449949 3757105		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	39.5		
	Max Depth (cm) & Location in Channel (L/C/R*)	30 C		
	Depth @ Left Edge (cm) (~4" from bank edge)	7		
	Depth @ Right Edge (cm) (~4" from bank edge)	16		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	5		
Should total 100%	Substrate % mud/silt			
	Substrate % sand	100		
	Substrate % gravel			
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)	10:39 13		
	Photo Downstream (time & #)	14		
	Photo Left Bank* (time & #)	15		
	Photo Right Bank* (time & #)	16		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 93 **Date** 10-6-16
Target UTM: **449781** **3756859**
Observers (writer/other) NRS

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0449764 3756865		
Channel position (L/C/R*)	C		
Width of Channel (m)	31		
Max Depth (cm) & Location in Channel (L/C/R*)	41 L		
Depth @ Left Edge (cm) (~4" from bank edge)	13		
Depth @ Right Edge (cm) (~4" from bank edge)	12		
% Veg- Left Bank*	100		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	5		
Substrate % mud/silt	5		
Substrate % sand	95		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	10:58 18		
Photo Downstream (time & #)	19		
Photo Left Bank* (time & #)	20		
Photo Right Bank* (time & #)	21		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

Should total 100%

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 94 **Date** 10-6-16
Target UTM: **449669** **3756630**
Observers (writer/other) MRS

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	Target		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	19		
	Max Depth (cm) & Location in Channel (L/C/R*)	45 L		
	Depth @ Left Edge (cm) (~4" from bank edge)	25		
	Depth @ Right Edge (cm) (~4" from bank edge)	14		
	% Veg- Left Bank*	5		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	2		
Should total 100%	Substrate % mud/silt			
	Substrate % sand	100		
	Substrate % gravel			
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)	11:15 22		
	Photo Downstream (time & #)	23		
	Photo Left Bank* (time & #)	24		
	Photo Right Bank* (time & #)	25		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 95 **Date** 10-6-16
Target UTM: 449377 3756566
Observers (writer/other) ~ R J

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	449377 3756570		
Channel position (L/C/R*)	C		
Width of Channel (m)	32		
Max Depth (cm) & Location in Channel (L/C/R*)	42 L		
Depth @ Left Edge (cm) (~4" from bank edge)	15		
Depth @ Right Edge (cm) (~4" from bank edge)	~~18~~ 20		
% Veg- Left Bank*	100		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	5		
Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	1130 26		
Photo Downstream (time & #)	| 27		
Photo Left Bank* (time & #)	| 28		
Photo Right Bank* (time & #)	| 29		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	—		

(Substrate rows: Should total 100%)

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 96 **Date** 10-6-16
Target UTM: **449118** **3756431**
Observers (writer/other) NRS

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)			
	Channel position (L/C/R*)	C		
	Width of Channel (m)	13		
	Max Depth (cm) & Location in Channel (L/C/R*)	~~30~~ ~~48~~ 49 L E		
	Depth @ Left Edge (cm) (~4" from bank edge)	33		
	Depth @ Right Edge (cm) (~4" from bank edge)	30		
	% Veg- Left Bank*	5		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	5		
Should total 100%	Substrate % mud/silt			
	Substrate % sand	100		
	Substrate % gravel			
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)	11:40 30		
	Photo Downstream (time & #)	31		
	Photo Left Bank* (time & #)	32		
	Photo Right Bank* (time & #)	33		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 97 **Date** 10-6-16
Target UTM: **448822** **3756408**
Observers (writer/other) NRS

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	Tests		
Channel position (L/C/R*)			
Width of Channel (m)	27		
Max Depth (cm) & Location in Channel (L/C/R*)	35 R		
Depth @ Left Edge (cm) (~4" from bank edge)	9		
Depth @ Right Edge (cm) (~4" from bank edge)	24		
% Veg- Left Bank*	100		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	10		
Should total 100% — Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	11 55 34		
Photo Downstream (time & #)	35		
Photo Left Bank* (time & #)	36		
Photo Right Bank* (time & #)	37		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 98 **Date** 10-6-16
Target UTM: 448534 3756384
Observers (writer/other) NRS

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	Target		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	26		
	Max Depth (cm) & Location in Channel (L/C/R*)	34 R		
	Depth @ Left Edge (cm) (~4" from bank edge)	16		
	Depth @ Right Edge (cm) (~4" from bank edge)	27		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	95		
	% Canopy Over Transect Band	10		
Should total 100%	Substrate % mud/silt			
	Substrate % sand	100		
	Substrate % gravel			
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)	1210 39		
	Photo Downstream (time & #)	40		
	Photo Left Bank* (time & #)	41		
	Photo Right Bank* (time & #)	42		
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	—		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Group 12

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 99 **Date** 10/6/16
Target UTM: **448253** **3756327**
Observers (writer/other) MAP/CM/AM/Greg Kahler/Brittany Kipp

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	448252/ 3756320		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	23.5m		
	Max Depth (cm) & Location in Channel (L/C/R*)	35cm / L		
	Depth @ Left Edge (cm) (~4" from bank edge)	25cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	2.5cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	9%		
Should total 100%	Substrate % mud/silt	8%		
	Substrate % sand	92%		
	Substrate % gravel	—		
	Substrate % cobble	—		
	Substrate % boulder	—		
	Photo Upstream (time & #)			
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 100 **Date** 10/6/16
Target UTM: **447963** **3756361**
Observers (writer/other) MA/CM/AM/GK/JL

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	447963, 3756361		
Channel position (L/C/R*)	C		
Width of Channel (m)	38.75cm		
Max Depth (cm) & Location in Channel (L/C/R*)	35 cm L		
Depth @ Left Edge (cm) (~4" from bank edge)	5cm		
Depth @ Right Edge (cm) (~4" from bank edge)	4.5cm		
% Veg- Left Bank*	100%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	10%		
Should total 100% — Substrate % mud/silt	1%		
Substrate % sand	99%		
Substrate % gravel	—		
Substrate % cobble	—		
Substrate % boulder	—		
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 101 **Date** 10/6/16
Target UTM: **447680** **3756377**
Observers (writer/other) MA/CM/AM/GK/DA

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	447674 3756376		
	Channel position (L/C/R*)			
	Width of Channel (m)	41.5 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	39.0 cm L		
	Depth @ Left Edge (cm) (~4" from bank edge)	10 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	9 cm		
	% Veg- Left Bank*	80%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	11%		
Should total 100%	Substrate % mud/silt	5%		
	Substrate % sand	95%		
	Substrate % gravel	0		
	Substrate % cobble	0		
	Substrate % boulder	0		
	Photo Upstream (time & #)	10:52 AM		
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 102 **Date** 10/6/16
Target UTM: **447620** **3756088**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	447601 / 3756097		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	29m		
	Max Depth (cm) & Location in Channel (L/C/R*)	31cm / L		
	Depth @ Left Edge (cm) (~4" from bank edge)	7cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	11cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	24%		
Should total 100%	Substrate % mud/silt	10%		
	Substrate % sand	90%		
	Substrate % gravel	—		
	Substrate % cobble	—		
	Substrate % boulder	—		
	Photo Upstream (time & #)			
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 103 **Date** 10·6·16
Target UTM: **447481** **3755829**
Observers (writer/other) CM,

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	447418 3755930		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	28.7		
	Max Depth (cm) & Location in Channel (L/C/R*)	42 cm C		
	Depth @ Left Edge (cm) (~4" from bank edge)	4.5 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	5.0 cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	20%		
Should total 100%	Substrate % mud/silt	10%		
	Substrate % sand	90%		
	Substrate % gravel	—		
	Substrate % cobble	—		
	Substrate % boulder	—		
	Photo Upstream (time & #)	11:20 AM		
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 104 **Date** 10-6-16
Target UTM: **447240** **3755663**
Observers (writer/other) MAP/CM/AM/GK

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	447249 / 3755662		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	40.9m		
	Max Depth (cm) & Location in Channel (L/C/R*)	32cm / C		
	Depth @ Left Edge (cm) (~4" from bank edge)	3.5cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	7cm		
	% Veg- Left Bank*	100%		
	% Veg- Right Bank*	100%		
	% Canopy Over Transect Band	20%		
Should total 100%	Substrate % mud/silt	90%		
	Substrate % sand	9.9%		
	Substrate % gravel	—		
	Substrate % cobble	—		
	Substrate % boulder	—		
	Photo Upstream (time & #)	11:40AM		
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 105 **Date** 10-6-16
Target UTM: **446983** **3755713**
Observers (writer/other) CM/MP/AM/GC

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	446985 / 3755715		
Channel position (L/C/R*)	L		
Width of Channel (m)	35.2m		
Max Depth (cm) & Location in Channel (L/C/R*)	31 cm C		
Depth @ Left Edge (cm) (~4" from bank edge)	14cm		
Depth @ Right Edge (cm) (~4" from bank edge)	7cm		
% Veg- Left Bank*	90%		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	25%		
Substrate % mud/silt	11%		
Substrate % sand	89%		
Substrate % gravel	—		
Substrate % cobble	—		
Substrate % boulder	—		
Photo Upstream (time & #)	11:56AM		
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

Should total 100%

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 106 **Date** 10-6-16
Target UTM: **446735** **3755827**
Observers (writer/other)_____

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	446740 3754931		
	Channel position (L/C/R*)	L		
	Width of Channel (m)	22.6 m		
	Max Depth (cm) & Location in Channel (L/C/R*)	36 cm R		
	Depth @ Left Edge (cm) (~4" from bank edge)	29 cm		
	Depth @ Right Edge (cm) (~4" from bank edge)	2 cm.		
	% Veg- Left Bank*	5%.		
	% Veg- Right Bank*	100%.		
	% Canopy Over Transect Band	33%.		
Should total 100%	Substrate % mud/silt	11%.		
	Substrate % sand	89%.		
	Substrate % gravel	—		
	Substrate % cobble	—		
	Substrate % boulder	—		
	Photo Upstream (time & #)	12:15 PM		
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 107 **Date** 10-6-16
Target UTM: **446461** **3755771**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	446465 3755722		
Channel position (L/C/R*)	C		
Width of Channel (m)	29.2		
Max Depth (cm) & Location in Channel (L/C/R*)	27 R		
Depth @ Left Edge (cm) (~4" from bank edge)	5cm		
Depth @ Right Edge (cm) (~4" from bank edge)	6 cm		
% Veg- Left Bank*	3%		
% Veg- Right Bank*	15%		
% Canopy Over Transect Band	3%		
Should total 100% — Substrate % mud/silt	2%		
Substrate % sand	98%		
Substrate % gravel	—		
Substrate % cobble	—		
Substrate % boulder	—		
Photo Upstream (time & #)	12:30		
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 108 **Date** 10-6-16
Target UTM: **446169** **3755831**
Observers (writer/other)_____

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	446 172 3755840		
Channel position (L/C/R*)	R		
Width of Channel (m)	14.5 m		
Max Depth (cm) & Location in Channel (L/C/R*)	36/C		
Depth @ Left Edge (cm) (~4" from bank edge)	7 cm		
Depth @ Right Edge (cm) (~4" from bank edge)	32 cm		
% Veg- Left Bank*	90 %		
% Veg- Right Bank*	100%		
% Canopy Over Transect Band	29%		
Should total 100%: Substrate % mud/silt	100%		
Substrate % sand			
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)	12:50 Pm		
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

Group 13: Points 109-118

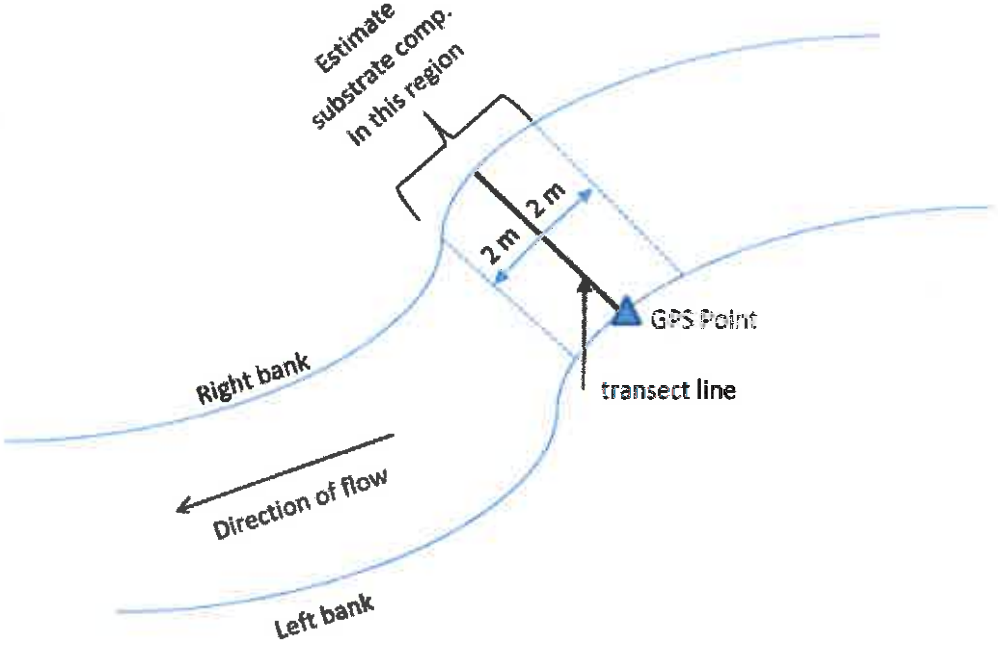
Driving Directions:
Take 91 West and exit Main Street.
Turn right onto Main Street.
Turn left onto River Road.
Car #1 should park at the River Road bridge where it crosses the river.

After parking first car, return to River Road. River Road turns into Archibald Ave.
Turn right Chandler Street.
Turn right Tisdale Street.
Car #2 should park upstream at the end of Tisdale Street.
Parking the cars as directed, will ensure you are walking downstream.

Data Collection Instructions: Locate GPS points shown on the attached Riverwalk Points Map. If the GPS Point is not in the wetted river, walk to the closest location that is in the wetted river and record on your data sheet the actual GPS location on the left bank (note: the left bank is on your left when you face downstream). If there is more than one wetted river channel, record each channel's left bank GPS location.

Here are some helpful tips:

- Please record all measurements using the metric system;
- Set up your transect lines perpendicular to the river;
- Estimate substrate components within a 2-m band on either side of the transect; make sure all substrate components add up to 100%;
- Don't forget to take photos



Flip For More Directions

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

When You Are Done:
Return to SAWPA at 11615 Sterling Ave. in Riverside to check equipment in, submit datasheets and grab lunch. Zyanya Blancas will contact your group's lead photographer to instruct them on how your group submits all site photos. Please call or text Zyanya when you are heading back or are still in the field past 1pm.

Driving Back to SAWPA:
From the Car #2 location, start driving on Tisdale St. onto Chandler St.
Turn left onto Chandler St
Left again onto Archibald Ave.
Archibald Ave. turns into River Rd.
Right onto N Main St.
Take left onto 91 East towards Riverside.
Exit onto Pierce St.
Right onto Pierce Street.
Left onto Sterling Ave.

Technical Questions: Call Bonnie Johnson at (951) 757-0782 or Mari Archer at (951) 966-1602.
Coordination/Logistical Issues: Call Zyanya Blancas at (951) 522-0789.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

(1)

Transect Name: SAS 109 **Date**_____
Target UTM: **445940** **3755674**
Observers (writer/other)_____

3755 084

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0445936 3755684		
Channel position (L/C/R*)	R		
Width of Channel (m)	21.25		
Max Depth (cm) & Location in Channel (L/C/R*)	61 R		
Depth @ Left Edge (cm) (~4" from bank edge)	17		
Depth @ Right Edge (cm) (~4" from bank edge)	14		
% Veg- Left Bank*	100		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	30		
Should total 100% — Substrate % mud/silt	5		
Substrate % sand	95		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #) 1			
Photo Downstream (time & #) 2			
Photo Left Bank* (time & #) 3			
Photo Right Bank* (time & #) 4			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	NO		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

(3)

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 111 **Date**_____
Target UTM: **445935** **3755100**
Observers (writer/other) Both

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0445935 3755093		
Channel position (L/C/R*)	C		
Width of Channel (m)	20.3		
Max Depth (cm) & Location in Channel (L/C/R*)	50 R		
Depth @ Left Edge (cm) (~4" from bank edge)	13		
Depth @ Right Edge (cm) (~4" from bank edge)	13		
% Veg- Left Bank*	90		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	16		
Should total 100% — Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	NO FLOW		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 112 **Date**_____
Target UTM: **445723** **3754896**
Observers (writer/other) Ball

	OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
	Actual GPS coordinates in UTM (@ Left Bank*)	0445728 3754895		
	Channel position (L/C/R*)	C		
	Width of Channel (m)	23.3		
	Max Depth (cm) & Location in Channel (L/C/R*)	36 C		
	Depth @ Left Edge (cm) (~4" from bank edge)	5		
	Depth @ Right Edge (cm) (~4" from bank edge)	31		
	% Veg- Left Bank*	100		
	% Veg- Right Bank*	100		
	% Canopy Over Transect Band	49		
Should total 100%	Substrate % mud/silt	31		
	Substrate % sand	69		
	Substrate % gravel			
	Substrate % cobble			
	Substrate % boulder			
	Photo Upstream (time & #)			
	Photo Downstream (time & #)			
	Photo Left Bank* (time & #)			
	Photo Right Bank* (time & #)			
	Photo other (describe)			
	Notes (e.g. Islands, Obstructions)	NO AROUND		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

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2016 River Walk
Santa Ana River Sucker Habitat Evaluation

Transect Name: SAS 113 **Date**_____
Target UTM: **445456** **3754961**
Observers (writer/other) Both

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0445453 3754971		
Channel position (L/C/R*)	R		
Width of Channel (m)	31.5		
Max Depth (cm) & Location in Channel (L/C/R*)	26		
Depth @ Left Edge (cm) (~4" from bank edge)	12		
Depth @ Right Edge (cm) (~4" from bank edge)	14		
% Veg- Left Bank*	100		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	38		
Should total 100% — Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Around Present 50%		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

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Transect Name: SAS 114 **Date**_____
Target UTM: **445308** **3754771**
Observers (writer/other) Bott

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0445289 3754768		
Channel position (L/C/R*)	R		
Width of Channel (m)	32.6		
Max Depth (cm) & Location in Channel (L/C/R*)	39		
Depth @ Left Edge (cm) (~4" from bank edge)	5		
Depth @ Right Edge (cm) (~4" from bank edge)	37		
% Veg- Left Bank*	100		
% Veg- Right Bank*	0		
% Canopy Over Transect Band	31		
Should total 100% — Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Arundo minimal		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

7

Transect Name: SAS 115 **Date**_____
Target UTM: **445271** **3754475**
Observers (writer/other) Bott

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	0445267 3754476		
Channel position (L/C/R*)	C		
Width of Channel (m)	34.4		
Max Depth (cm) & Location in Channel (L/C/R*)	31		
Depth @ Left Edge (cm) (~4" from bank edge)	10		
Depth @ Right Edge (cm) (~4" from bank edge)	11		
% Veg- Left Bank*	100		
% Veg- Right Bank*			
% Canopy Over Transect Band	37		
Should total 100%: Substrate % mud/silt			
Substrate % sand	~~100~~ 99		
Substrate % gravel	1		
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Arundo		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

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Transect Name: SAS 116 **Date**_____
Target UTM: **445069** **3754300**
Observers (writer/other) ~~BOH~~

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	~~0445067~~ 3754300		
Channel position (L/C/R*)	C		
Width of Channel (m)	28.8		
Max Depth (cm) & Location in Channel (L/C/R*)	36		
Depth @ Left Edge (cm) (~4" from bank edge)	16		
Depth @ Right Edge (cm) (~4" from bank edge)	7		
% Veg- Left Bank*	100		
% Veg- Right Bank*	70		
% Canopy Over Transect Band	15		
Should total 100% — Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	NO Arundo		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

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Transect Name: SAS 117 **Date**_____
Target UTM: **444878** **3754208**
Observers (writer/other) Bat

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	444 681 3754 209		
Channel position (L/C/R*)	R		
Width of Channel (m)	25.1		
Max Depth (cm) & Location in Channel (L/C/R*)	46		
Depth @ Left Edge (cm) (~4" from bank edge)	16		
Depth @ Right Edge (cm) (~4" from bank edge)	4		
% Veg- Left Bank*	85		
% Veg- Right Bank*	80		
% Canopy Over Transect Band	44		
Should total 100% — Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	NA Rewild		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.

2016 River Walk
Santa Ana River Sucker Habitat Evaluation

10

Transect Name: SAS 118 **Date**_____
Target UTM: 444830 3753915
Observers (writer/other) [redacted], Bonnie Johnson, Dick Zembal & Natalia Doshi

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ Left Bank*)	444 791 3753898		
Channel position (L/C/R*)	R		
Width of Channel (m)	23.8		
Max Depth (cm) & Location in Channel (L/C/R*)	46		
Depth @ Left Edge (cm) (~4" from bank edge)	5		
Depth @ Right Edge (cm) (~4" from bank edge)	22		
% Veg- Left Bank*	100		
% Veg- Right Bank*	100		
% Canopy Over Transect Band	27		
Should total 100%: Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo Upstream (time & #)			
Photo Downstream (time & #)			
Photo Left Bank* (time & #)			
Photo Right Bank* (time & #)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	NO Arundo		

*L/C/R = Left/Center/Right. Face downstream to determine left and right banks.