

## Group1

**Transects: 9 through 17.** The first car should park on Riverside Ave. where the street crosses the river. The second car should park upstream, off of Agua Mansa Road in the turn out next to the drainage right before Dunn Ranch Road.

Directions: Take 91 East to 60 West. Exit Main Street and turn right. Main Street turns into Riverside Ave (park a car here where it street and river cross). Turn right onto Agua Mansa (second car here).

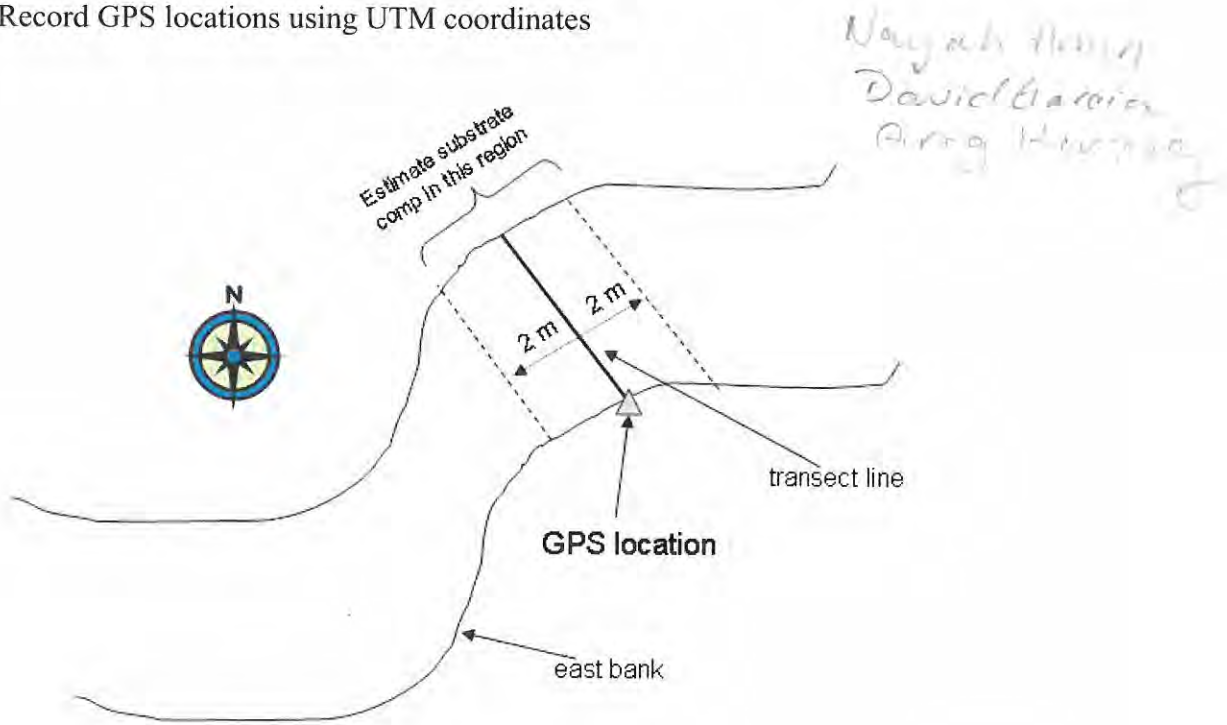
Please use your GPS unit to guide you to each waypoint.

If the waypoint is not in the river, walk to the closest location that is in the river and record on your data sheet the actual GPS location on the east bank.

If there is more than one channel, record on your data sheet the GPS location on the east bank of each channel.

Based on the data collected in the previous River Walk, here are some tips:

- Please record all measurements using the metric system; there should be enough transect tapes/meter sticks with metric units for each group.
- 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%
- Record GPS locations using UTM coordinates



If you have any problems, please call ~~Dunn Ranch Road~~ ~~951-757-0782~~, Bonnie Johnson 951-757-0782 or Talula Barbee 909-322-3187 or 951-212-8736

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 17      **Date** 16/17/12  
**Target UTM:**      466498      3765072  
**Observers (writer/other)** Greg/David/Nagah  
**General Location** SAS 17

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0466556 3765076		
Channel position	East/middle of river		
Width of Channel	9m		
Max Depth & location in channel	35 middle cm		
Depth Edge East (~4" from edge)	12cm		
Depth Edge West (~4" from edge)	42cm deeper		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt			
Substrate % sand	99%		
Substrate % gravel	1%		
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	153, 151		
Photo West Bank (time & #)	152, 150		
Photo upstream (time & #)	153, 152		
Photo downstream (time & #)	151, 150		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 14      **Date** 10/17/12  
**Target UTM:** 466960      3765802  
**Observers (writer/other)** Greg/ David/ Nayah  
**General Location** SAS 15

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

10:52

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0466954 3765804		
Channel position	East		
Width of Channel	11m 15cm		
Max Depth & location in channel	32 cm middle		
Depth Edge East (~4" from edge)	15 cm		
Depth Edge West (~4" from edge)	10		
Bank East %Veg Overhand	100		
Bank West %Veg Overhang	100		
Substrate % mud/silt	0%		
Substrate % sand	15%		
Substrate % gravel	70%		
Substrate % cobble	15%		
Substrate % boulder	0%		
Photo East Bank (time & #)	168 E/N		
Photo West Bank (time & #)	167 W/W		
Photo upstream (time & #)	167, 168		
Photo downstream (time & #)	166, 165		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

sand; gravel; cobble  
 some sand; sand



# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 15      Date 10/17/12  
 Target UTM:      466734      3765616  
 Observers (writer/other) Greg / David / Najah  
 General Location SAS 15, next levee

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

11:00

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0466962 3765610	0466898 3765604	
Channel position	East	East/middle	
Width of Channel	6m 40cm	4m 7cm	
Max Depth & location in channel	42 middle/W	15 middle	
Depth Edge East (~4" from edge)	9cm	10cm	
Depth Edge West (~4" from edge)	11 cm	6cm	
Bank East %Veg Overhand	95%	100%	
Bank West %Veg Overhang	5%	100%	
Substrate % mud/silt			
Substrate % sand	43.5%	38%	
Substrate % gravel	50%	30%	
Substrate % cobble	15%	30%	
Substrate % boulder		2%	
Photo East Bank (time & #)	164	160, 158	
Photo West Bank (time & #)	165	159, 157	
Photo upstream (time & #)	163	160, 159	
Photo downstream (time & #)	162 down E 161 down W	158, 157	
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Fish visible birds	Fish visible	

cobble/gravel      sand      gravel



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 16      **Date** 10/17/17  
**Target UTM:**      466598      3765358  
**Observers (writer/other)** Greg/David/Nayah  
**General Location** SAS 16

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	6466771 3765369		
Channel position	East, in river		
Width of Channel	7m 80cm		
Max Depth & location in channel	35 middle cm		
Depth Edge East (~4" from edge)	14cm		
Depth Edge West (~4" from edge)	5cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt			
Substrate % sand	19%		
Substrate % gravel	80%		
Substrate % cobble	1%		
Substrate % boulder			
Photo East Bank (time & #)	156, 154		
Photo West Bank (time & #)	155, 153		
Photo upstream (time & #)	155, 156		
Photo downstream (time & #)	154, 153		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			


  
 Gravel/sand      Gravel w/ sand

# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 13      **Date** 10/17/12  
**Target UTM:**      **467182**      **3765997**  
**Observers (writer/other)** Greg / David / Najah  
**General Location** SAS 13

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

10:44

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0467023 3766013		
Channel position	East		
Width of Channel	12m 20cm		
Max Depth & location in channel	25 cm middle		
Depth Edge East (~4" from edge)	16 cm		
Depth Edge West (~4" from edge)	15 cm		
Bank East %Veg Overhand	100 %		
Bank West %Veg Overhang	100 %		
Substrate % mud/silt			
Substrate % sand	45%		
Substrate % gravel	45%		
Substrate % cobble	10%		
Substrate % boulder			
Photo East Bank (time & #)	172		
Photo West Bank (time & #)	171		
Photo upstream (time & #)			
Photo downstream (time & #)	170 west 169 east		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 9

**Date** 10/17/12

**Target UTM:** 467563

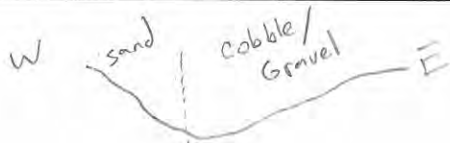
3767030

**Observers (writer/other)** David, Nasah, Greg (writer)

**General Location** SAS 9, new coords.

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0467362 3767023		
Channel position	East		
Width of Channel	3m / 60cm		
Max Depth & location in channel	133 cm		
Depth Edge East (~4" from edge)	9 cm		
Depth Edge West (~4" from edge)	13 cm		
Bank East %Veg Overhand	100		
Bank West %Veg Overhang	100		
Substrate % mud/silt	0%		
Substrate % sand	10%		
Substrate % gravel	20%		
Substrate % cobble	70%		
Substrate % boulder			
Photo East Bank (time & #)	187 10:03		
Photo West Bank (time & #)	186		
Photo upstream (time & #)	188		
Photo downstream (time & #)	185		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Fish visible		





# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 10                      Date 10/17

Target UTM:            467395            3766817

Observers (writer/other) Greg/ David / Nayah

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

10:13

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0467320 3766818		
Channel position			
Width of Channel	6m 10cm		
Max Depth & location in channel	27 cm / middle		
Depth Edge East (~4" from edge)	14 cm		
Depth Edge West (~4" from edge)	8.5 cm		
Bank East %Veg Overhand	20%		
Bank West %Veg Overhang	5%		
Substrate % mud/silt			
Substrate % sand	80%		
Substrate % gravel	5%		
Substrate % cobble	15%		
Substrate % boulder			
Photo East Bank (time & #)	185		
Photo West Bank (time & #)	184		
Photo upstream (time & #)	183		
Photo downstream (time & #)	181		
Photo other (describe)	182 N/W		
Photo other (describe)	180 - Tire tracks crossing river		
Notes (e.g. Islands, Obstructions)	Fish visible		



# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 11                      **Date** 10/17  
**Target UTM:**            467246                      3766581  
**Observers (writer/other)** Greg / David / Najah  
**General Location** SAS 11

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

10:23

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0467243 3766584 East		
Channel position	East		
Width of Channel	9m 30cm		
Max Depth & location in channel	81cm East / middle		
Depth Edge East (~4" from edge)	7cm		
Depth Edge West (~4" from edge)	6.5cm		
Bank East %Veg Overhand	95%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	0		
Substrate % sand	10		
Substrate % gravel	15		
Substrate % cobble	75		
Substrate % boulder	0		
Photo East Bank (time & #)	176		
Photo West Bank (time & #)	177		
Photo upstream (time & #)	178		
Photo downstream (time & #)	176 downstream / east		
Photo other (describe)	178 N/W		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	lots of algae, Flowing ~ 70-80cfs		

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 12      **Date** 10/17/12  
**Target UTM:**      467146      3766296  
**Observers (writer/other)** Greg / David / Nayah  
**General Location** SAS 12

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

10:33

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0467144 3766300		
Channel position	East		
Width of Channel	5m 20cm		
Max Depth & location in channel	43 cm/middle		
Depth Edge East (~4" from edge)	12 cm		
Depth Edge West (~4" from edge)	18 cm		
Bank East %Veg Overhand	20%		
Bank West %Veg Overhang	100 %		
Substrate % mud/silt			
Substrate % sand	4%		
Substrate % gravel	10%		
Substrate % cobble	85%		
Substrate % boulder	1%		
Photo East Bank (time & #)	176		
Photo West Bank (time & #)	175 up/east		
Photo upstream (time & #)	176,1		
Photo downstream (time & #)	173		
Photo other (describe)	down/east 172		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	lots of algae high velocity		







# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 18

**Date** 10/17/12

**Target UTM:** 466389

3764819

**Observers (writer/other)** B. YAMAMOTO (WRITER); MATTHEW BATES, SEFF CRIDER, ZYANYA BENNETT

**General Location** RIVERSIDE TO MARKET ST. BRIDGES

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	466373 3764863	466369 3764671	
Channel position	1/3 WAY FROM E. BANK OF SAR CHANNEL		
Width of Channel	12'	19.5'	
Max Depth & location in channel	6" ~ center	11" ~ center	
Depth Edge East (~4" from edge)	2"	7"	
Depth Edge West (~4" from edge)	8"	11"	
Bank East %Veg Overhand	100%	100%	
Bank West %Veg Overhang	100%	100%	
Substrate % mud/silt	< 5%	< 5%	
Substrate % sand	10%	20%	
Substrate % gravel	10%	15%	
Substrate % cobble	60%	30%	
Substrate % boulder	15%	30%	
Photo East Bank (time & #)	11:08	11:14	
Photo West Bank (time & #)			
Photo upstream (time & #)			
Photo downstream (time & #)			
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	2 CUMMINGS ← →		

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 19      **Date** 10/17/12

**Target UTM:**      466226      3764556

**Observers (writer/other)** B. YAMAMOTO / M. BATES / J. CRIDLER / Z. BLANCHAS

**General Location** RIVERBANK TO MARINET

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

← INCORRECT LOCATION, DISREGARD

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	466333 3764853	466492 3764565	
Channel position	1/3 from E. Bank	CLOSE TO E-BANK	
Width of Channel	28.5	60'	
Max Depth & location in channel	21"	12" @ CENTER	
Depth Edge East (~4" from edge)	0"	6"	
Depth Edge West (~4" from edge)	3"	2"	
Bank East %Veg Overhand	100%	100%	
Bank West %Veg Overhang	100%	100%	
Substrate % mud/silt	15%	<5%	
Substrate % sand	40%	25%	
Substrate % gravel	20%	50%	
Substrate % cobble	15%	15%	
Substrate % boulder	10%	<5%	
Photo East Bank (time & #)	11:25	11:38	
Photo West Bank (time & #)			
Photo upstream (time & #)			
Photo downstream (time & #)			
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)		SINGLE CHANNEL JUST UPSTREAM OF BIFURCATION	



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 20      **Date** 10/17/12

**Target UTM:**      **466060**      **3764316**

**Observers (writer/other)** BMM/MCB/JC/ZB

**General Location** RIVERSHORE TO MARINET

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	466045 3764322	465960 3764325	
Channel position	Close to E. River Bank	N. OF CHANNEL #1	
Width of Channel	16'	18'	
Max Depth & location in channel	5" @ MID.	27" JUST OFF W. BANK	
Depth Edge East (~4" from edge)	4"	5"	
Depth Edge West (~4" from edge)	2"	18"	
Bank East %Veg Overhand	100%	0%	
Bank West %Veg Overhang	100%	100%	
Substrate % mud/silt	20%	10%	
Substrate % sand	50%	80%	
Substrate % gravel	25%	<5%	
Substrate % cobble	5%	<5%	
Substrate % boulder	0%	0	
Photo East Bank (time & #)	11:50	11:57	
Photo West Bank (time & #)			
Photo upstream (time & #)			
Photo downstream (time & #)			
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Branched, 2 channels →		

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 21                      Date 10/17/12

Target UTM:                      465905                      3764060

Observers (writer/other) BMY/MCB/SC/ZB

General Location RIVERSIDE TO MARLBOROUGH

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<del>465881</del> 3764061		
Channel position	~40' OFF OF E. BANK		
Width of Channel	23'		
Max Depth & location in channel	19" OFF W. BANK		
Depth Edge East (~4" from edge)	3"		
Depth Edge West (~4" from edge)	5"		
Bank East %Veg Overhand	50%		
Bank West %Veg Overhang	100 %		
Substrate % mud/silt	10%		
Substrate % sand	40%		
Substrate % gravel	15%		
Substrate % cobble	15%		
Substrate % boulder	20%		
Photo East Bank (time & #)	12:08		
Photo West Bank (time & #)			
Photo upstream (time & #)			
Photo downstream (time & #)			
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 22      **Date** 10/17/12

**Target UTM:**      465727      3763828

**Observers (writer/other)** BM/MCB/SC/ZB

**General Location** RIVERSIDE TO MARINET

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	465696 3763866		
Channel position	MID E. BANK OF RIVER		
Width of Channel	55'		
Max Depth & location in channel	9" 1/4 WAY OF EAR BANK OF EAST BANK		
Depth Edge East (~4" from edge)	2"		
Depth Edge West (~4" from edge)	3"		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	10%		
Substrate % sand	25%		
Substrate % gravel	25%		
Substrate % cobble	30%		
Substrate % boulder	10%		
Photo East Bank (time & #)	12:18		
Photo West Bank (time & #)			
Photo upstream (time & #)			
Photo downstream (time & #)			
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 23      **Date** 10/17/12

**Target UTM:**      465529      3763604

**Observers (writer/other)** BM/MCS/SC/ZB

**General Location** RIVERSIDE TO MARKET

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	465492 3763617		
Channel position	CROSS TO E. BANK		
Width of Channel	45'		
Max Depth & location in channel	9" OFF N. BANK		
Depth Edge East (~4" from edge)	4 1/2"		
Depth Edge West (~4" from edge)	3"		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	10%		
Substrate % sand	30%		
Substrate % gravel	30%		
Substrate % cobble	25%		
Substrate % boulder	<5%		
Photo East Bank (time & #)	12:31		
Photo West Bank (time & #)			
Photo upstream (time & #)			
Photo downstream (time & #)			
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 24      **Date** 10/17/12

**Target UTM:**      465313      3763402

**Observers (writer/other)** BMI / MCB / JC/ZB

**General Location** RIVERSIDE TO MARLBOROUGH

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	465307 3763449		
Channel position	OFF E. BANK OF RIVER		
Width of Channel	37'		
Max Depth & location in channel	13" OFF W. BANK		
Depth Edge East (~4" from edge)	1"		
Depth Edge West (~4" from edge)	4"		
Bank East %Veg Overhand	10%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	5%		
Substrate % sand	20%		
Substrate % gravel	30%		
Substrate % cobble	40%		
Substrate % boulder	5%		
Photo East Bank (time & #)	12:42		
Photo West Bank (time & #)			
Photo upstream (time & #)			
Photo downstream (time & #)			
Photo other (describe)			
Photo other (describe)	SIGNIFICANT QUANTITY		
Notes (e.g. Islands, Obstructions)	OF COBBLE OBSERVED		

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 25      **Date** 10/17/12

**Target UTM:**      465119      3763178

**Observers (writer/other)** BMM/MCS/JC/ZB

**General Location** RIVERSIDE TO MARLBOROUGH

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	465055 3763309		
Channel position	OFF OF E. BANK		
Width of Channel	45'		
Max Depth & location in channel	12" OFF E. BANK		
Depth Edge East (~4" from edge)	3"		
Depth Edge West (~4" from edge)	5"		
Bank East %Veg Overhand	<5%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	10%		
Substrate % sand	20%		
Substrate % gravel	40%		
Substrate % cobble	30%		
Substrate % boulder	0%		
Photo East Bank (time & #)	12:52 - 1:01		
Photo West Bank (time & #)			
Photo upstream (time & #)			
Photo downstream (time & #)			
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 26      **Date** 10/17/12

**Target UTM:**      464891      3763008

**Observers (writer/other)** BMM/MCB/JC/ZB

**General Location** RIVERSIDE TO MARQUET

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	464891 3763038		
Channel position			
Width of Channel	32'		
Max Depth & location in channel	16" @ CENTER		
Depth Edge East (~4" from edge)	2 1/2"		
Depth Edge West (~4" from edge)	4"		
Bank East %Veg Overhand	60%		
Bank West %Veg Overhang	45%		
Substrate % mud/silt	45%		
Substrate % sand	25%		
Substrate % gravel	15%		
Substrate % cobble	30%		
Substrate % boulder	25%		
Photo East Bank (time & #)	13:08		
Photo West Bank (time & #)			
Photo upstream (time & #)			
Photo downstream (time & #)			
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Small (~2' wide) island of sand/ gravel - did not consider this a braided channel.		

### Group3

**Transects: 27 through 34.** The first car should park off of Mission Inn Ave. at the Carlson Bark Park on the left side of the road. The second car should park upstream off of Market Street where the street crosses the river. Directions: Take 91 East. Exit University Ave. Go through light for University and continue on to Mission Inn Ave. Turn left onto Mission Inn Ave. Dog Park will be on the left hand side. From Dog Park (leave first car here), turn right. Turn left when you reach Market Street.

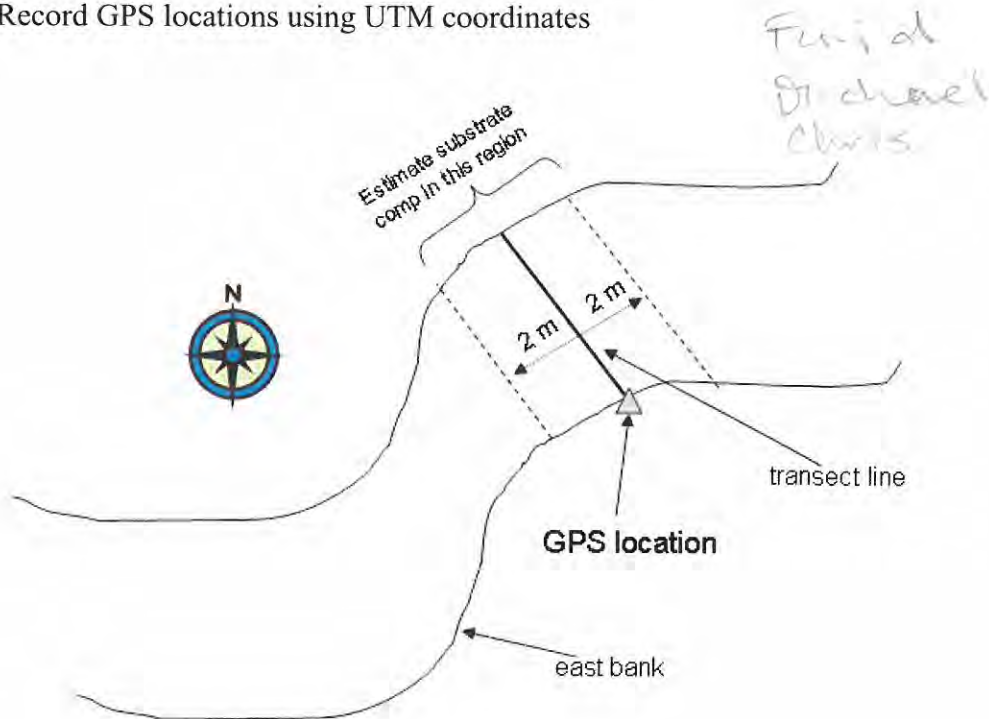
Please use your GPS unit to guide you to each waypoint.

If the waypoint is not in the river, walk to the closest location that is in the river and record on your data sheet the actual GPS location on the east bank.

If there is more than one channel, record on your data sheet the GPS location on the east bank of each channel.

Based on the data collected in the previous River Walk, here are some tips:

- Please record all measurements using the metric system; there should be enough transect tapes/meter sticks with metric units for each group.
- 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%
- Record GPS locations using UTM coordinates



If you have any problems, please call ~~Michelle Johnson at 909-401-7280~~ Bonnie Johnson 909-401-7280, Bonnie Johnson 951-757-0782 or Talula Barbee 909-322-3187 or 951-212-8736

# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name: SAS 34**                      **Date** \_\_\_\_\_

**Target UTM:**              **463583**              **3761123**

**Observers (writer/other)** \_\_\_\_\_

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0463531 3761195		
Channel position			
Width of Channel	16m		
Max Depth & location in channel	30cm W		
Depth Edge East (~4" from edge)	1cm		
Depth Edge West (~4" from edge)	9cm		
Bank East %Veg Overhand	<1%		
Bank West %Veg Overhang	2m		
Substrate % mud/silt	1m ~ 3%		
Substrate % sand	25%		
Substrate % gravel	62%		
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	57		
Photo West Bank (time & #)	59		
Photo upstream (time & #)	59		
Photo downstream (time & #)	60		
Photo other (describe)	56: substrate gravel bar		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 28                      **Date** \_\_\_\_\_  
**Target UTM:**            464577            3762520  
**Observers (writer/other)** \_\_\_\_\_

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	046 4529 376 2517		
Channel position			
Width of Channel	10.1 m		
Max Depth & location in channel	30 cm W		
Depth Edge East (~4" from edge)	0.5 cm		
Depth Edge West (~4" from edge)	14m		
Bank East %Veg Overhand	10%		
Bank West %Veg Overhang	5%		
Substrate % mud/silt	10%		
Substrate % sand	10%		
Substrate % gravel	60%		
Substrate % cobble	20%		
Substrate % boulder			
Photo East Bank (time & #)	12		
Photo West Bank (time & #)	13		
Photo upstream (time & #)	15		
Photo downstream (time & #)	16 10:55		
Photo other (describe)	17 substrate		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

18 : 50 cm next raft  
 19 : substrate D/S

# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 30                      **Date** \_\_\_\_\_  
**Target UTM:**            464384            3761974  
**Observers (writer/other)** \_\_\_\_\_  
**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0464390 3761981		
Channel position			
Width of Channel	12.2 m		
Max Depth & location in channel	37 cm E		
Depth Edge East (~4" from edge)	0.5 cm		
Depth Edge West (~4" from edge)	2 cm		
Bank East %Veg Overhand	grass bench 2.2		
Bank West %Veg Overhang	7.3 m		
Substrate % mud/silt	50 %		
Substrate % sand	40 %		
Substrate % gravel	10		
Substrate % cobble	0 %		
Substrate % boulder			
Photo East Bank (time & #)	28 11:15		
Photo West Bank (time & #)	29		
Photo upstream (time & #)	30		
Photo downstream (time & #)	31		
Photo other (describe)	32 East bank grass		
Photo other (describe)	3		
Notes (e.g. Islands, Obstructions)			

channel located on East

26.52 cm deep at 50 feet

27: sediment sand

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 31                      **Date** \_\_\_\_\_

**Target UTM:**            464221            3761719

**Observers (writer/other)** \_\_\_\_\_

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0464205 3761722		
Channel position			
Width of Channel	9.3 m		
Max Depth & location in channel	41 cm center		
Depth Edge East (~4" from edge)	3 cm		
Depth Edge West (~4" from edge)	3 cm		
Bank East %Veg Overhand	12%		
Bank West %Veg Overhang	1%		
Substrate % mud/silt	1%		
Substrate % sand	70%		
Substrate % gravel	30%		
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	34		
Photo West Bank (time & #)	33		
Photo upstream (time & #)	35		
Photo downstream (time & #)	36		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

37  
deepest  
6 ft 1/2 55 cm  
6 3 cm

38 side channel  
11/16 2/3 = 1/2 (1/2 in)  
39 (288)



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 27                      Date \_\_\_\_\_

Target UTM:            464709            3762787

Observers (writer/other) \_\_\_\_\_

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	046 4665 376 2822		
Channel position	W		
Width of Channel	11.5 m		
Max Depth & location in channel	23 cm 1M		
Depth Edge East (~4" from edge)	3 cm		
Depth Edge West (~4" from edge)	3 cm		
Bank East %Veg Overhand	15%		
Bank West %Veg Overhang	1%		
Substrate % mud/silt	10%		
Substrate % sand	60%		
Substrate % gravel	10%		
Substrate % cobble	15%		
Substrate % boulder			
Photo East Bank (time & #)	1		
Photo West Bank (time & #)	2		
Photo upstream (time & #)	3		
Photo downstream (time & #)	4		
Photo other (describe)	5 substrate		
Photo other (describe)	deep locate 6 (53 cm) D/S		
Notes (e.g. Islands, Obstructions)	7 substrate		

12: upstream of 60 bridge

8: graded between transects below bridge

9: channel under 60 middle grade  
10: East bank channel

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 32                      Date \_\_\_\_\_

Target UTM:                      464043                      3761475

Observers (writer/other) \_\_\_\_\_

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0464002 3761480		
Channel position			
Width of Channel	9.4 m		
Max Depth & location in channel	27 cm E		
Depth Edge East (~4" from edge)	4.5 cm		
Depth Edge West (~4" from edge)	10 cm		
Bank East %Veg Overhand	4%		
Bank West %Veg Overhang	4%		
Substrate % mud/silt	<1%		
Substrate % sand	30%		
Substrate % gravel	50%		
Substrate % cobble	20%		
Substrate % boulder			
Photo East Bank (time & #)	40		
Photo West Bank (time & #)	41		
Photo upstream (time & #)	42		
Photo downstream (time & #)	43 11:15		
Photo other (describe)	44: substrate		
Photo other (describe)	45: side channel		
Notes (e.g. Islands, Obstructions)	46 gravel bar		

47 67 cm deep hole in River

# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name: SAS 29**                      **Date** \_\_\_\_\_

**Target UTM:**            **464516**            **3762234**

**Observers (writer/other)** \_\_\_\_\_

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	046 4501 376 2239		
Channel position			
Width of Channel	6.1 m		
Max Depth & location in channel	36 cm <input checked="" type="checkbox"/>		
Depth Edge East (~4" from edge)	9 cm		
Depth Edge West (~4" from edge)	12 cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	1%		
Substrate % sand	50%		
Substrate % gravel	24%		
Substrate % cobble	25%		
Substrate % boulder			
Photo East Bank (time & #)	20		
Photo West Bank (time & #)	21		
Photo upstream (time & #)	22		
Photo downstream (time & #)	23 10:53		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

24. middle barade

25. lille island I/S



# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

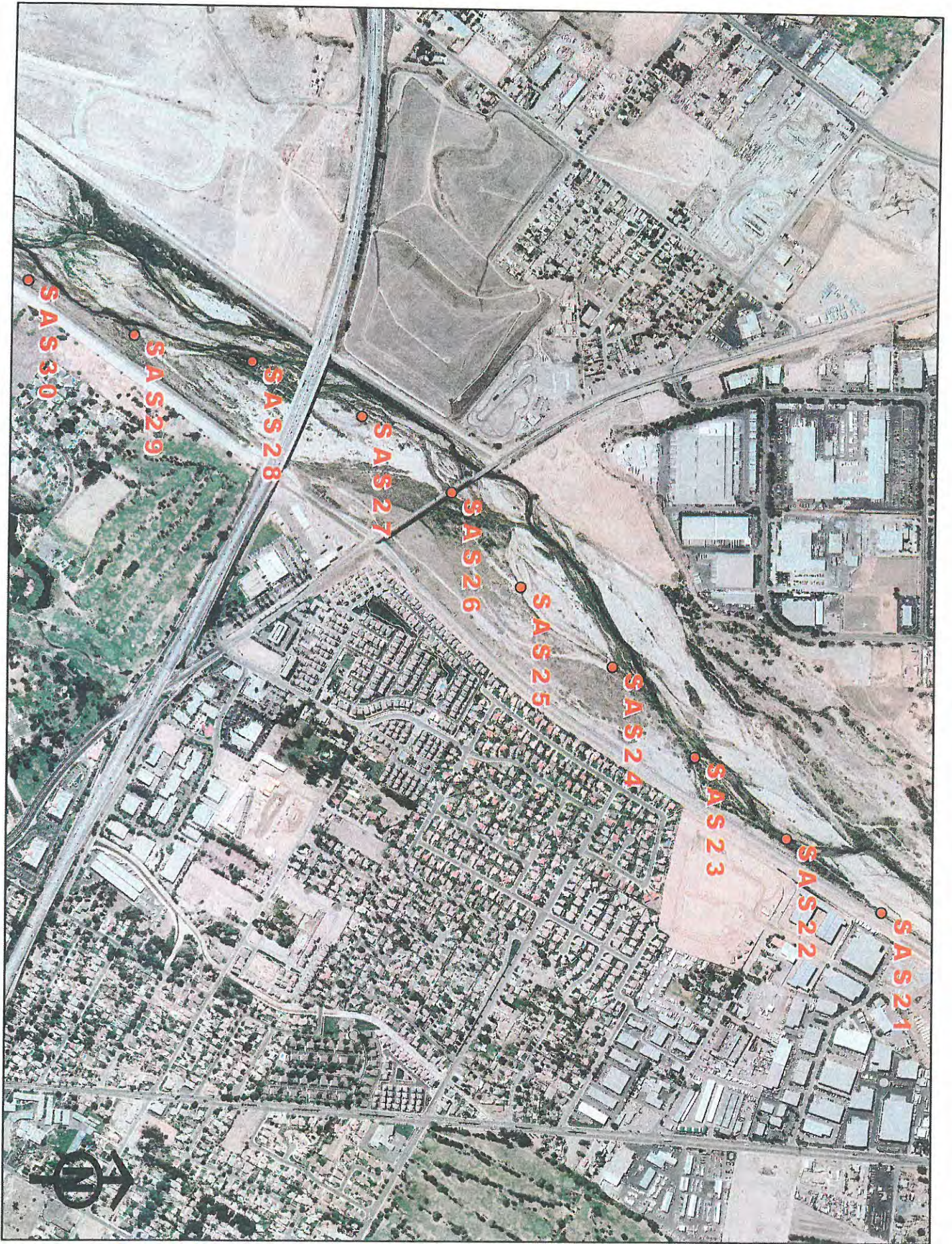
**Transect Name:** SAS 33                      **Date** \_\_\_\_\_  
**Target UTM:**            463862            3761243  
**Observers (writer/other)** \_\_\_\_\_  
**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	046 3801 376 1340		
Channel position			
Width of Channel			
Max Depth & location in channel	34 <sup>cm</sup> E		
Depth Edge East (~4" from edge)	3 cm		
Depth Edge West (~4" from edge)	28 cm		
Bank East %Veg Overhand	2 <sup>m</sup>		
Bank West %Veg Overhang	0.7 <sup>m</sup>		
Substrate % mud/silt	0		
Substrate % sand	95		
Substrate % gravel	5		
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	48 12 <sup>oc</sup>		
Photo West Bank (time & #)	49		
Photo upstream (time & #)	50		
Photo downstream (time & #)	51		
Photo other (describe)	52 tail of herb channel substrate		
Photo other (describe)	53 island		
Notes (e.g. Islands, Obstructions)	54 Miss on bridge		

55 substrate





SAS 21

SAS 22

SAS 23

SAS 24

SAS 25

SAS 26

SAS 27

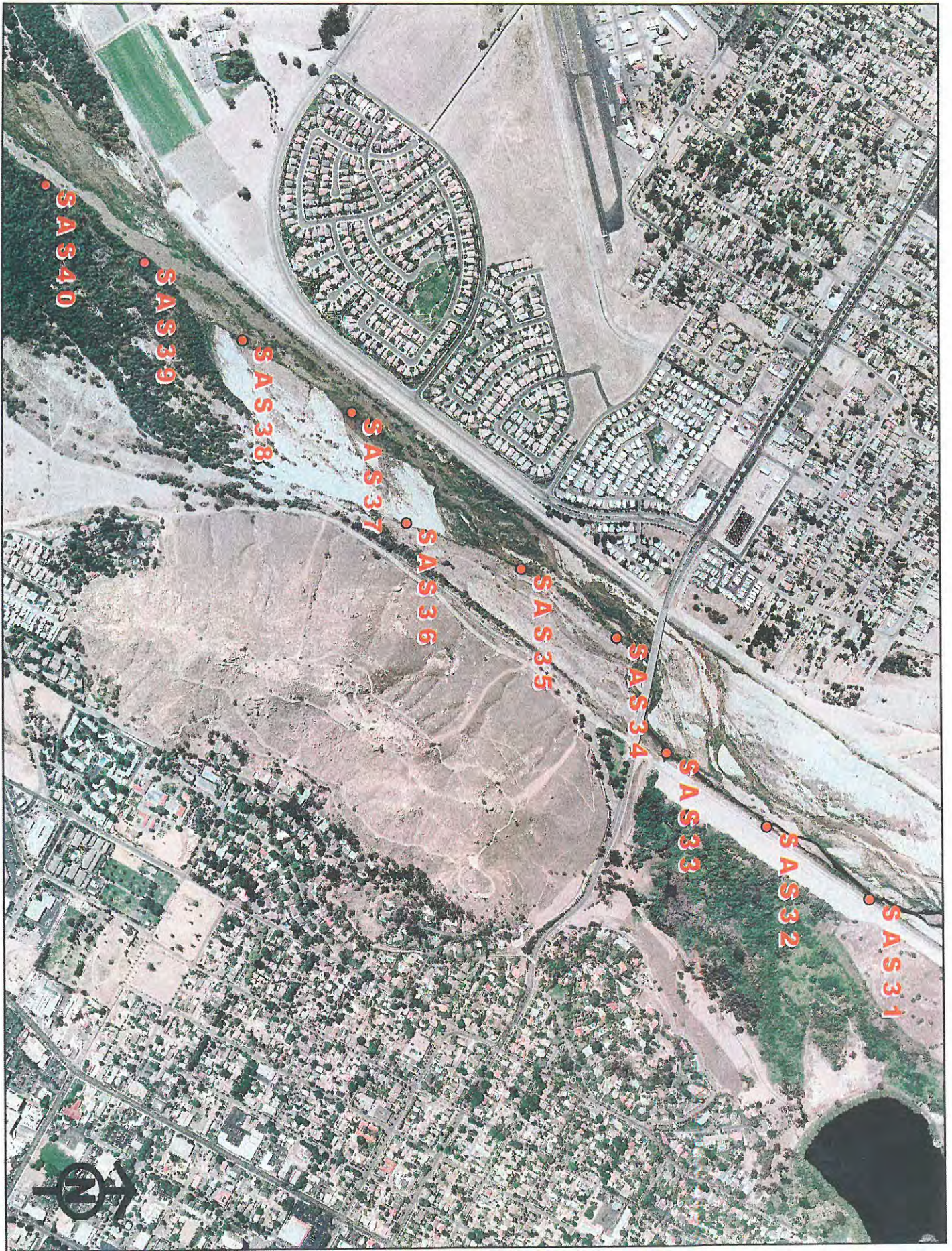
SAS 28

SAS 29

SAS 30









## Group4

Transects: **35 through 43**. The first car should park at the end of Rubidoux Ave. by the yellow gate and airplane house. The second car should park upstream off of Mission Inn Ave. at the Carlson Bark Park on the left side of the road. Directions: Take 91 East. Exit 14<sup>th</sup> Street. Turn left onto 14<sup>th</sup> Street. Turn left onto Brockton Ave. Turn right onto Bandini Ave. Bandini Ave. will turn into Grand Ave. Turn right onto Rubidoux Ave. (first car here). Turn around turn left on Grand. Turn left onto Palm. Turn Mission Inn Ave.

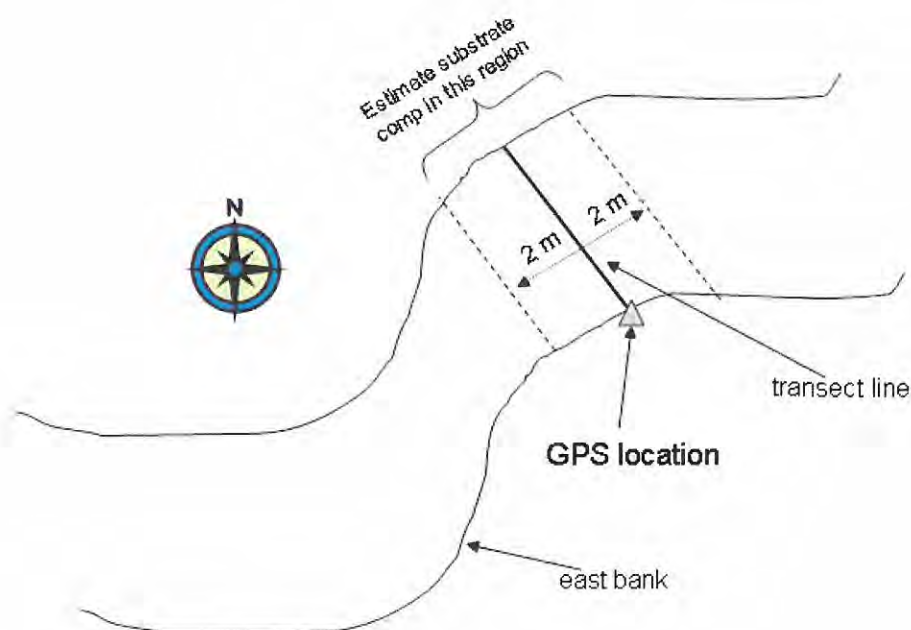
Please use your GPS unit to guide you to each waypoint.

If the waypoint is not in the river, walk to the closest location that is in the river and record on your data sheet the actual GPS location on the east bank.

If there is more than one channel, record on your data sheet the GPS location on the east bank of each channel.

Based on the data collected in the previous River Walk, here are some tips:

- Please record all measurements using the metric system; there should be enough transect tapes/meter sticks with metric units for each group.
- 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%
- Record GPS locations using UTM coordinates



If you have any problems, please call ~~Michelle Barbee~~ Bonnie Johnson 951-2128734 or Talula Barbee 909-322-3187 or 951-2128734





SAS 40

SAS 39

SAS 38

SAS 37

SAS 36

SAS 35

SAS 34

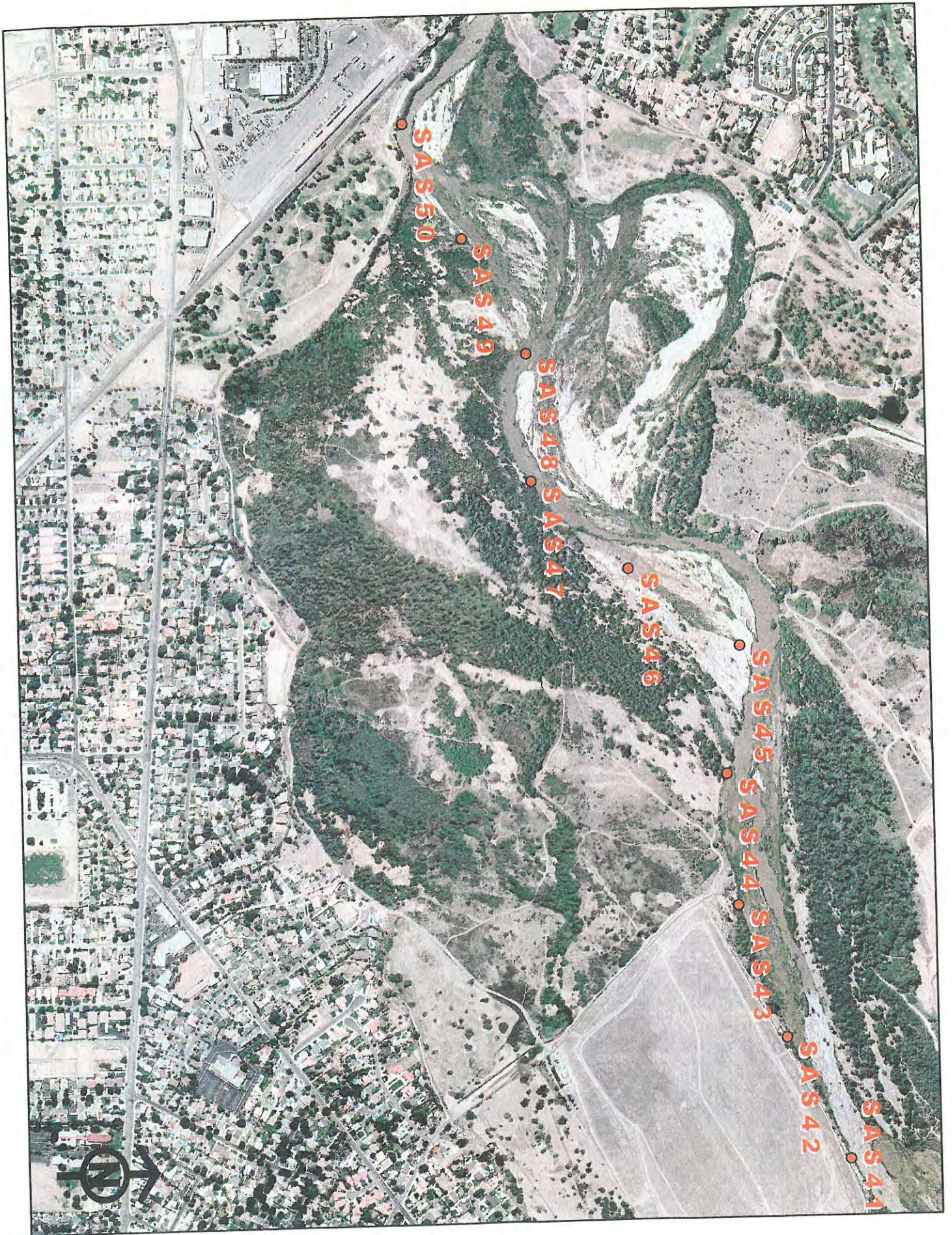
SAS 33

SAS 32

SAS 31







SAS 41

SAS 42

SAS 43

SAS 44

SAS 45

SAS 46

SAS 47

SAS 48

SAS 49

SAS 50



## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 35

Date 10/17/12

Target UTM: 463416

3760895

Observers (writer/other) Karley & Malloy

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0463416 3760895	- NO WATER	
Channel position	N-S		
Width of Channel	26 m		
Max Depth & location in channel	Ø		
Depth Edge East (~4" from edge)	Ø		
Depth Edge West (~4" from edge)	Ø		
Bank East %Veg Overhand	10%		
Bank West %Veg Overhang	10%		
Substrate % mud/silt	30		
Substrate % sand	70		
Substrate % gravel	0		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	106-0975 10:04am		
Photo West Bank (time & #)	106-0976 10:06		
Photo upstream (time & #)	106-0977 10:07		
Photo downstream (time & #)	106-0978 10:07		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	NO WATER		

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 36

**Date** 10/17/12

**Target UTM:** 463304

3760620

**Observers (writer/other)** Karly & Mallory

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0463301 3760630	NO WATER	
Channel position	N-S		
Width of Channel	75 m		
Max Depth & location in channel	Ø		
Depth Edge East (~4" from edge)	Ø		
Depth Edge West (~4" from edge)	Ø		
Bank East %Veg Overhand	0		
Bank West %Veg Overhang	0		
Substrate % mud/silt	0		
Substrate % sand	85		
Substrate % gravel	10		
Substrate % cobble	5		
Substrate % boulder	0		
Photo East Bank (time & #)			
Photo West Bank (time & #)	106-0979 10:35		
Photo upstream (time & #)	106-0980 10:36		
Photo downstream (time & #)	106-0981 10:36		

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 37

**Date** 10/17/12

**Target UTM:** 463037

3760488

**Observers (writer/other)** Karly & Mallory

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	463003 3760505		
Channel position	N-5		
Width of Channel	1 1/2 m		
Max Depth & location in channel	10 1/2" - 2 3/4 m from W. Bank		
Depth Edge East (~4" from edge)	2		
Depth Edge West (~4" from edge)	4 1/2"		
Bank East %Veg Overhand	<del>10</del> 30		
Bank West %Veg Overhang	10		
Substrate % mud/silt	0		
Substrate % sand	50		
Substrate % gravel	50		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	106-0984 11:08		
Photo West Bank (time & #)	0987 11:11		
Photo upstream (time & #)	0985 11:09		
Photo downstream (time & #)	0986 11:11		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 38

Date 10/17/12

Target UTM: 462863

3760225

Observers (writer/other) Karly & Mallory

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	462745 3760245		
Channel position	N-5		
Width of Channel			
Max Depth & location in channel	9" midstream		
Depth Edge East (~4" from edge)	6 1/2"		
Depth Edge West (~4" from edge)	4"		
Bank East %Veg Overhand	0		
Bank West %Veg Overhang	0		
Substrate % mud/silt	0		
Substrate % sand	60		
Substrate % gravel	40		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	0990 11:32		
Photo West Bank (time & #)	0991 11:32		
Photo upstream (time & #)	0992 11:33		
Photo downstream (time & #)	0993 11:33		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

04620986 - gravel rd  
 3760485 0989-88

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 39      **Date** 10/17/12  
**Target UTM:**      462673      3759993  
**Observers (writer/other)** Karly & Mallory  
**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	462650 3759992		
Channel position	N-S		
Width of Channel	2 1/2 m		
Max Depth & location in channel	12" 1M from East edge		
Depth Edge East (~4" from edge)	5"		
Depth Edge West (~4" from edge)	5"		
Bank East %Veg Overhand	5		
Bank West %Veg Overhang	0		
Substrate % mud/silt	0		
Substrate % sand	75		
Substrate % gravel	25		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	999 12:03		
Photo West Bank (time & #)	994 12:03		
Photo upstream (time & #)	992 12:03		
Photo downstream (time & #)	997 12:03		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 40

Date 10/17/12

Target UTM: 462488

3759753

Observers (writer/other)

Kerry & Mallory

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0462488 3759753		
Channel position	N-S		
Width of Channel	30m		
Max Depth & location in channel	9' 1" from left bank		
Depth Edge East (~4" from edge)	2"		
Depth Edge West (~4" from edge)	1"		
Bank East %Veg Overhang	40%		
Bank West %Veg Overhang	0%		
Substrate % mud/silt	25		
Substrate % sand	60		
Substrate % gravel	10		
Substrate % cobble	5		
Substrate % boulder	0		
Photo East Bank (time & #)	009 12:40		
Photo West Bank (time & #)	008 12:30		
Photo upstream (time & #)	100-1000 12:27		
Photo downstream (time & #)	1001 12:29		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 41

Date 10/17/12

Target UTM: 462256

3759548

Observers (writer/other) Kenny & Mallory

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	462256 3759548		
Channel position			
Width of Channel	21 1/2 m		
Max Depth & location in channel	7" mid channel		
Depth Edge East (~4" from edge)	3"		
Depth Edge West (~4" from edge)	2"		
Bank East %Veg Overhand	60		
Bank West %Veg Overhang	45		
Substrate % mud/silt	40		
Substrate % sand	45		
Substrate % gravel	5		
Substrate % cobble	10		
Substrate % boulder	0		
Photo East Bank (time & #)	1005 12:44		
Photo West Bank (time & #)	1002 12:44		
Photo upstream (time & #)	1003 12:45		
Photo downstream (time & #)	1004 12:45		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

gravel bed water 3759648

# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 42

**Date:** 10/17/12

**Target UTM:** 461985

3759412

**Observers (writer/other):** Kamy & Mallory

**General Location**

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	462000 3759470	462005 3759490	
Channel position	N		
Width of Channel	7m	3.5m	
Max Depth & location in channel	13" in channel	9" in channel	
Depth Edge East (~4" from edge)	9"	5"	
Depth Edge West (~4" from edge)	4"	3"	
Bank East %Veg Overhand	0	15	
Bank West %Veg Overhang	15	15	
Substrate % mud/silt	5	0	
Substrate % sand	25	95	
Substrate % gravel	0	0	
Substrate % cobble	0	0	
Substrate % boulder	0	0	
Photo East Bank (time & #)	1009 1:05	1013 1:01	
Photo West Bank (time & #)	1006 1:03	1010 1:07	
Photo upstream (time & #)	1007 1:03	1011 1:07	
Photo downstream (time & #)	1008 1:04	1012 1:07	
Photo other (describe)			
Photo other (describe)	1014 downstream	east of 2 channels	
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 43

Date 10/17/12

Target UTM: 461691

3759312

Observers (writer/other) Karley & Mallory

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	461696 375931		
Channel position	N-5		
Width of Channel	16m		
Max Depth & location in channel	10" 576	10" 475	
Depth Edge East (~4" from edge)	3"		
Depth Edge West (~4" from edge)	6"		
Bank East %Veg Overhand	20		
Bank West %Veg Overhang	10		
Substrate % mud/silt	0		
Substrate % sand	95		
Substrate % gravel	0		
Substrate % cobble	5		
Substrate % boulder	0		
Photo East Bank (time & #)	1017 14		
Photo West Bank (time & #)	1019 26		
Photo upstream (time & #)	1016 20		
Photo downstream (time & #)	1018 26		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

## Group5

**Transects: 44 through 51.** The first car should park at the Martha McLean/Anza Narrows Park off of Jurupa Ave. The second car should park upstream at the end of Rubidoux Ave. by the yellow gate and airplane house. Directions: Take 91 East. Exit Central Ave. Turn left onto Central Ave. Turn right onto Palm Ave. Turn left onto Jurupa Ave. Anza Narrows Park will be on the right side right before the Railroad overpass (first car here). From park turn left onto Jurupa Ave. Turn left onto Grand Ave. Turn left onto Rubidoux Ave.

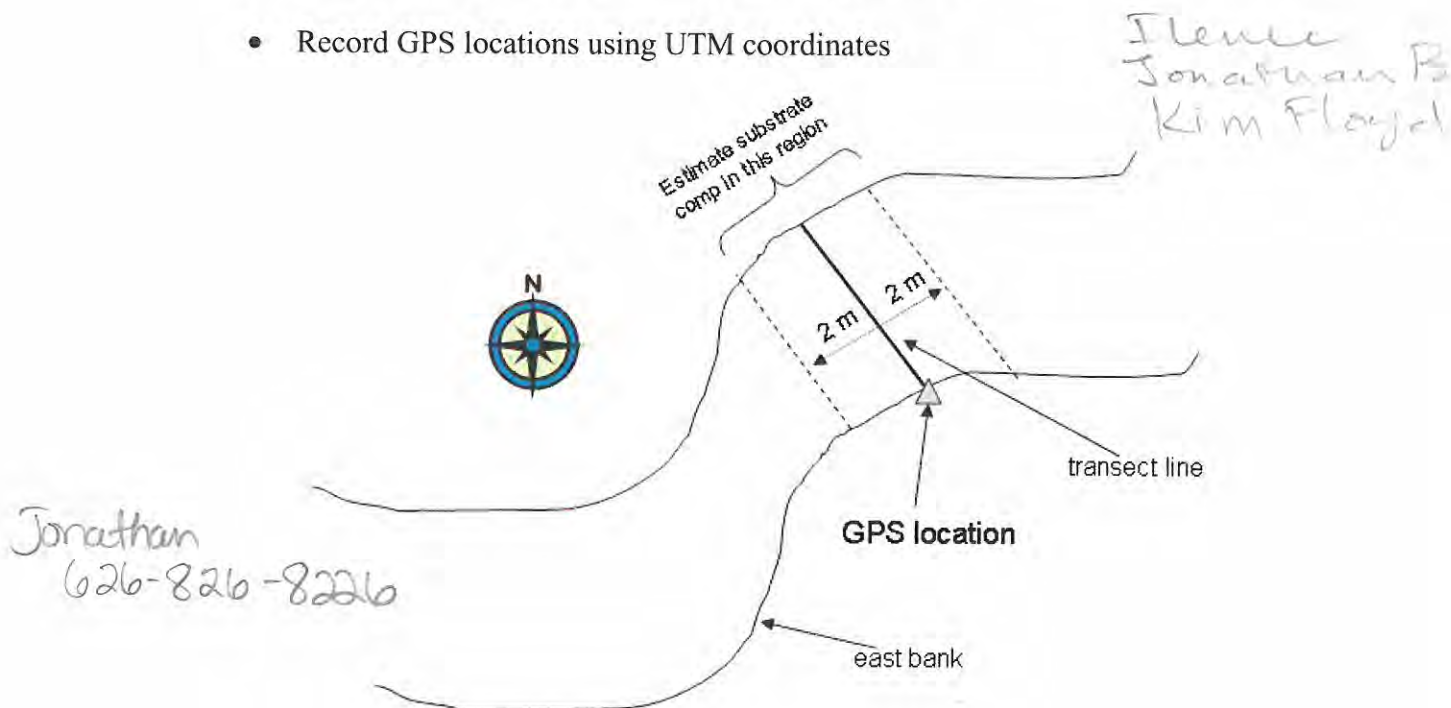
Please use your GPS unit to guide you to each waypoint.

If the waypoint is not in the river, walk to the closest location that is in the river and record on your data sheet the actual GPS location on the east bank.

If there is more than one channel, record on your data sheet the GPS location on the east bank of each channel.

Based on the data collected in the previous River Walk, here are some tips:

- Please record all measurements using the metric system; there should be enough transect tapes/meter sticks with metric units for each group.
- 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%
- Record GPS locations using UTM coordinates



If you have any problems, please call ~~Dick Johnson at 714-493-1281~~, Bonnie ~~Johnson~~ Johnson 951-757-0782 or Talula Barbee 909-322-3187 or 951-212-8736



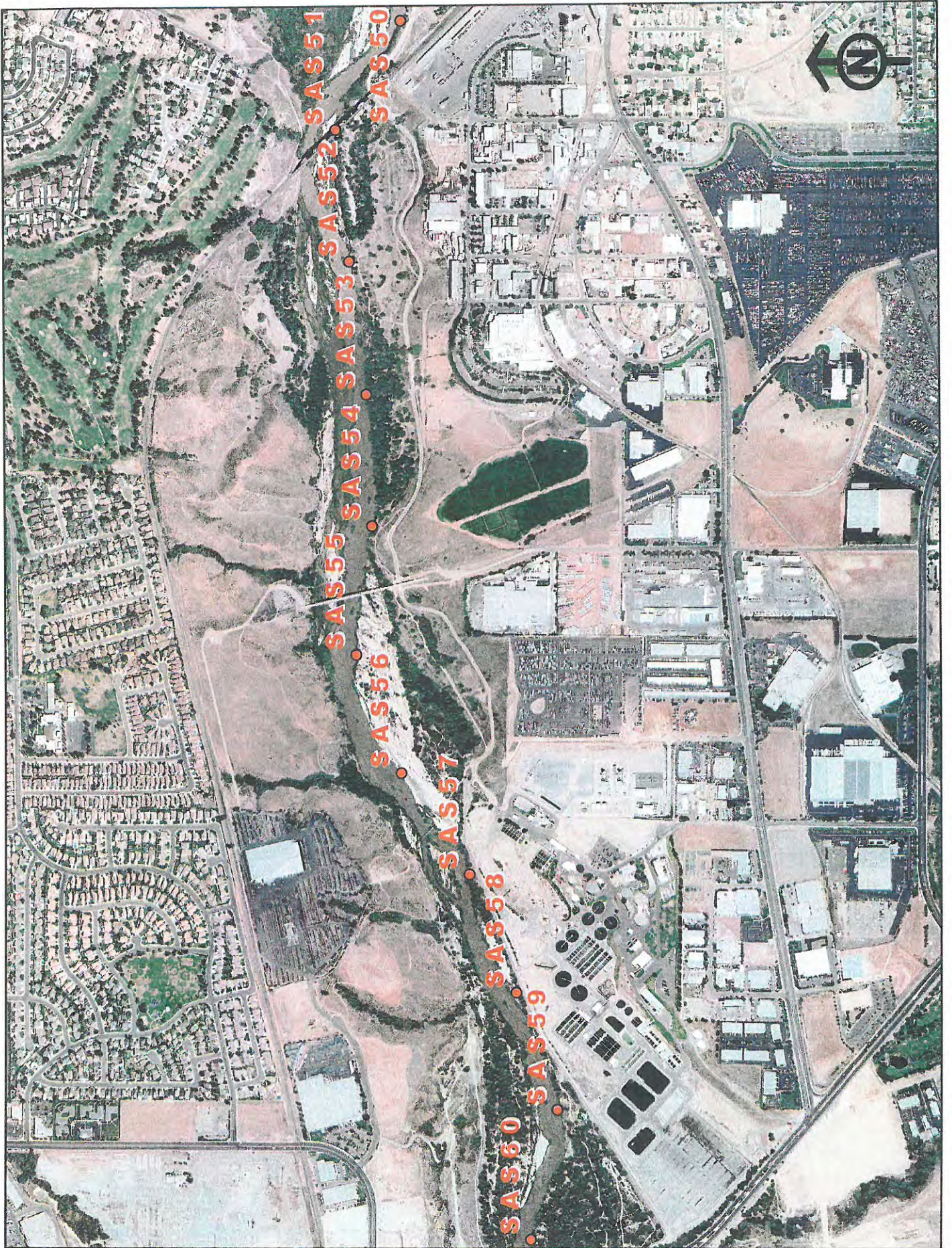
Tussock



past 8/

Grand  
 Streeter  
 Pwllidour





no moved



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 44

**Date** 10/17/12

**Target UTM:** 461400

3759292

**Observers (writer/other)** Jeene A(w)/Jonathan Burkin/Mike Saba/Kim Floyd

**General Location** river has moved to the west/N

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	115 0461384 375 9347		
Channel position	Central		
Width of Channel	10.8 M		
Max Depth & location in channel	510 cm		
Depth Edge East (~4" from edge)	50 cm		
Depth Edge West (~4" from edge)	30 cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100% Tupa		
Substrate % mud/silt	10%		
Substrate % sand	85%		
Substrate % gravel	5%		
Substrate % cobble	—		
Substrate % boulder	—		
Photo East Bank (time & #)	326		
Photo West Bank (time & #)	324		
Photo upstream (time & #)	323		
Photo downstream (time & #)	325		
Photo other (describe)	—		
Photo other (describe)	—		
Notes (e.g. Islands, Obstructions)	small sandbar ~ 1.5 m wide		

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 45

**Date:** 10/17/12

**Target UTM:** 461118

3759327

**Observers (writer/other):** Anderson (w)/Baskin/Saba/Floyd

**General Location**

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

	western	eastern	
OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	1150461136 3759258	1150461141 3759	
Channel position	near east bank	on east	
Width of Channel	12.5 m	9.7 m	
Max Depth & location in channel	280 cm	33 cm	
Depth Edge East (~4" from edge)	40 cm	50 cm	
Depth Edge West (~4" from edge)	70 cm	40 cm	
Bank East %Veg Overhand	0%	100%	
Bank West %Veg Overhang	100%	75%	
Substrate % mud/silt	—	40%	
Substrate % sand	80%	58%	
Substrate % gravel	20%	2%	
Substrate % cobble	—	—	
Substrate % boulder	—	—	
Photo East Bank (time & #)	330	334	
Photo West Bank (time & #)	328	332	
Photo upstream (time & #)	327	331	
Photo downstream (time & #)	329	333	
Photo other (describe)	—	—	
Photo other (describe)	—	—	
Notes (e.g. Islands, Obstructions)	river flows around an island w/ boulders/vegetation		



btwn 45-46 → Riffle #1 11S 0461042  
3759213

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

gravel, cobble, algae  
photos 335, 336

**Transect Name:** SAS 46

**Date:** 10/17/12

**Target UTM:** 460944

3759091

more similar riffles downstream

**Observers (writer/other):** Anderson (w)/Baskin/Saba/Flond

**General Location:** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	11S 0460917 3759107		
Channel position	mid channel		
Width of Channel	16.8 M		
Max Depth & location in channel	32 cm		
Depth Edge East (~4" from edge)	55 cm		
Depth Edge West (~4" from edge)	9 cm		
Bank East %Veg Overhand	90%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	10%		
Substrate % sand	90%		
Substrate % gravel	—		
Substrate % cobble	—		
Substrate % boulder	—		
Photo East Bank (time & #)	340		
Photo West Bank (time & #)	338		
Photo upstream (time & #)	337		
Photo downstream (time & #)	339		
Photo other (describe)	—		
Photo other (describe)	—		
Notes (e.g. Islands, Obstructions)	—		

btwn 46:47 good riffle #2 11S0460896  
3759083

**SAWA 2012 River Walk**  
**Santa Ana River Habitat Evaluation**

gravel: cobble  
photo # 341: 342

**Transect Name: SAS 47**

**Date** 10/17/12

downstream  
good riffle #3

11S0460811

**Target UTM:** 460746

3758882

10m long 3758940

**Observers (writer/other)** Anderson(w)/Buskin/Saba/Floyd

**General Location**

gravel, cobble, algae

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

photo # 343: 344

eastern

western

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	11S0460757 3758871	11S0460744 3758884	
Channel position	near east edge of channel		
Width of Channel	14.1m	8.1m	
Max Depth & location in channel	28 cm	23 cm	
Depth Edge East (~4" from edge)	4 cm	0.5 cm	
Depth Edge West (~4" from edge)	2 cm	13 cm	
Bank East %Veg Overhand	100%	0%	
Bank West %Veg Overhang	100%	100%	
Substrate % mud/silt	20%	10%	
Substrate % sand	80%	50%	
Substrate % gravel	—	40%	
Substrate % cobble	—	—	
Substrate % boulder	—	—	
Photo East Bank (time & #)	349	353	
Photo West Bank (time & #)	347	351	
Photo upstream (time & #)	346	350	
Photo downstream (time & #)	348	352	
Photo other (describe)	—	—	
Photo other (describe)	—	—	
Notes (e.g. Islands, Obstructions)	—	island btwn channels 3-4m wide	



# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

large island btwn  
channels ~50M  
meters wide

**Transect Name:** SAS 48      **Date** 10/17/12  
**Target UTM:** 460464      3758878  
**Observers (writer/other)** Anderson (w)/Baskin/Saba/Floyd  
**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

	eastern	western	<del>CHANNEL #3</del>
OBSERVATIONS	CHANNEL #1	CHANNEL #2	
Actual GPS coordinates in UTM (@ East bank)	11S0460526 3758720	11S046098 3758786	
Channel position	eastern	mid-channel	
Width of Channel	10.5 M	6.4 M	
Max Depth & location in channel	35 cm	22.3 cm	
Depth Edge East (~4" from edge)	3 cm	11.5 cm	
Depth Edge West (~4" from edge)	7 cm	6 cm	
Bank East %Veg Overhand	100%	100%	
Bank West %Veg Overhang	100%	100%	
Substrate % mud/silt	30%	20%	
Substrate % sand	70%	60%	
Substrate % gravel	—	—	
Substrate % cobble	—	—	
Substrate % boulder	—	—	
Photo East Bank (time & #)	363	359	
Photo West Bank (time & #)	361	357	
Photo upstream (time & #)	360	356	
Photo downstream (time & #)	362	358	
Photo other (describe)	—	—	
Photo other (describe)	—	—	
Notes (e.g. Islands, Obstructions)	—	—	

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 49

Date 10/17/12

Target UTM: 460204

3758743

Observers (writer/other) Anderson(w)/Baskin/Saba/Hond

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	<del>CHANNEL #2</del>	<del>CHANNEL #3</del>
Actual GPS coordinates in UTM (@ East bank)	1150460216 3758754		
Channel position	midchannel		
Width of Channel	15.8 m		
Max Depth & location in channel	31.5 cm		
Depth Edge East (~4" from edge)	10 cm		
Depth Edge West (~4" from edge)	3 cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	3%		
Substrate % sand	95%		
Substrate % gravel	2%		
Substrate % cobble	—		
Substrate % boulder	—		
Photo East Bank (time & #)	367		
Photo West Bank (time & #)	365		
Photo upstream (time & #)	364		
Photo downstream (time & #)	366		
Photo other (describe)	—		
Photo other (describe)	—		
Notes (e.g. Islands, Obstructions)	2 channels converge several meters above this point		



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

riffle #4  
1150460148  
375 8778

**Transect Name:** SAS 50      **Date** 10/17

**Target UTM:**      **459949**      **3758619**

**Observers (writer/other)** Anderson (w)/Buskin/Saba/Floud

few cobbles, mostly gravel w/sand embedded  
photos 372 & 373

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

	western	eastern	
OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	1150459931 3758694	1150459939 3758671	
Channel position	mid channel		
Width of Channel	15.05M	6.1M	
Max Depth & location in channel	28cm	14cm	
Depth Edge East (~4" from edge)	10cm	5cm	
Depth Edge West (~4" from edge)	15.5cm	4cm	
Bank East %Veg Overhand	100%	100%	
Bank West %Veg Overhang	100%	0%	
Substrate % mud/silt	10%	30%	
Substrate % sand	90%	70%	
Substrate % gravel	—	—	
Substrate % cobble	—	—	
Substrate % boulder	—	—	
Photo East Bank (time & #)	383	387	
Photo West Bank (time & #)	381	385	
Photo upstream (time & #)	380	384	
Photo downstream (time & #)	382	386	
Photo other (describe)	—	—	
Photo other (describe)	—	—	
Notes (e.g. Islands, Obstructions)	—	—	

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 51

Date 10/17/12

Target UTM: 459694

3758774

Observers (writer/other) Anderson (W) / Baskin / Saba / Floyd

General Location near Railroad trestle

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	15 0459697 3758800		
Channel position	<u>near trestle</u>		
Width of Channel	<u>10.9 m</u>		
Max Depth & location in channel	<u>31.5 cm</u>		
Depth Edge East (~4" from edge)	<u>12.5 cm</u>		
Depth Edge West (~4" from edge)	<u>14 cm</u>		
Bank East %Veg Overhand	<u>100%</u>		
Bank West %Veg Overhang	<u>100%</u>		
Substrate % mud/silt	<u>40%</u>		
Substrate % sand	<u>60%</u>		
Substrate % gravel	<u>—</u>		
Substrate % cobble	<u>—</u>		
Substrate % boulder	<u>—</u>		
Photo East Bank (time & #)	<u>392</u>		
Photo West Bank (time & #)	<u>390</u>		
Photo upstream (time & #)	<u>389</u>		
Photo downstream (time & #)	<u>391</u>		
Photo other (describe)	<u>—</u>		
Photo other (describe)	<u>—</u>		
Notes (e.g. Islands, Obstructions)	<u>—</u>		



## Group7

Transects: **61 through 70**. The first car should park at the corner of Downey Street and 64<sup>th</sup> Street. The second car should park upstream at the end of Doolittle Ave. Directions: Take 91 East. Exit Van Buren Blvd. Turn left onto Indiana then another quick left onto Van Buren Blvd. Take Van Buren over the river to Limonite Ave. Turn left onto Limonite Ave. Turn left onto Downey Street (first car here). Turn around on Downey Street. Turn right onto Limonite Ave. Turn right onto Van Buren Blvd. Turn right onto Morris Ave. Turn right onto Doolittle Ave.

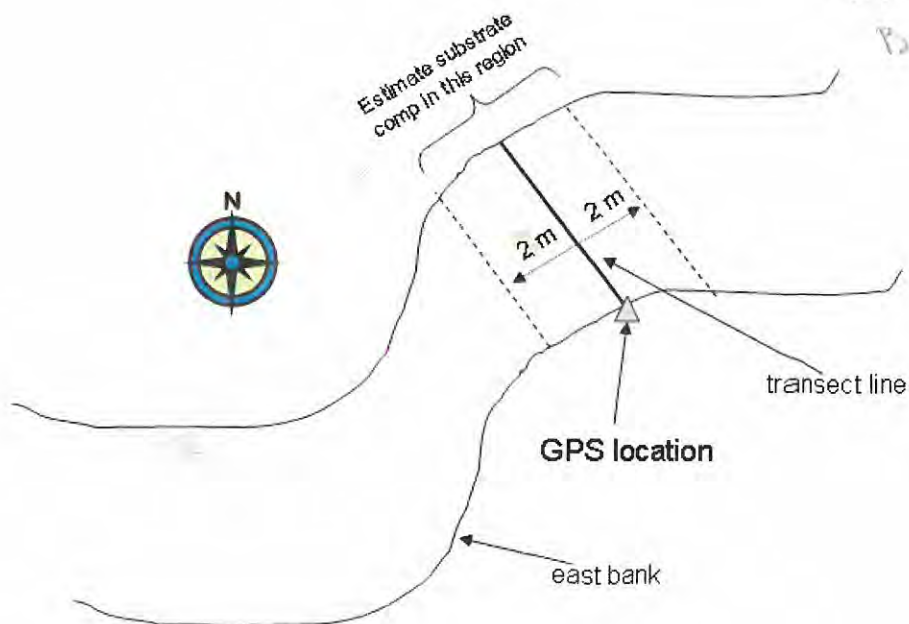
Please use your GPS unit to guide you to each waypoint.

If the waypoint is not in the river, walk to the closest location that is in the river and record on your data sheet the actual GPS location on the east bank.

If there is more than one channel, record on your data sheet the GPS location on the east bank of each channel.

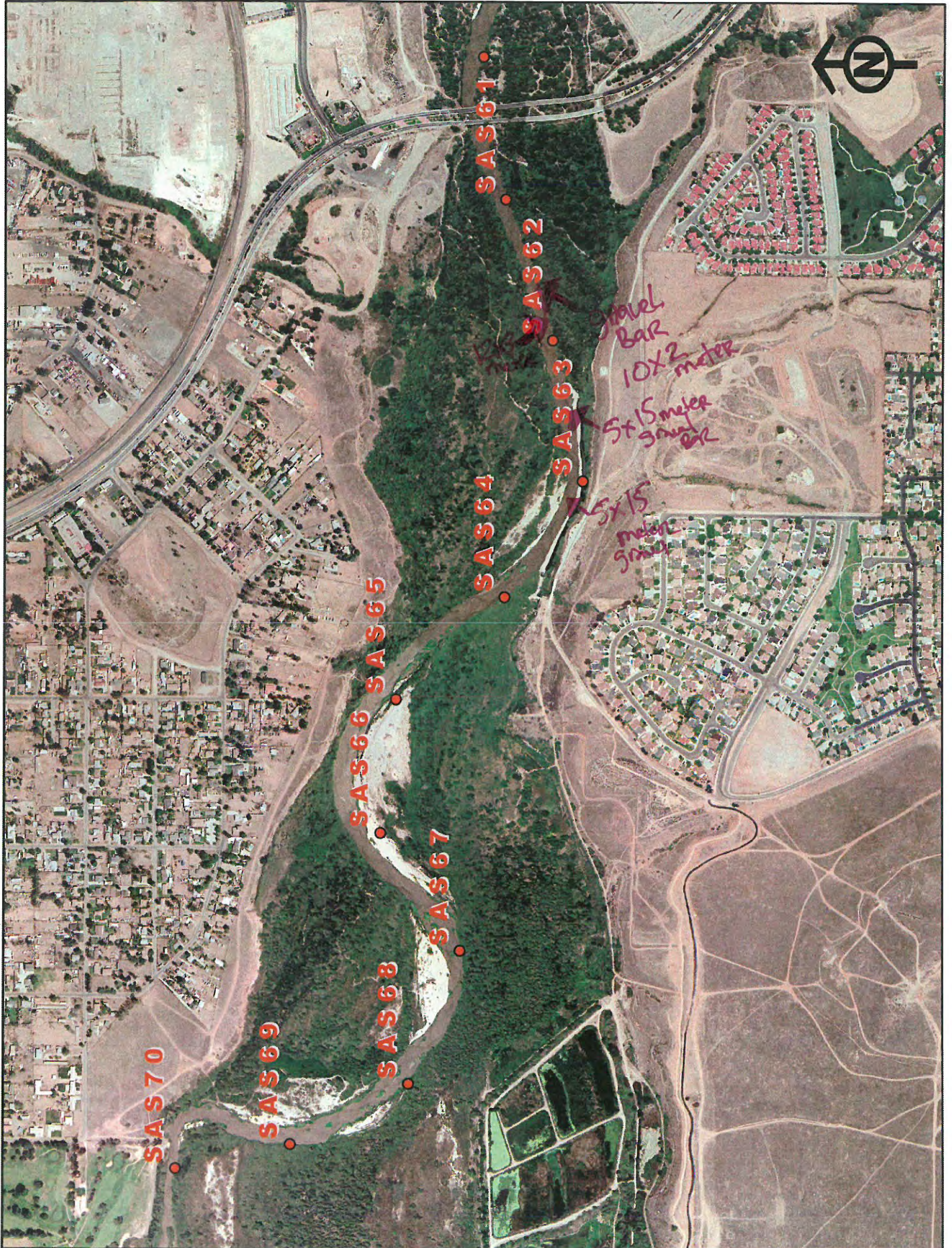
Based on the data collected in the previous River Walk, here are some tips:

- Please record all measurements using the metric system; there should be enough transect tapes/meter sticks with metric units for each group.
- 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%
- Record GPS locations using UTM coordinates



If you have any problems, please call ~~Donna Johnson at 951-664-2800~~ Bonnie ~~At~~ Johnson  
951-757-0782 or Talula Barbee 909-322-3187 or 951-2128736





SAS70

SAS69

SAS68

SAS67

SAS66

SAS65

SAS64

SAS63

SAS62

SAS61

Shovel Bar  
10x2 meter

5x15 meter  
gravel

5x15  
meter  
gravel



## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 61

**Date** 10/17/12

**Target UTM:** 456795

3758279

**Observers (writer/other)** Raffi Mills / Shalin Yoon / Quinn Shyu

**General Location** Van Buren Bridge down stream

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<u>11s 0456871</u> <u>3758088</u>		
Channel position	<u>South East</u>		
Width of Channel	<u>18 meter</u>		
Max Depth & location in channel	<u>40cm</u>		
Depth Edge East (~4" from edge)	<u>13cm</u>		
Depth Edge West (~4" from edge)	<u>10cm</u>		
Bank East %Veg Overhang	<u>97%</u>		
Bank West %Veg Overhang	<u>80%</u>		
Substrate % mud/silt	<u>10%</u>		
Substrate % sand	<u>87%</u>		
Substrate % gravel	<u>2%</u>		
Substrate % cobble	<u>0%</u>		
Substrate % boulder	<u>0%</u>		
Photo East Bank (time & #)	<u>2</u>		
Photo West Bank (time & #)	<u>4</u>		
Photo upstream (time & #)	<u>1</u>		
Photo downstream (time & #)	<u>3</u>		
Photo other (describe)	<u>N/A</u>		
Photo other (describe)	<u>N/A</u>		
Notes (e.g. Islands, Obstructions)	<u>Catch</u> <u>cushion</u> / <u>2 gravel bars</u> <u>Below 1st</u> <u>Point (see</u> <u>map)</u>		

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 62

**Date:** 10/17/12

**Target UTM:** 456509

3758182

**Observers (writer/other):** Bartl / Quinn / Skarin

**General Location:** 2nd point down from bridge

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	11s 0456529 3758113		
Channel position	South		
Width of Channel	<del>22</del> meter 30cm		
Max Depth & location in channel	42cm		
Depth Edge East (~4" from edge)	4cm		
Depth Edge West (~4" from edge)	15cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	38%		
Substrate % mud/silt	20%		
Substrate % sand	80%		
Substrate % gravel	0%		
Substrate % cobble	0%		
Substrate % boulder	0%		
Photo East Bank (time & #)	6		
Photo West Bank (time & #)	8		
Photo upstream (time & #)	5		
Photo downstream (time & #)	7		
Photo other (describe)	—		
Photo other (describe)	—		
Notes (e.g. Islands, Obstructions)	1 gravel bar below point (see map)		



## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 63      **Date** 10/17/12  
**Target UTM:**      456222      3758120  
**Observers (writer/other)** Paul/Sharil/Julia  
**General Location** 3rd down from Bridge

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<u>0456224</u> <u>3758168</u>	→ Same	
Channel position	<u>South</u>		
Width of Channel	<u>20meters, 30cm</u>	<u>9m to 80cm</u>	
Max Depth & location in channel	<u>44cm</u>	<u>18cm</u>	
Depth Edge East (~4" from edge)	<u>10.5cm</u>	<u>7cm</u>	
Depth Edge West (~4" from edge)	<u>6cm</u>	<u>2cm</u>	
Bank East %Veg Overhand	<u>60%</u>	<u>22%</u>	
Bank West %Veg Overhang	<u>98%</u>	<u>26%</u>	
Substrate % mud/silt	<u>20%</u>	<u>20%</u>	
Substrate % sand	<u>85%</u>	<u>79%</u>	
Substrate % gravel	<u>5%</u>	<u>1%</u>	
Substrate % cobble	<u>2%</u>	<u>0%</u>	
Substrate % boulder	<u>2%</u>	<u>0%</u>	
Photo East Bank (time & #)	<u>10</u>	<u>14</u>	
Photo West Bank (time & #)	<u>12</u>	<u>16</u>	
Photo upstream (time & #)	<u>9</u>	<u>13</u>	
Photo downstream (time & #)	<u>11</u>	<u>15</u>	
Photo other (describe)	<u>—</u>	<u>—</u>	
Photo other (describe)	<u>—</u>	<u>—</u>	
Notes (e.g. Islands, Obstructions)	<u>grave Bar Below (see map)</u> <u>0456167</u> <u>3758156</u>		

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 64 Date 10/17/12

Target UTM: 455986 3758279

Observers (writer/other) Brett / Quinn / Steve

General Location point # 64

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<u>0455986</u> <u>3758279</u>	<u>0455968</u> <u>3758249</u>	
Channel position	<u>Center</u>		
Width of Channel	<u>37 meter 10 cm</u>	<u>2.9 meter</u>	
Max Depth & location in channel	<u>39 cm</u>	<u>9 cm</u>	
Depth Edge East (~4" from edge)	<u>10 cm</u>	<u>6 cm</u>	
Depth Edge West (~4" from edge)	<u>4 cm</u>	<u>5 cm</u>	
Bank East %Veg Overhand	<u>98%</u>	<u>98%</u>	
Bank West %Veg Overhang	<u>100%</u>	<u>98%</u>	
Substrate % mud/silt	<u>5%</u>	<u>30%</u>	
Substrate % sand	<u>92%</u>	<u>70%</u>	
Substrate % gravel	<u>3%</u>	<u>0%</u>	
Substrate % cobble	<u>0%</u>	<u>0%</u>	
Substrate % boulder	<u>0%</u>	<u>0%</u>	
Photo East Bank (time & #)	<u>18</u>	<u>22</u>	
Photo West Bank (time & #)	<u>20</u>	<u>21</u>	
Photo upstream (time & #)	<u>17</u>	<u>21</u>	
Photo downstream (time & #)	<u>19</u>	<u>23</u>	
Photo other (describe)	<u>—</u>	<u>—</u>	
Photo other (describe)	<u>—</u>	<u>—</u>	
Notes (e.g. Islands, Obstructions)		<u>Photo of South Side channel</u>	



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 65                      Date 10/17/12

Target UTM:                      455777                      3758499

Observers (writer/other) Butt/Quinn/Shaw

General Location Point # 65

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	$\frac{0455799}{3758518}$	$\frac{0455786}{3758496}$	
Channel position	North	South	
Width of Channel	4.3 meters 70cm	3 meters 70cm	
Max Depth & location in channel	33cm	23cm	
Depth Edge East (~4" from edge)	4cm	6cm	
Depth Edge West (~4" from edge)	10cm	4cm	
Bank East %Veg Overhand	80%	50%	
Bank West %Veg Overhang	92%	85%	
Substrate % mud/silt	3%	50%	
Substrate % sand	6%	30%	
Substrate % gravel	91%	20%	
Substrate % cobble	0%	0%	
Substrate % boulder	0%	0%	
Photo East Bank (time & #)	31	27	
Photo West Bank (time & #)	33	29	
Photo upstream (time & #)	30	26	
Photo downstream (time & #)	32	28	
Photo other (describe)	—	—	
Photo other (describe)	—	—	
Notes (e.g. Islands, Obstructions)			

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 66      **Date** 10/17/12  
**Target UTM:**      455506      3758530  
**Observers (writer/other)** Brett/Shawn/Quinn  
**General Location** 66

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<u>0455544</u> <u>3758652</u>		
Channel position	<u>North</u>		
Width of Channel	<u>62 meters 30cm</u>		
Max Depth & location in channel	<u>26cm</u>		
Depth Edge East (~4" from edge)	<u>10cm</u>		
Depth Edge West (~4" from edge)	<u>13cm</u>		
Bank East %Veg Overhand	<u>100%</u>		
Bank West %Veg Overhang	<u>85%</u>		
Substrate % mud/silt	<u>6%</u>		
Substrate % sand	<u>8%</u>		
Substrate % gravel	<u>5%</u>		
Substrate % cobble	<u>0</u>		
Substrate % boulder	<u>0</u>		
Photo East Bank (time & #)	<u>35</u>		
Photo West Bank (time & #)	<u>37</u>		
Photo upstream (time & #)	<u>34</u>		
Photo downstream (time & #)	<u>36</u>		
Photo other (describe)	<u>—</u>		
Photo other (describe)	<u>—</u>		
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 67      **Date** 10/17/12

**Target UTM:**      455266      3758368

**Observers (writer/other)** Britt/Quin/Shari

**General Location** G7 Point

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<u>0455242</u> <u>3758618</u>		
Channel position	<u>North</u>		
Width of Channel	<u>Slack 50cm</u>		
Max Depth & location in channel	<u>24cm</u>		
Depth Edge East (~4" from edge)	<del>5cm</del> <u>5cm</u>		
Depth Edge West (~4" from edge)	<u>9cm</u>		
Bank East %Veg Overhand	<u>100%</u>		
Bank West %Veg Overhang	<u>87%</u>		
Substrate % mud/silt	<u>6%</u>		
Substrate % sand	<u>93%</u>		
Substrate % gravel	<u>2%</u>		
Substrate % cobble	<u>0%</u>		
Substrate % boulder	<u>0%</u>		
Photo East Bank (time & #)	<u>39</u>		
Photo West Bank (time & #)	<u>41</u>		
Photo upstream (time & #)	<u>38</u>		
Photo downstream (time & #)	<u>40</u>		
Photo other (describe)	<u>—</u>		
Photo other (describe)	<u>—</u>		
Notes (e.g. Islands, Obstructions)			

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name: SAS 68**                      **Date** 10/17/12

**Target UTM:**                      **454996**                      **3758472**

**Observers (writer/other)** Burt / Quinn / Shunil

**General Location** 68 point

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<u>0455008</u> <u>3758437</u>		
Channel position	<u>Center</u>		
Width of Channel	<u>43 meter</u>		
Max Depth & location in channel	<u>49cm</u>		
Depth Edge East (~4" from edge)	<u>18cm</u>		
Depth Edge West (~4" from edge)	<u>13cm</u>		
Bank East %Veg Overhand	<u>90%</u>		
Bank West %Veg Overhang	<u>90%</u>		
Substrate % mud/silt	<u>10%</u>		
Substrate % sand	<u>88%</u>		
Substrate % gravel	<u>2%</u>		
Substrate % cobble	<u>0%</u>		
Substrate % boulder	<u>0%</u>		
Photo East Bank (time & #)	<u>43</u>		
Photo West Bank (time & #)	<u>45 = 46</u>		
Photo upstream (time & #)	<u>42</u>		
Photo downstream (time & #)	<u>44</u>		
Photo other (describe)	<u>_____</u>		
Photo other (describe)	<u>_____</u>		
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 69      **Date** 10/17/12  
**Target UTM:**      454872      3758712  
**Observers (writer/other)** Butt/Quinn/Shairi  
**General Location** Sector 69i

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<u>0454900</u> <u>3758716</u>		
Channel position	<u>center</u>		
Width of Channel	<u>57 meter 10cm</u>		
Max Depth & location in channel	<u>54cm</u>		
Depth Edge East (~4" from edge)	<u>10cm</u>		
Depth Edge West (~4" from edge)	<u>4cm</u>		
Bank East %Veg Overhand	<u>90%</u>		
Bank West %Veg Overhang	<u>75%</u>		
Substrate % mud/silt	<u>6%</u>		
Substrate % sand	<u>6%</u>		
Substrate % gravel	<u>88%</u>		
Substrate % cobble	<u>0%</u>		
Substrate % boulder	<u>0%</u>		
Photo East Bank (time & #)	<u>48</u>		
Photo West Bank (time & #)	<u>50</u>		
Photo upstream (time & #)	<u>47</u>		
Photo downstream (time & #)	<u>49</u>		
Photo other (describe)	<u>—</u>		
Photo other (describe)	<u>—</u>		
Notes (e.g. Islands, Obstructions)	<u>Dead in Horse River</u>		

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 70                      **Date** 10/17/12  
**Target UTM:**                      454821                      3758944  
**Observers (writer/other)** Brett/Owain/Shami  
**General Location** 70 point

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<u>0454854</u> <u>3758939</u>		
Channel position	<u>North</u>		
Width of Channel	<u>25 metre 30cm</u>		
Max Depth & location in channel	<u>59cm</u>		
Depth Edge East (~4" from edge)	<u>5cm</u>		
Depth Edge West (~4" from edge)	<u>4cm</u>		
Bank East %Veg Overhand	<u>80%</u>		
Bank West %Veg Overhang	<u>95%</u>		
Substrate % mud/silt	<u>20%</u>		
Substrate % sand	<u>80%</u>		
Substrate % gravel	<u>0%</u>		
Substrate % cobble	<u>0%</u>		
Substrate % boulder	<u>0%</u>		
Photo East Bank (time & #)	<u>52</u>		
Photo West Bank (time & #)	<u>59</u>		
Photo upstream (time & #)	<u>51</u>		
Photo downstream (time & #)	<u>53</u>		
Photo other (describe)	<u>————</u>		
Photo other (describe)	<u>————</u>		
Notes (e.g. Islands, Obstructions)			



## Group8

Transects: **71 through 77**. The first car should park off on Bain Street. The second car should park upstream at the corner of Downey Street and 64<sup>th</sup> Street. Directions: Take 91 East. Exit Van Buren Blvd. Turn left onto Indiana then another quick left onto Van Buren Blvd. Take Van Buren over the river to Limonite Ave. Turn left onto Limonite Ave. Turn right onto Bain Street on park on right side of road (first car here). Turn left onto Limonite Ave. Turn right onto Downey Street. Park at end where Downey meets 64<sup>th</sup> Street (second car here).

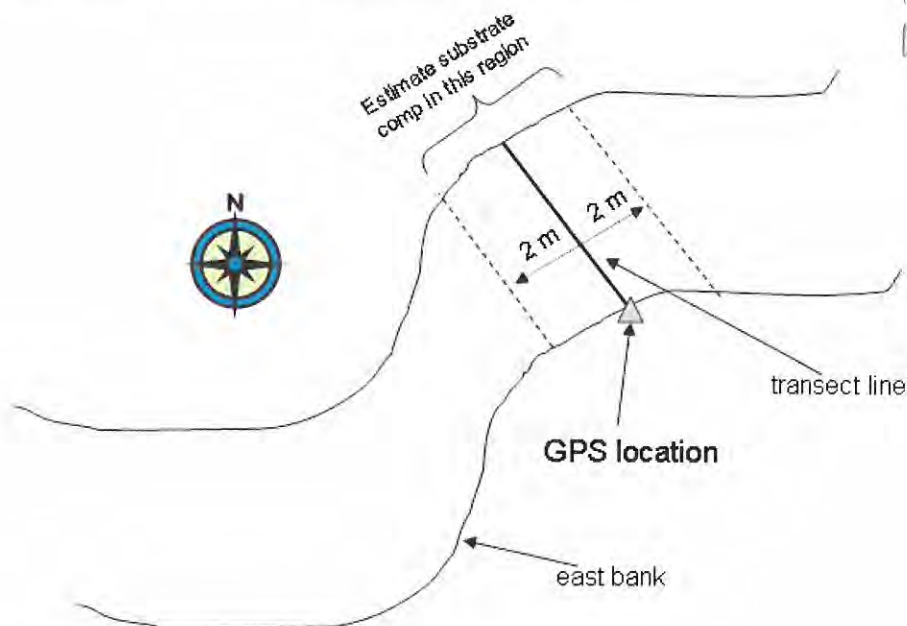
Please use your GPS unit to guide you to each waypoint.

If the waypoint is not in the river, walk to the closest location that is in the river and record on your data sheet the actual GPS location on the east bank.

If there is more than one channel, record on your data sheet the GPS location on the east bank of each channel.

Based on the data collected in the previous River Walk, here are some tips:

- Please record all measurements using the metric system; there should be enough transect tapes/meter sticks with metric units for each group.
- 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%
- Record GPS locations using UTM coordinates



MASA HWA  
Riverwalk for channel  
Angelica Bellodi

If you have any problems, please call ~~Dick Johnson at 714-393-7182~~, Bonnie ~~HWA~~ Johnson  
951-757-0782 or Talula Barbee 909-322-3187 or 951-212-8736



W SAS 76 Inlet



SAS 77

SAS 78

SAS 80

SAS 79

SAS 76

SAS 74

SAS 75

SAS 73

SAS 72

SAS 71





# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 71      **Date** Oct. 17, 2012  
**Target UTM:**      **454531**      **3758987**  
**Observers (writer/other)** A. Collada / R. Packard, M. Abe  
**General Location** Limonite, + Downey + Bain

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	0454531 3758991		
Channel position	7/A		
<del>15.0 m</del> Width of Channel	50.6 m		
<del>15.2 m</del> Max Depth & location in channel	30 cm 15.8 m		
Depth Edge East (~4" from edge)	5.5 cm		
Depth Edge West (~4" from edge)	25 cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	0		
Substrate % sand	100%		
Substrate % gravel	0		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	2156 65A3		
Photo West Bank (time & #)	2156 544		
Photo upstream (time & #)	2156 545		
Photo downstream (time & #)	2156 546		
Photo other (describe)	-		
Photo other (describe)	-		
Notes (e.g. Islands, Obstructions)	<del>Islands</del> ground		

Cobble: [454364 / 3759030]

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 72

**Date** Oct. 17, 2012

**Target UTM:** 454233

3759010

**Observers (writer/other)** A. Collada / R. Packard, M. Abe

**General Location** Limonite between Downey & Bain

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	454 240 3759037		
Channel position	1' A		
Width of Channel	21.8 m		
Max Depth & location in channel	36 cm 9.7 m		
Depth Edge East (~4" from edge)	10.8 cm		
Depth Edge West (~4" from edge)	32 cm		
Bank East %Veg Overhand	99%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	0		
Substrate % sand	100%		
Substrate % gravel	0		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	2156547		
Photo West Bank (time & #)	2156548		
Photo upstream (time & #)	2156549		
Photo downstream (time & #)	2156560		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			→ 454108 / 3759105

Scattered Cobble: [454071 / 3759073] → 15m downstream } also in area  
 " " [454050 / 3759128] SAS 73 } split from  
 River splits somewhere S. of SAS 72 } main channel  
 and rejoins ~~SAS 72~~ before SAS 73 (←)



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 73

**Date** Oct. 17 2012

**Target UTM:** 453978

3759083

**Observers (writer/other)** A. Collada/R. Packard, M. Abc

**General Location** Limonite between Downey & Bain

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	453 967 3759106		
Channel position			
Width of Channel	33 m		
Max Depth & location in channel	44 cm 19.3 m.		
Depth Edge East (~4" from edge)	4 cm.		
Depth Edge West (~4" from edge)	10 cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	0		
Substrate % sand	90%		
Substrate % gravel	0		
Substrate % cobble	10%		
Substrate % boulder	0		
Photo East Bank (time & #)	215661		
Photo West Bank (time & #)	215662		
Photo upstream (time & #)	215663		
Photo downstream (time & #)	215664		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Island		

Inlet ~50 m south of SAS 73 adjacent to strip (N-S)  
 cell tower (see map)

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 74

**Date** Oct. 17, 2012

**Target UTM:** 453722

3758913

**Observers (writer/other)** A. Collada / R. Packard M. Abc

**General Location** Limonite between Downey & Bann

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	453716 3759145		
Channel position	N/A		
Width of Channel	50.3 m.		
Max Depth & location in channel	57.0 cm 33.0 m		
Depth Edge East (~4" from edge)	5.5 cm		
Depth Edge West (~4" from edge)	7.0 cm		
Bank East %Veg Overhand	95%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt	1%		
Substrate % sand	96%		
Substrate % gravel	0		
Substrate % cobble	3%		
Substrate % boulder	0		
Photo East Bank (time & #)	215665		
Photo West Bank (time & #)	215666		
Photo upstream (time & #)	215667		
Photo downstream (time & #)	215668		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Sandbar		

River shifted N. from original point.



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 75

**Date:** Oct. 17, 2012

**Target UTM:** 453440

3758844

**Observers (writer/other):** A. Collada / R. Packard M. Abc

**General Location:** Limonite between Downey & Bain

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

343 m from orig pt.

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	453480 3759183		
Channel position	N/A		
Width of Channel	42.0 m		
Max Depth & location in channel	30.0 cm 18.2 m		
Depth Edge East (~4" from edge)	24.0 cm.		
Depth Edge West (~4" from edge)	40 cm.		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	99%		
Substrate % mud/silt	0		
Substrate % sand	98%		
Substrate % gravel	2%		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	215669		
Photo West Bank (time & #)	215670		
Photo upstream (time & #)	215671		
Photo downstream (time & #)	215672		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 76

Date Oct. 17, 2012

Target UTM: 453424

3759107

Observers (writer/other) A. Collada / R. Packard, M. Abe

General Location Limonite, between Jarmey & Bean

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	453 448 3759189		
Channel position	N/A		
Width of Channel	440m		
Max Depth & location in channel	31 6.3 m.		
Depth Edge East (~4" from edge)	7.5 cm.		
Depth Edge West (~4" from edge)	3.0 cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	95%		
Substrate % mud/silt	2%		
Substrate % sand	97%		
Substrate % gravel	1%		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	215673		
Photo West Bank (time & #)	215674		
Photo upstream (time & #)	215675		
Photo downstream (time & #)	215676		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 77

Date Oct. 17, 2012

Target UTM: 453335

3759316

Observers (writer/other) A. Collada, R. Packard, M. Abc

General Location Limonite between Downey + Bam

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

(adj.)  
(adj.)

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	453330 3759200	453326 3759225	
Channel position	East	West	
Width of Channel	75.6 m	2 18.7 cm	
Max Depth & location in channel	16.0 cm 7.6 m	35 cm	
Depth Edge East (~4" from edge)	5.0 cm	2.7 cm	
Depth Edge West (~4" from edge)	14.0 cm	3.0 cm	
Bank East %Veg Overhand	100%	95%	
Bank West %Veg Overhang	90%	100%	
Substrate % mud/silt	∅	18%	
Substrate % sand	100%	82%	
Substrate % gravel	∅	∅	
Substrate % cobble	∅	∅	
Substrate % boulder	∅	∅	
Photo East Bank (time & #)	215677	215681	
Photo West Bank (time & #)	215678	215682	
Photo upstream (time & #)	215679	215683	
Photo downstream (time & #)	215680	215684	
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

## Group9

Transects: **78 through 82**. The first car should park at the Park off of Ridgeview Ave. The second car should park upstream off on Bain Street. Directions: Take 91 East. Exit Van Buren Blvd. Turn left onto Indiana then another quick left onto Van Buren Blvd. Take Van Buren over the river to Limonite Ave. Turn left onto Limonite Ave. Turn left onto Ridgeview Ave. and park in the Park on the left side (first car here). Turn around and turn right onto Limonite Ave. Turn left onto Bain Street on park on right side of road (second car here).

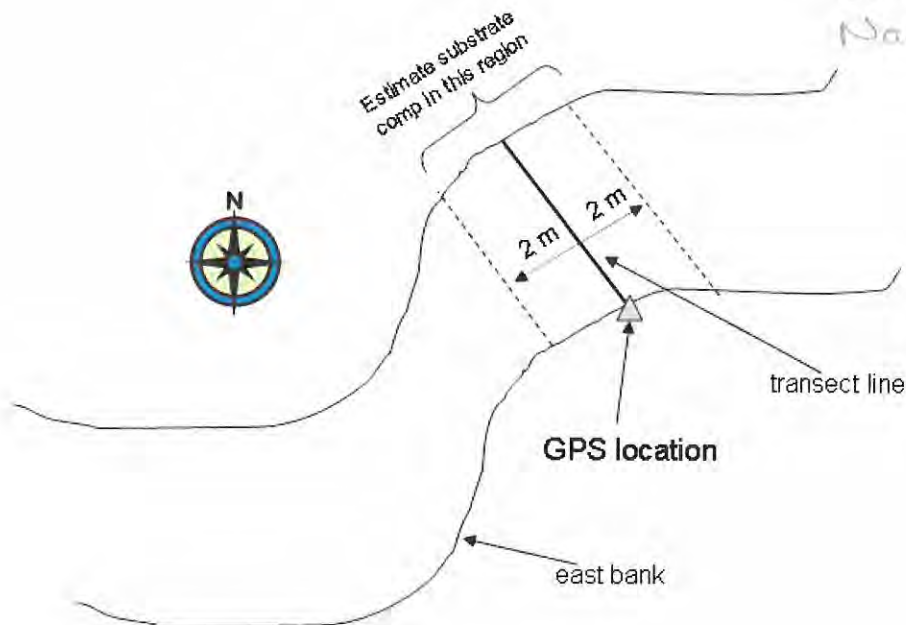
Please use your GPS unit to guide you to each waypoint.

If the waypoint is not in the river, walk to the closest location that is in the river and record on your data sheet the actual GPS location on the east bank.

If there is more than one channel, record on your data sheet the GPS location on the east bank of each channel.

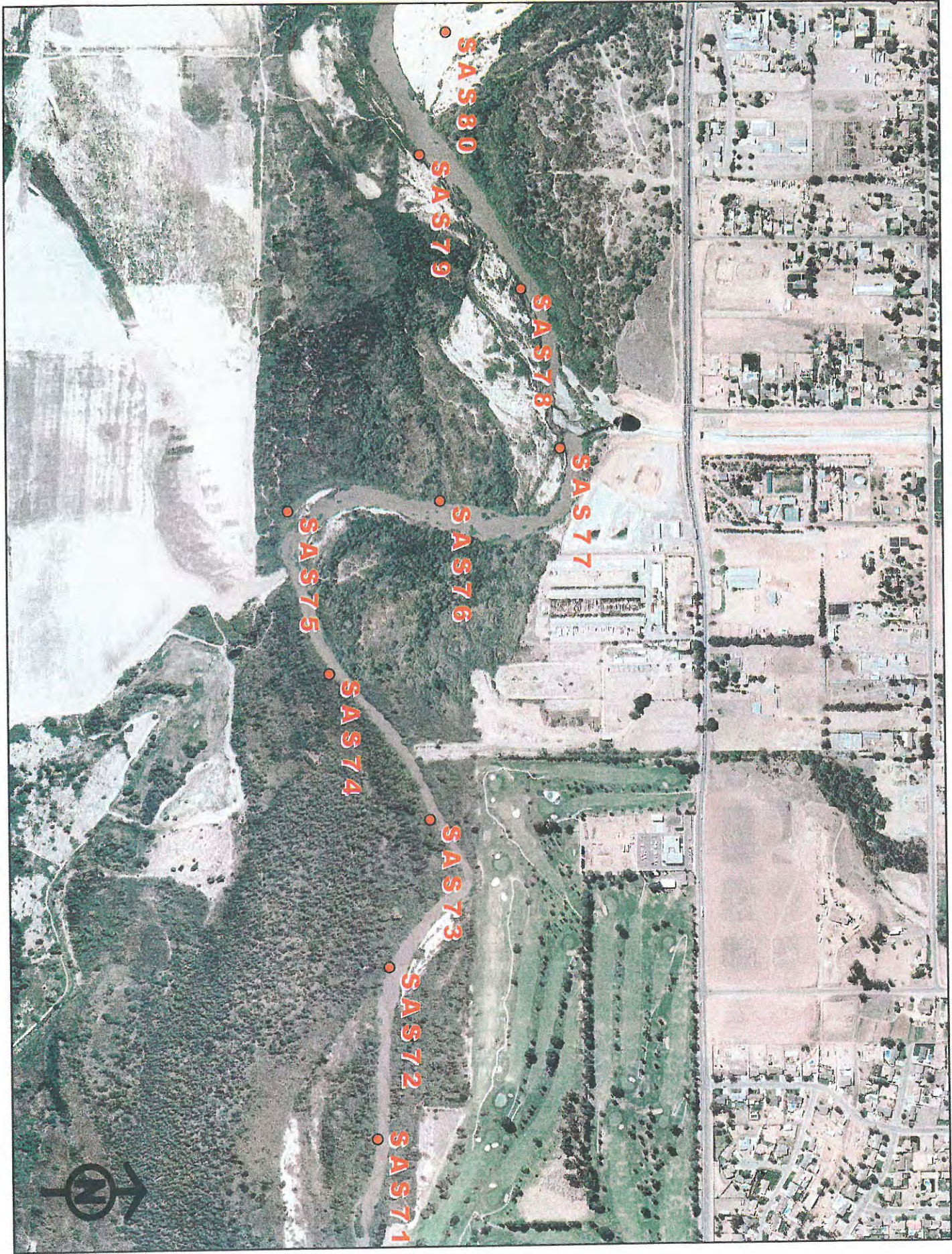
Based on the data collected in the previous River Walk, here are some tips:

- Please record all measurements using the metric system; there should be enough transect tapes/meter sticks with metric units for each group.
- 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%
- Record GPS locations using UTM coordinates



If you have any problems, please call ~~Dick Zorn~~ at 714-438-7282, Bonnie ~~USA~~ Johnson 951-757-0782 or Talula Barbee 909-322-3187 or 951-212-8736





SAST80

SAST79

SAST78

SAST77

SAST76

SAST75

SAST74

SAST73

SAST72

SAST71









# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 78

**Date** 10/17/2012

**Target UTM:** 453057

3759250

**Observers (writer/other)** K. FREEBURN, N. KRUPNAR, J. GIBSON

**General Location**

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	453024 3759211		
Channel position	East		
Width of Channel	44.5 m		
Max Depth & location in channel	0.45 m wedge		
Depth Edge East (~4" from edge)	0.01 m		
Depth Edge West (~4" from edge)	0.08 m		
Bank East %Veg Overhand	50%		
Bank West %Veg Overhang	0%		
Substrate % mud/silt	1%		
Substrate % sand	99%		
Substrate % gravel	0%		
Substrate % cobble	0%		
Substrate % boulder	0%		
Photo East Bank (time & #)	9:48 am #792		
Photo West Bank (time & #)	9:48 am #783		
Photo upstream (time & #)	9:48 am #794		
Photo downstream (time & #)	9:48 am #785		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Island 3m wide		

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 79

Date 10/17/2012

Target UTM: 452825

3759076

Observers (writer/other) J. Gibson, N. Krupnik, K. Freeburn

**General Location**

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	452806 3759233		
Channel position	West		
Width of Channel	47.9 m		
Max Depth & location in channel	0.37 m		
Depth Edge East (~4" from edge)	0.04 m		
Depth Edge West (~4" from edge)	0.09 m		
Bank East %Veg Overhand	0%		
Bank West %Veg Overhang	0%		
Substrate % mud/silt	1%		
Substrate % sand	98%		
Substrate % gravel	1%		
Substrate % cobble	0%		
Substrate % boulder	0%		
Photo East Bank (time & #)	10:06 am # 785		
Photo West Bank (time & #)	10:06 am # 786		
Photo upstream (time & #)	10:06 am # 787		
Photo downstream (time & #)	10:06 am # 788		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 80

**Date** 10/17/2012

**Target UTM:** 452612

3759122

**Observers (writer/other)** K. Freeburn, N. Krupnik, J. Gibson

**General Location**

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	452626 3759115	452604 3759128	
Channel position	EAST	WEST	
Width of Channel	11.6	50m	
Max Depth & location in channel	0.22 m	0.25 m	
Depth Edge East (~4" from edge)	0.03 m	0.04 m	
Depth Edge West (~4" from edge)	0.04 m	0.04 m	
Bank East %Veg Overhand	0	0	
Bank West %Veg Overhang	0	0	
Substrate % mud/silt	1	2	
Substrate % sand	98	96	
Substrate % gravel	1	2	
Substrate % cobble	0	0	
Substrate % boulder	0	0	
Photo East Bank (time & #)	791 10:21	795 10:29	
Photo West Bank (time & #)	792 "	796 "	
Photo upstream (time & #)	793 "	797 "	
Photo downstream (time & #)	794 "	798 "	
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)		4 <sup>th</sup> island 7m 2 <sup>nd</sup> island 2.5m	

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 81                      **Date** 10/17/12  
**Target UTM:**                      452445                      3759316  
**Observers (writer/other)** GIBSON KRUMHOLTZ, ERIQSON

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	452517 3759093		
Channel position	EAST		
Width of Channel	60.7 m		
Max Depth & location in channel	0.31 m		
Depth Edge East (~4" from edge)	0.15 m		
Depth Edge West (~4" from edge)	0.02 m		
Bank East %Veg Overhand	0		
Bank West %Veg Overhang	0		
Substrate % mud/silt	2		
Substrate % sand	97		
Substrate % gravel	1		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	799 10:50		
Photo West Bank (time & #)	800 "		
Photo upstream (time & #)	801 "		
Photo downstream (time & #)	802 "		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	few small islands		



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 82                      **Date** 10/17/12  
**Target UTM:**                      452232                      3759327

**Observers (writer/other)** GIBSON, N. KRUPNIK, FRESSBURG

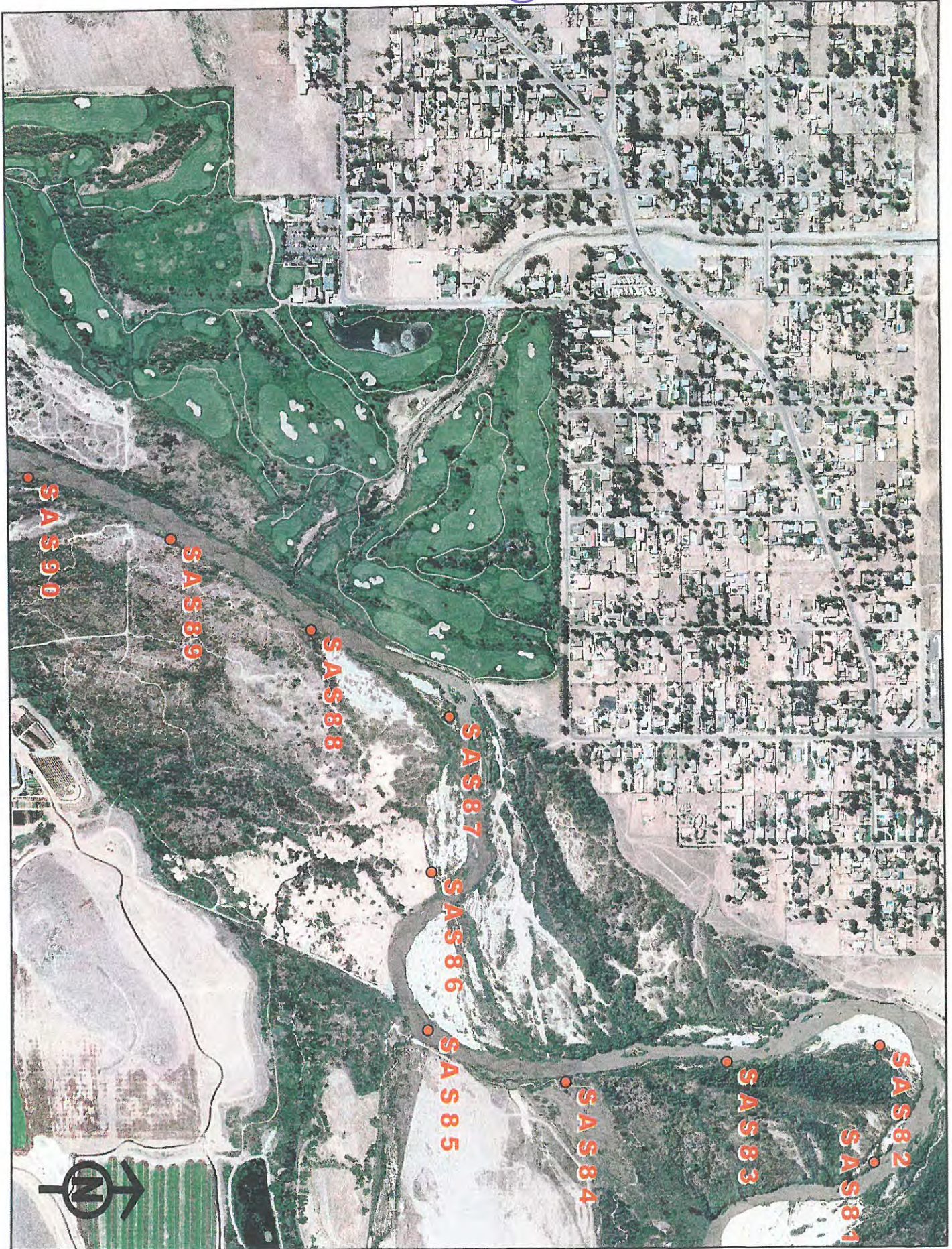
**General Location**

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

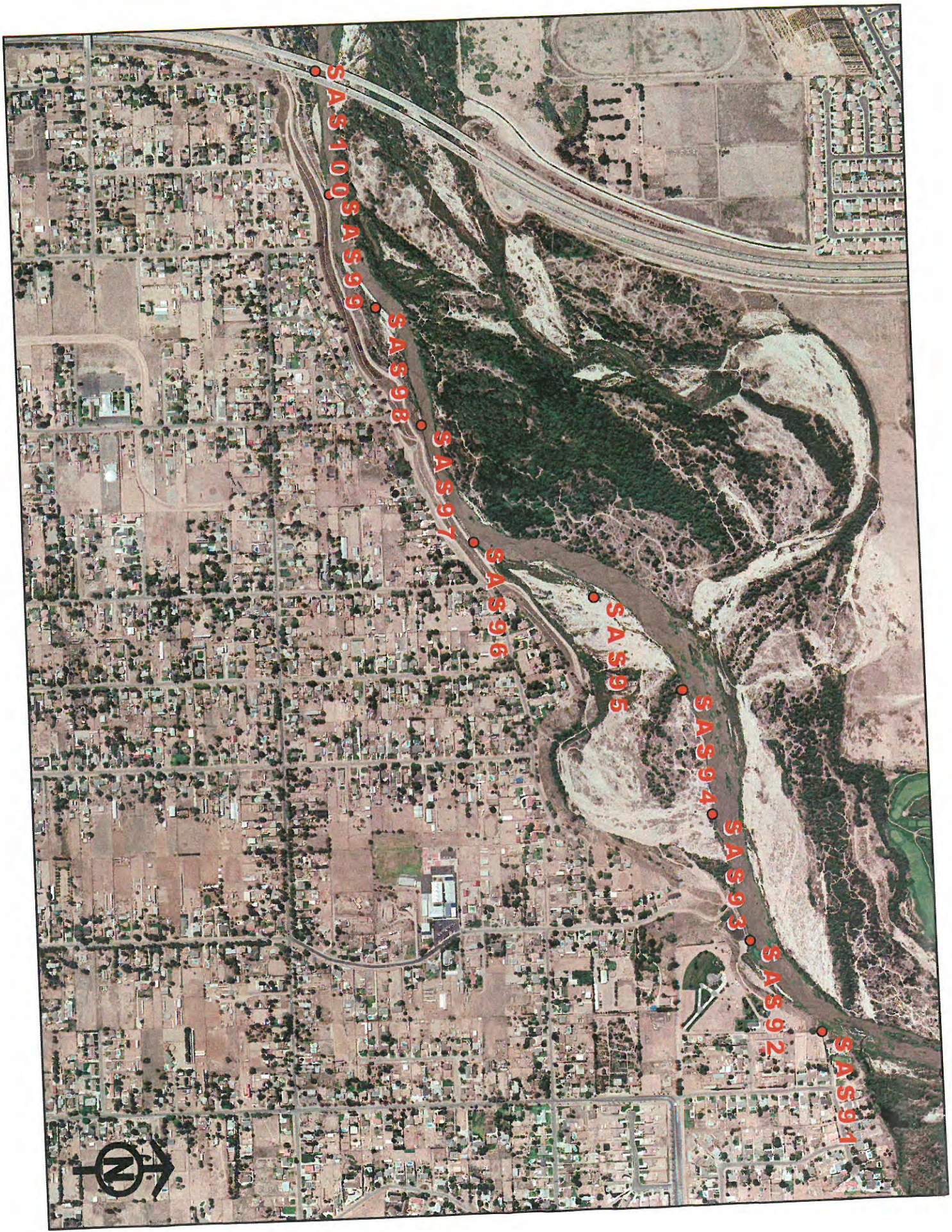
OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	452597 3754075	452560 3759092	
Channel position	EAST	EAST	
Width of Channel	12.6 m	41 m	
Max Depth & location in channel	0.24 m	0.33 m	
Depth Edge East (~4" from edge)	0.05 m	0.05 m	
Depth Edge West (~4" from edge)	0.03 m	0.05 m	
Bank East %Veg Overhand	0	0	
Bank West %Veg Overhang	0	0	
Substrate % mud/silt	1	1	
Substrate % sand	99	98	
Substrate % gravel	0	1	
Substrate % cobble	0	0	
Substrate % boulder	0	0	
Photo East Bank (time & #)	807 11:04	10:59am #803	
Photo West Bank (time & #)	808	#804	
Photo upstream (time & #)	809	#805	
Photo downstream (time & #)	810	#806	
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			



Group 10







SAS 1000

SAS 999

SAS 998

SAS 997

SAS 996

SAS 995

SAS 994

SAS 993

SAS 992

SAS 991





# SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS ~~83~~ <sup>83</sup>      Date \_\_\_\_\_ #83  
 Target UTM:      451907      3758507  
 Observers (writer/other) Jen  
 General Location 10

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	*83	83 real <sup>UTM</sup> 115-04052465 3758902	
Channel position	NB	Center	
Width of Channel		60 m	
Max Depth & location in channel		31 cm	
Depth Edge East (~4" from edge)		25 cm	
Depth Edge West (~4" from edge)		20 cm	
Bank East %Veg Overhand		100	
Bk West %Veg Overhand		60	
State % mud/silt		0	
State % sand		100%	
State % gravel		0	
State % cobble		0	
State % boulder		0	
East Bank (#)		108	
West Bank (#)		109	
Upstream (#)	204	106	
Downstream (#)	205	107	
Islands, (ns)		Multiple islands on channel	

Sand Bar  
E and W



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 84

Date 10/17/12 # 891

Target UTM: 452294

3758751  
3758716      02

Observers (writer/other) 1/5/12/12

### General Location

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<u>115 045266</u> <u>3758716</u>		
Channel position	<u>Levee</u>		
Width of Channel	<u>52m</u>		
Max Depth & location in channel	<u>48cm</u>		
Depth Edge East (~4" from edge)	<u>17cm</u>		
Depth Edge West (~4" from edge)	<del>15cm</del> <u>7cm</u>		
Bank East %Veg Overhand	<u>100</u>		
Bank West %Veg Overhang	<u>100</u>		
Substrate % mud/silt	<u>0</u>		
Substrate % sand	<u>100</u>		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)			
Photo West Bank (time & #)			
Photo upstream (time & #)	<u>210</u>		
Photo downstream (time & #)	<u>211</u>		
Photo other (describe) <u>east</u>	<u>212</u>		
Photo other (describe) <u>west</u>	<u>213</u>		
Notes (e.g. Islands, Obstructions)	<u>1 sand Bar E W</u>		

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 88 Date \_\_\_\_\_

Target UTM: 45 2260 3759045

Observers (writer/other) J Torres

General Location Waypoint 4

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	6451901 <sup>4</sup> 3758659 <i>Way</i>		
Channel position	<i>center</i>		
Width of Channel	<i>29 m</i>		
Max Depth & location in channel	<i>42 cm</i>		
Depth Edge East (~4" from edge)	<i>5 cm</i>		
Depth Edge West (~4" from edge)	<del>42 cm</del> <i>15 cm</i>		
Bank East %Veg Overhand	<i>100</i>		
Bank West %Veg Overhang	<i>100</i>		
Substrate % mud/silt			
Substrate % sand	<i>100</i>		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	<i>220</i>		
Photo West Bank (time & #)	<i>221</i>		
Photo upstream (time & #)	<i>218</i>		
Photo downstream (time & #)	<i>219</i>		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	<i>East side sand bar</i>		



# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 87                      Date \_\_\_\_\_  
 Target UTM:            451621            3758542  
 Observers (writer/other) D Orr

**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)			
Channel position	west		
Width of Channel	61 m		
Max Depth & location in channel	29 cm		
Depth Edge East (~4" from edge)	6 cm		
Depth Edge West (~4" from edge)	7.5 cm		
Bank East %Veg Overhand	100		
Bank West %Veg Overhang	100		
Substrate % mud/silt	0		
Substrate % sand	92%		
Substrate % gravel	<del>8%</del> 8%		
Substrate % cobble	0		
Substrate % boulder	0		
Photo East Bank (time & #)	224		
Photo West Bank (time & #)	225		
Photo upstream (time & #)	222		
Photo downstream (time & #)	223		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	one sandbar at west bank		

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

Transect Name: SAS 88

Date \_\_\_\_\_

#88

Target UTM: 451459

3758290

Observers (writer/other) \_\_\_\_\_

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	8		
Channel position			
Width of Channel	60		
Max Depth & location in channel	44		
Depth Edge East (~4" from edge)	5		
Depth Edge West (~4" from edge)	3		
Bank East %Veg Overhand	100		
Bank West %Veg Overhang	100		
Substrate % mud/silt			
Substrate % sand	<del>100</del> 98%		
Substrate % gravel	2%		
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)			
Photo West Bank (time & #)			
Photo upstream (time & #)	229		
Photo downstream (time & #)	230		
Photo other (describe) <i>East</i>	231		
Photo other (describe) <i>West</i>	232		
Notes (e.g. Islands, Obstructions)	Sand Bar E W middle		



## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 89                      Date \_\_\_\_\_

Target UTM:                      451288                      3758035

Observers (writer/other) \_\_\_\_\_

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<del>53</del>		
Channel position			
Width of Channel	03		
Max Depth & location in channel	17		
Depth Edge East (~4" from edge)	18cm		
Depth Edge West (~4" from edge)	19		
Bank East %Veg Overhand	100		
Bank West %Veg Overhang	100		
Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)			
Photo West Bank (time & #)			
Photo upstream (time & #)	233		
Photo downstream (time & #)	234		
Photo other (describe) <i>east</i>	235		
Photo other (describe) <i>west</i>	236		
Notes (e.g. Islands, Obstructions)			

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name: SAS 90**                      **Date** \_\_\_\_\_  
**Target UTM: 451172**                      **3757775**  
**Observers (writer/other)** \_\_\_\_\_  
**General Location** \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	↖		
Channel position	East		
Width of Channel	56 M		
Max Depth & location in channel	<del>34</del> 34		
Depth Edge East (~4" from edge)	8		
Depth Edge West (~4" from edge)	20		
Bank East %Veg Overhand	100		
Bank West %Veg Overhang	100		
Substrate % mud/silt			
Substrate % sand	<del>100</del> 98		
Substrate % gravel	2		
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	239		
Photo West Bank (time & #)	240		
Photo upstream (time & #)	237		
Photo downstream (time & #)	238		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			



## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 91                      Date \_\_\_\_\_

Target UTM:            451064            3757493

Observers (writer/other) \_\_\_\_\_

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	<del>316</del>		
Channel position	East		
Width of Channel	58 M		
Max Depth & location in channel	28 1/2 cm		
Depth Edge East (~4" from edge)	7 1/2 cm		
Depth Edge West (~4" from edge)	8 1/2 cm		
Bank East %Veg Overhand	100		
Bank West %Veg Overhang	100		
Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	243		
Photo West Bank (time & #)	244		
Photo upstream (time & #)	241		
Photo downstream (time & #)	242		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

Transect Name: SAS 92                      Date \_\_\_\_\_

Target UTM:                      450843                      3757334

Observers (writer/other) \_\_\_\_\_

General Location \_\_\_\_\_

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)			
Channel position	East		
Width of Channel	39		
Max Depth & location in channel	27 cm		
Depth Edge East (~4" from edge)	27 cm		
Depth Edge West (~4" from edge)	7 1/2		
Bank East %Veg Overhand	60		
Bank West %Veg Overhang	100		
Substrate % mud/silt			
Substrate % sand	100		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	248		
Photo West Bank (time & #)	247		
Photo upstream (time & #)	246		
Photo downstream (time & #)	245		
Photo other (describe)			
Photo other (describe)			
Notes (e.g. Islands, Obstructions)	Sand Bar West		



## Group11

CE

Transects: **93 through 100**. The first car should park at the end of Woodward Ave. The second car should park upstream at the end of Pedley Ave. Directions: Take 91 West to the 15 North. Exit 6<sup>th</sup> Street and right onto 6<sup>th</sup> Street. Turn left onto Sierra Ave. Turn right onto Detroit Street. Turn left on Woodward Ave. (first car here). From Woodward Ave. turn left onto Detroit Street. Turn left onto Valley View Ave. Turn right onto River Drive. Turn left onto Pedley Ave. and park at the end of Ave. (second car here).

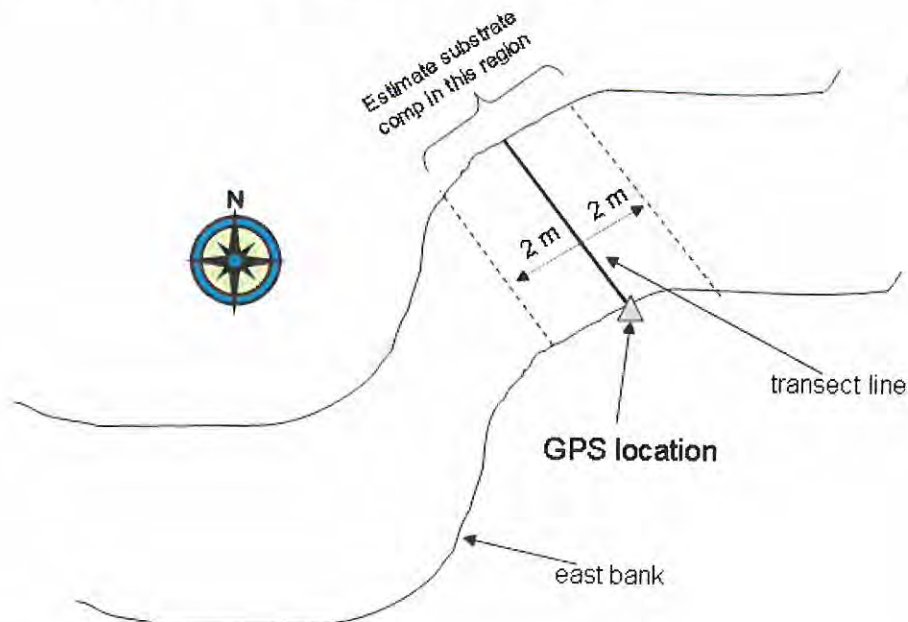
Please use your GPS unit to guide you to each waypoint.

If the waypoint is not in the river, walk to the closest location that is in the river and record on your data sheet the actual GPS location on the east bank.

If there is more than one channel, record on your data sheet the GPS location on the east bank of each channel.

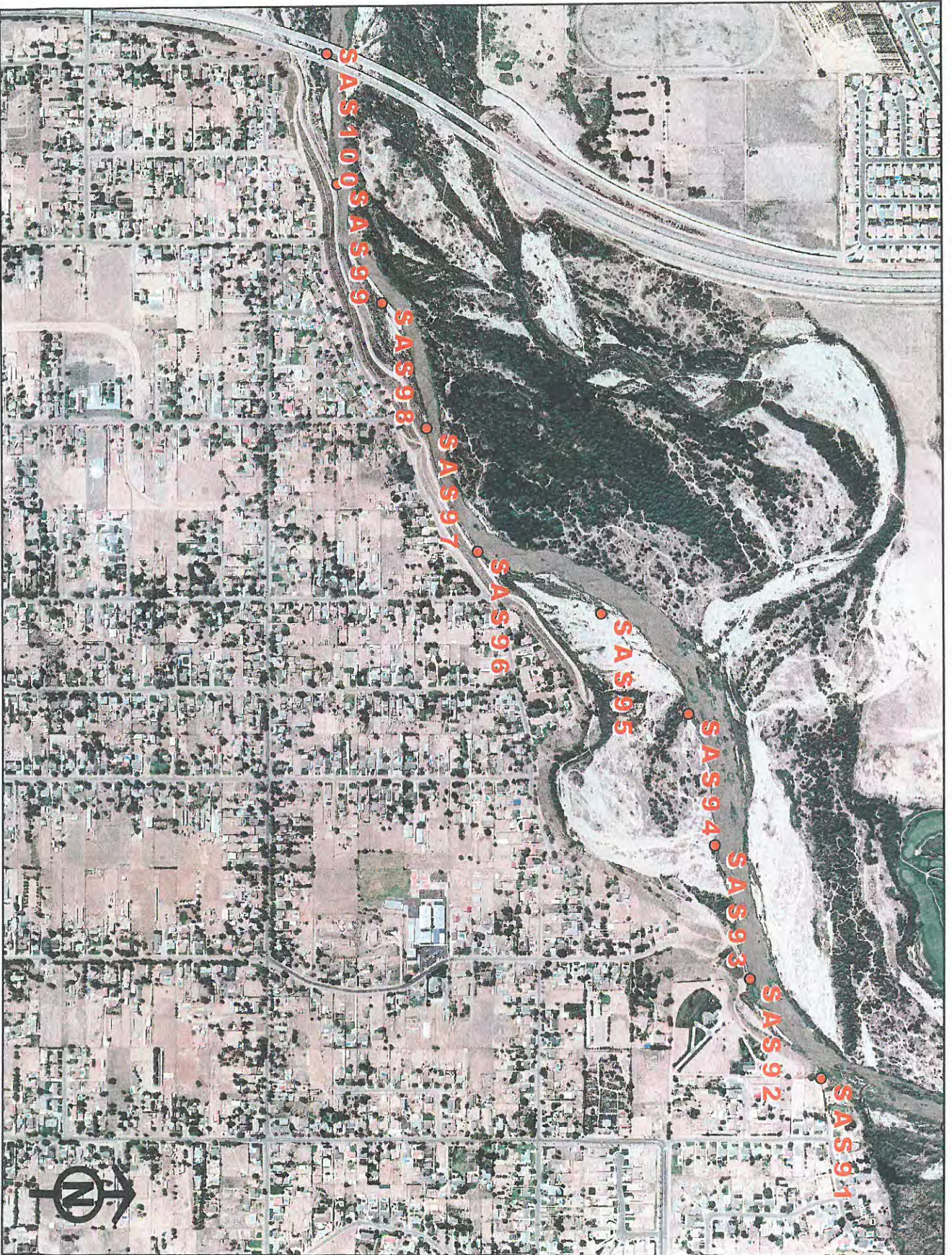
Based on the data collected in the previous River Walk, here are some tips:

- Please record all measurements using the metric system; there should be enough transect tapes/meter sticks with metric units for each group.
- 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%
- Record GPS locations using UTM coordinates



If you have any problems, please call ~~951-757-0782~~ ~~951-757-0782~~ Bonnie Johnson 951-757-0782 or Talula Barbee 909-322-3187 or 951-212-5736





SAS 100

SAS 99

SAS 98

SAS 97

SAS 96

SAS 95

SAS 94

SAS 93

SAS 92

SAS 91





## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 93

**Date:** 10/17/2012 9:37 am

**Target UTM:** 450545

3757257

**Observers (writer/other):** Shagwood / Swanson

**General Location:** SAS 93 / Down stream of Redly

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	Same		
Channel position	Middle		
Width of Channel	50 m		
Max Depth & location in channel	32 cm West Bank		
Depth Edge East (~4" from edge)	19 cm		
Depth Edge West (~4" from edge)	7 cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt			
Substrate % sand	100%		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	9:37 am 1		
Photo West Bank (time & #)		2	
Photo upstream (time & #)			3
Photo downstream (time & #)			4
Photo other (describe)	NONE		
Photo other (describe)	NONE		
Notes (e.g. Islands, Obstructions)	NONE		

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 94

**Date:** 10/17/2012

**Target UTM:** 450251

3757199

**Observers (writer/other):** Waymond Swenson

**General Location:** between Reddy & IS fmg

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OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	Same		
Channel position	Middle		
Width of Channel			
Max Depth & location in channel	35 cm West Bank		
Depth Edge East (~4" from edge)	12 cm		
Depth Edge West (~4" from edge)	35 cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt			
Substrate % sand	100%		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	9:58 am 1		
Photo West Bank (time & #)		2	
Photo upstream (time & #)		3	
Photo downstream (time & #)		4	
Photo other (describe)	NONE		
Photo other (describe)	NONE vegetated		
Notes (e.g. Islands, Obstructions)	Island just downstream of transect		



## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 95      **Date:** 10/17/2012  
**Target UTM:** 450027      3757005  
**Observers (writer/other):** Joseph Lund / Swenson  
**General Location:** between Pedly + 15th

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	44993 3757098		
Channel position	Middle		
Width of Channel	73M		
Max Depth & location in channel	26 cm <sup>Center</sup>		
Depth Edge East (~4" from edge)	10 cm		
Depth Edge West (~4" from edge)	18 cm		
Bank East %Veg Overhand	95%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt			
Substrate % sand	100%		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	10:22 1		
Photo West Bank (time & #)		2	
Photo upstream (time & #)			3
Photo downstream (time & #)			4
Photo other (describe)	None		
Photo other (describe)	None		
Notes (e.g. Islands, Obstructions)	partially vegetated island w/in transect		

# SAWA 2012 River Walk

## Santa Ana River Habitat Evaluation

**Transect Name:** SAS 96

**Date** 10/17/2012

**Target UTM:** 449887

3756731

**Observers (writer/other)** Shaggeard/Sunser

**General Location** between Reddy + 15 Hwy

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	449754 3756660		
Channel position	East Bank		
Width of Channel	24.3 m		
Max Depth & location in channel	40 cm <sup>East Bank</sup>		
Depth Edge East (~4" from edge)	10 cm		
Depth Edge West (~4" from edge)	9 cm		
Bank East %Veg Overhand	10%		
Bank West %Veg Overhang	40%		
Substrate % mud/silt			
Substrate % sand	100%		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	10:58 1		
Photo West Bank (time & #)	2		
Photo upstream (time & #)	3		
Photo downstream (time & #)	4		
Photo other (describe)	Photo of Island Looking Downstream 10:32		
Photo other (describe)			
Notes (e.g. Islands, Obstructions)			

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Large vegetated Island between transects 95 + 96.

UTM: 449866 3757076 = Upstream

UTM 449770 3756949 = Downstream



## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 97

**Date:** 10/17/2012

**Target UTM:** 449609

3756618

**Observers (writer/other):** Sheppard / Seena

**General Location:** Between Peelly + 15 fwy

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	449593 3756619		
Channel position	East Bank		
Width of Channel	24m		
Max Depth & location in channel	45cm Center		
Depth Edge East (~4" from edge)	10cm		
Depth Edge West (~4" from edge)	2cm		
Bank East %Veg Overhand	50%		
Bank West %Veg Overhang	0%		
Substrate % mud/silt			
Substrate % sand	100%		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	11:5am 1		
Photo West Bank (time & #)		2	
Photo upstream (time & #)			3
Photo downstream (time & #)			4
Photo other (describe)	NONE		
Photo other (describe)	NONE		
Notes (e.g. Islands, Obstructions)	NONE		

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 98

**Date** 10/17/2012

**Target UTM:** 449330

3756522

**Observers (writer/other)** Shoppard / Swenson

**General Location** Between Peolly + 15 fwy

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	Same		
Channel position	Near East Bank		
Width of Channel	20m		
Max Depth & location in channel	45cm West Bank		
Depth Edge East (~4" from edge)	16cm		
Depth Edge West (~4" from edge)	25cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	100%		
Substrate % mud/silt			
Substrate % sand	100%		
Substrate % gravel			
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)			
Photo West Bank (time & #)	11:34	1	
Photo upstream (time & #)		2	
Photo downstream (time & #)		3	
Photo other (describe)		4	
Photo other (describe)	none		
Notes (e.g. Islands, Obstructions)	none		



## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 99

**Date** 10/17/2012

**Target UTM:** 449061

3756424

**Observers (writer/other)** Sheppard/Swensen

**General Location** Between Pedlar & 15th

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	Same		
Channel position	East Bank		
Width of Channel	29.5m		
Max Depth & location in channel	50cm (center)		
Depth Edge East (~4" from edge)	13cm		
Depth Edge West (~4" from edge)	9cm		
Bank East %Veg Overhand	60%		
Bank West %Veg Overhang	60%		
Substrate % mud/silt			
Substrate % sand	98%		
Substrate % gravel	2%		
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	11:52am 1		
Photo West Bank (time & #)		2	
Photo upstream (time & #)			3
Photo downstream (time & #)			4
Photo other (describe)	None		
Photo other (describe)	None		
Notes (e.g. Islands, Obstructions)	None		

## SAWA 2012 River Walk Santa Ana River Habitat Evaluation

**Transect Name:** SAS 100

**Date** 10/17/2012

**Target UTM:** 448771

3756402

**Observers (writer/other)** Sheppard/Swanson

**General Location** @ 15 fwy

Give or send all data sheets and photos to Talula Barbee (Phone: 951-212-8736; address: ATTN: Talula Barbee, Orange County Water District, 14980 River Rd., Corona, CA 92880; email: [tbarbee@ocwd.com](mailto:tbarbee@ocwd.com))

OBSERVATIONS	CHANNEL #1	CHANNEL #2	CHANNEL #3
Actual GPS coordinates in UTM (@ East bank)	Same		
Channel position	East Bank		
Width of Channel	32.4m		
Max Depth & location in channel	26cm		
Depth Edge East (~4" from edge)	10cm		
Depth Edge West (~4" from edge)	14cm		
Bank East %Veg Overhand	100%		
Bank West %Veg Overhang	65%		
Substrate % mud/silt			
Substrate % sand	98%		
Substrate % gravel	2%		
Substrate % cobble			
Substrate % boulder			
Photo East Bank (time & #)	12:10 pm 4		
Photo West Bank (time & #)		12	
Photo upstream (time & #)		2	
Photo downstream (time & #)		3	
Photo other (describe)	NONE		
Photo other (describe)	NONE		
Notes (e.g. Islands, Obstructions)	NONE		