COUNTY OF SAN BERNARDINO

DEPARTMENT OF PUBLIC WORKS

RIALTO CHANNEL

FLOODPLAIN STUDY

SEPTEMBER 2012

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EXHIBITS

Rialto Channel HEC-RAS Stationing Diagram .

Flood Limits and Discharge Flowcharts (each scenario).

Table of existing and proposed streets crossing culverts.

Table of existing street capacity.

Table of Discharges on major road crossing for each scenario

Table of floodplain Assesses Values.

Tables of results in each scenario.

STUDY AREA:

The study area is along Rialto channel between the I-10 Freeway and Cactus Basin at Baseline Avenue. The study length is approximately 3.85 miles and is located in the City of Rialto.

PURPOSE OF STUDY:

The system has been analyzed and the flood plain modeled using a combination of several different proposed projects. HEC-RAS software was used for the modeling. Each scenario has been analyzed using the anticipated 25 and 10 years runoff. Hydrology for these different conditions has been previously determined and is not included in this report.

The purpose of this study is to prioritize the phased Rialto Channel projects based on the greatest reduction in flood risk as characterized in the flood plain mapping for each scenario.

ANALYSIS APPROACH:

- Due to potential obstructions within the roadways, the system was analyzed based upon a subcritical flow condition.
- The capacity of the existing Rialto Channel has been calculated to be as little as 178 cfs in some areas.
- Runoff that overtops Rialto channel and flows onto local streets was analyzed using side weirs at each street crossing thus resulting in a spilt flow through the adjoining streets.
- A separate HEC- RAS study for each intersecting major streets was prepared using the Q resulting from the side weir analysis.
- The anticipated runoff resulting from the spilt flow analysis was compared to the calculated street capacity. flooding was assumed to occur wherever the calculated Q25 or Q10 runoff was greater than the calculated street capacity.

DESCRIPTION OF POTENTIAL IMRPOVEMENT SCENARIOS

1. **Existing condition with no additional improvements (no attenuation within Cactus Basins).**

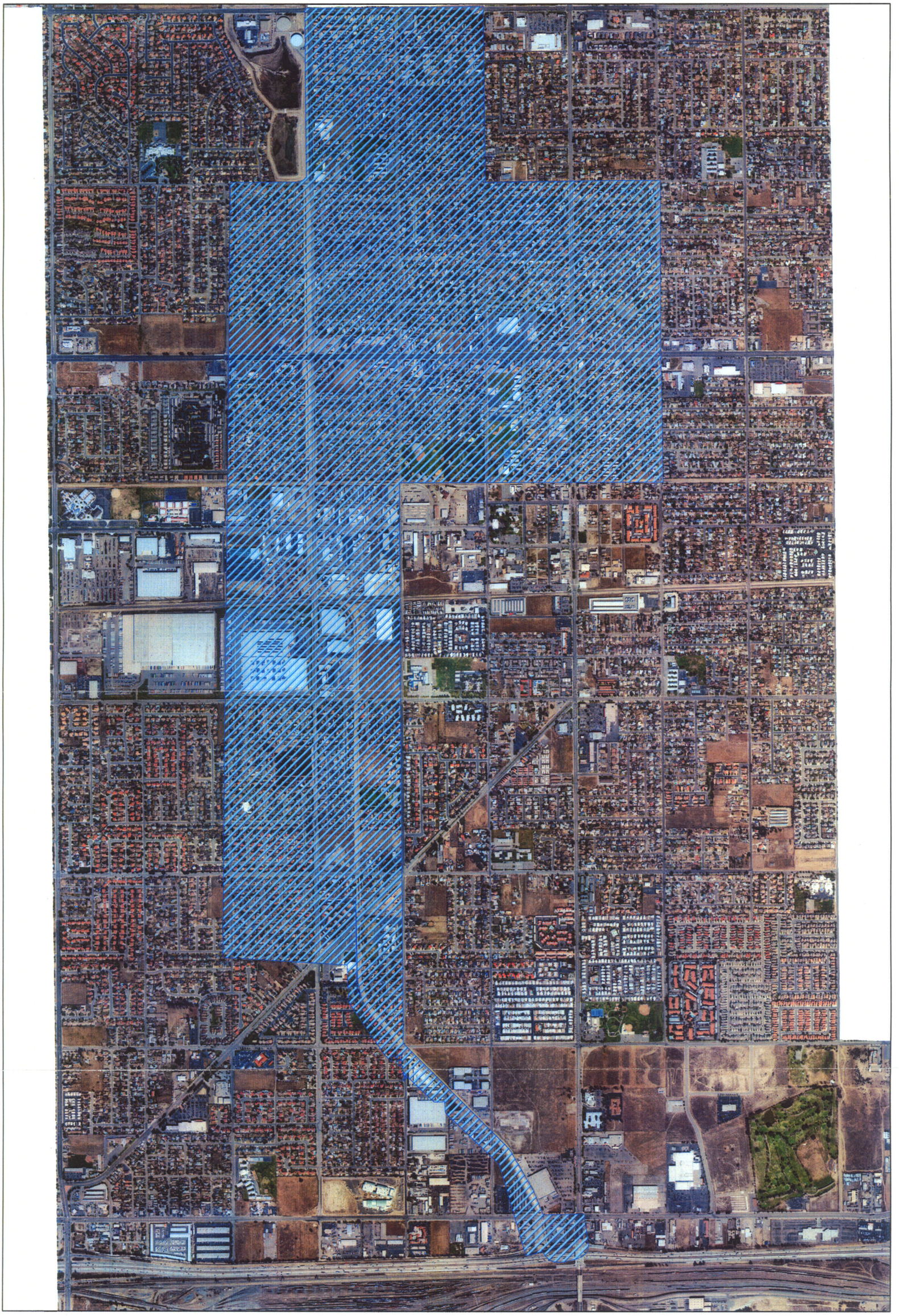
   The system was analyzed and the flood plain modeled based on the existing condition of Basin #3,4 and 5, channel geometry and crossing culverts. Due to the current metering of the outlet structure beneath Baseline Avenue, flow is assumed to flow from Basin 3 unto the intersection of Baseline and Cactus Avenues. Q25 and Q10 at this location are 6,762 and 5,542 cfs.

2. **Construction of ultimate improvements to Cactus Basin No. 3.**

   The system was analyzed and the flood plain modeled based on the ultimate improvements of basin #3 only without any improvements of the channel or crossing culverts. Again, due to the current metering of the outlet structure beneath Baseline Avenue, flow is assumed to flow from Basin 3 unto the intersection of Baseline and Cactus Avenues. Q25 and Q10 at this location are 3,991 and 3,272 cfs.

3. **Construction of ultimate improvements to Cactus Basin No. 3,4 and 5.**

   The system was analyzed and the flood plain modeled based on the ultimate improvements of basin #3,4 and 5 without any improvements of the channel or crossing culverts. Again, due to the current metering of the outlet structure beneath Etiwanda Avenue, flow is assumed to flow from Basin 1 unto the intersection of Etiwanda and Cactus Avenues. Q25 and Q10 at this location are 1,039 and 852 cfs.



Legend

Parcels

Water Surface Limits

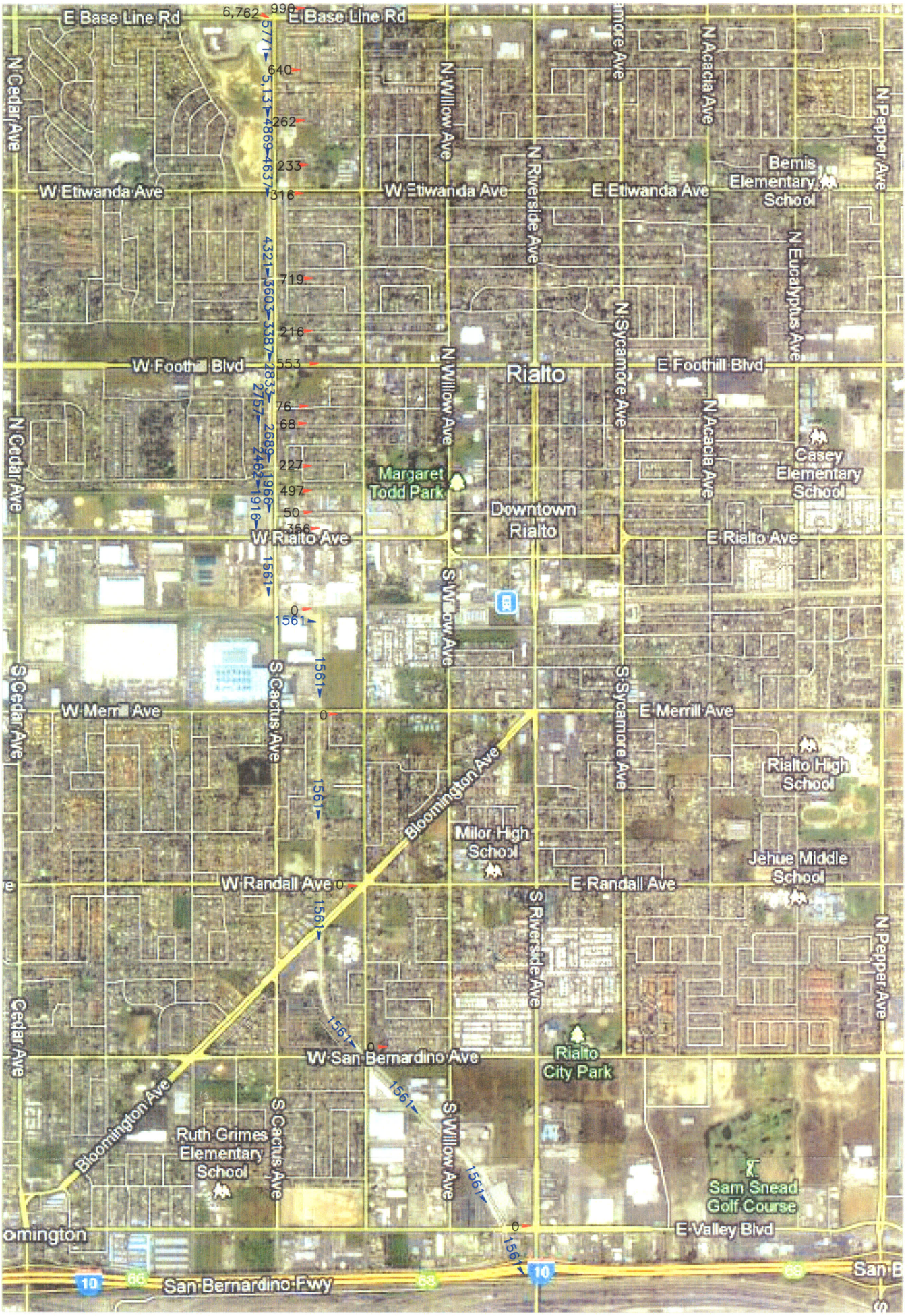
Existing Condition Q25 - Flood Limits

3796 Parcels within the flood limits

N

1 inch = 1,312 feet

0 300 600 1,200 1,800 Feet



EXISTING CONDITION Q25 NO LATERAL

LEGEND

XXX → = Q LATERAL (CFS)

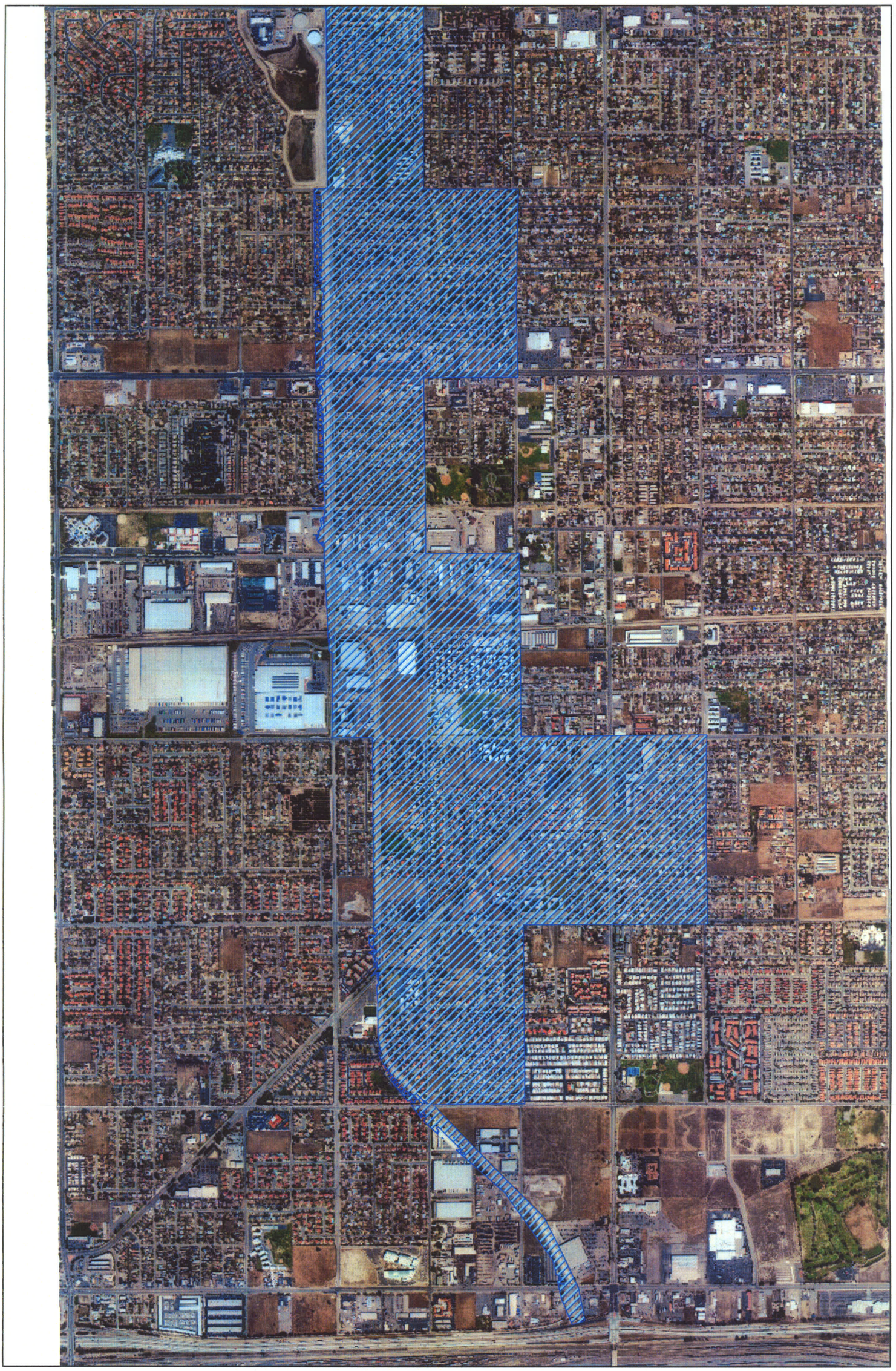
XXX → = Q RIALTO CHANNEL (CFS)

XXX → = Q WEIR (CFS)

N

GRAPHIC SCALE 1"=700'

700 0 700 1400 2100



Legend

- Parcels
- Water Surface Limits

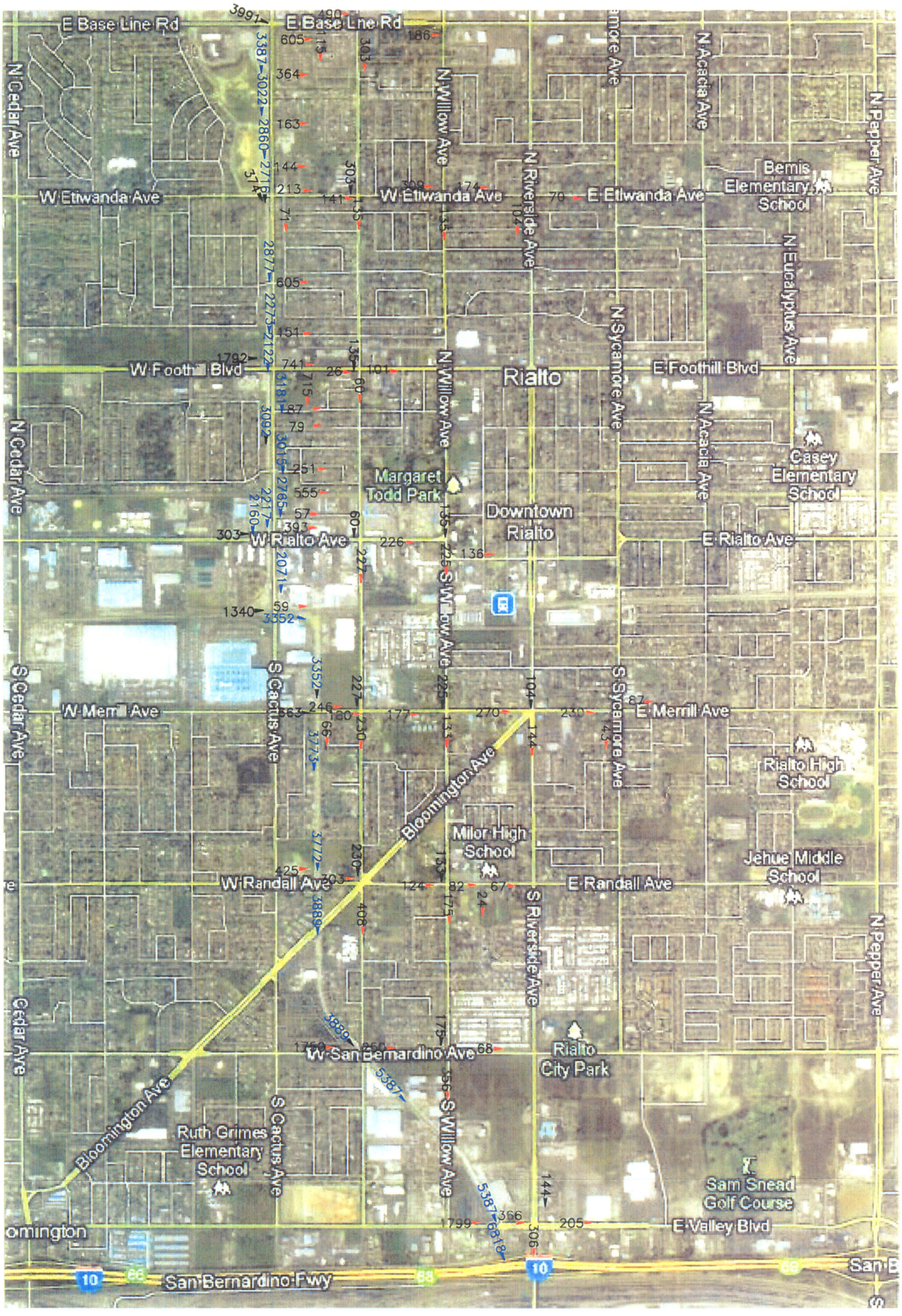
Proposed Basin #3 only Q10- Flood Limits

2,594 parcels within the flood limits

N

1 inch = 1,256 feet

0 300 600 1,200 1,800 Feet



PROPOSED IMPROVEMENTS TO BASIN 3 - Q25

LEGEND

XXX → = Q LATERAL (CFS)

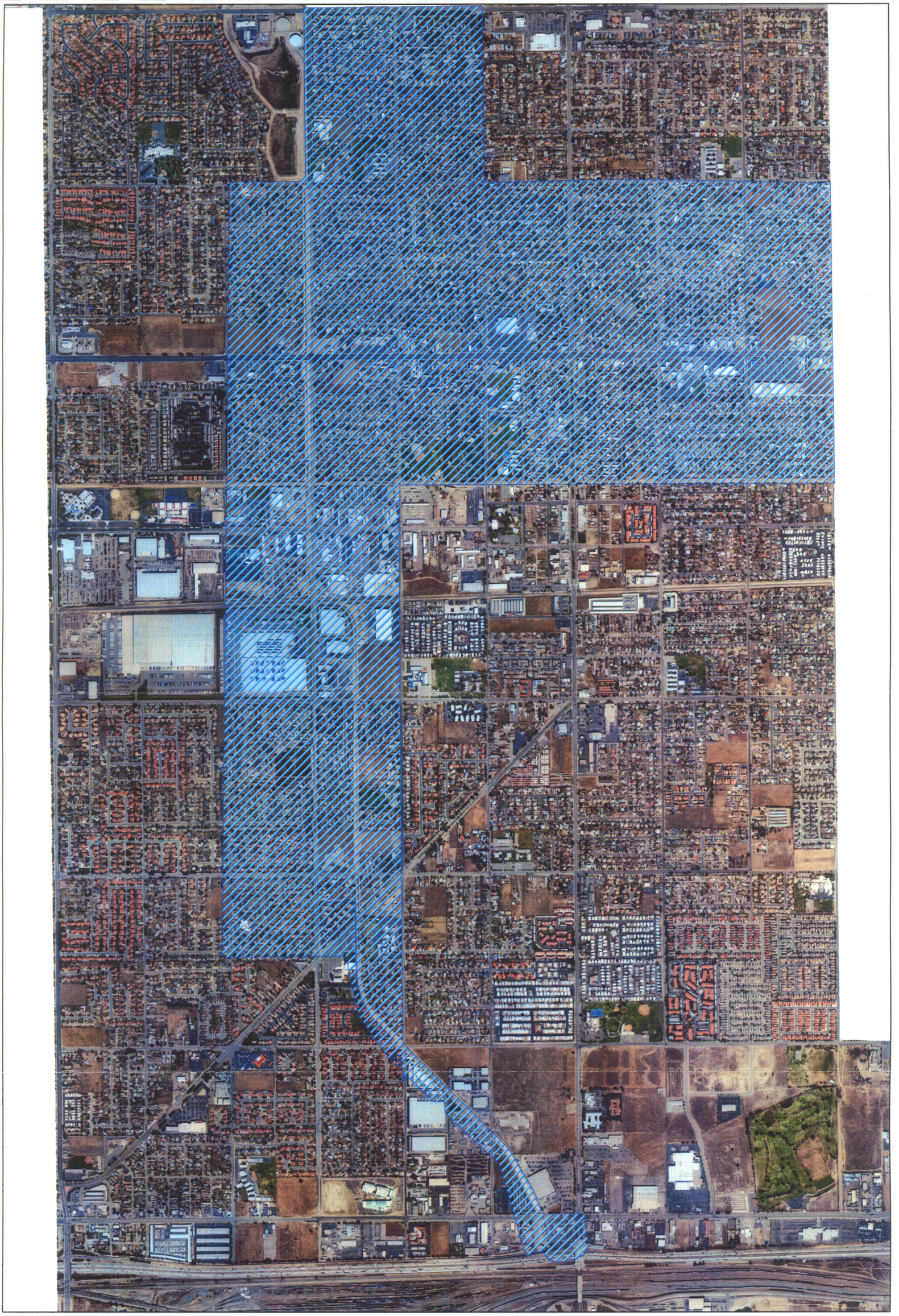
XXX → = Q RIALTO CHANNEL (CFS)

XXX → = Q WEIR (CFS)

N

GRAPHIC SCALE 1"=700

700 0 700 1400 2100



Legend

Parcels

Water Surface Limits

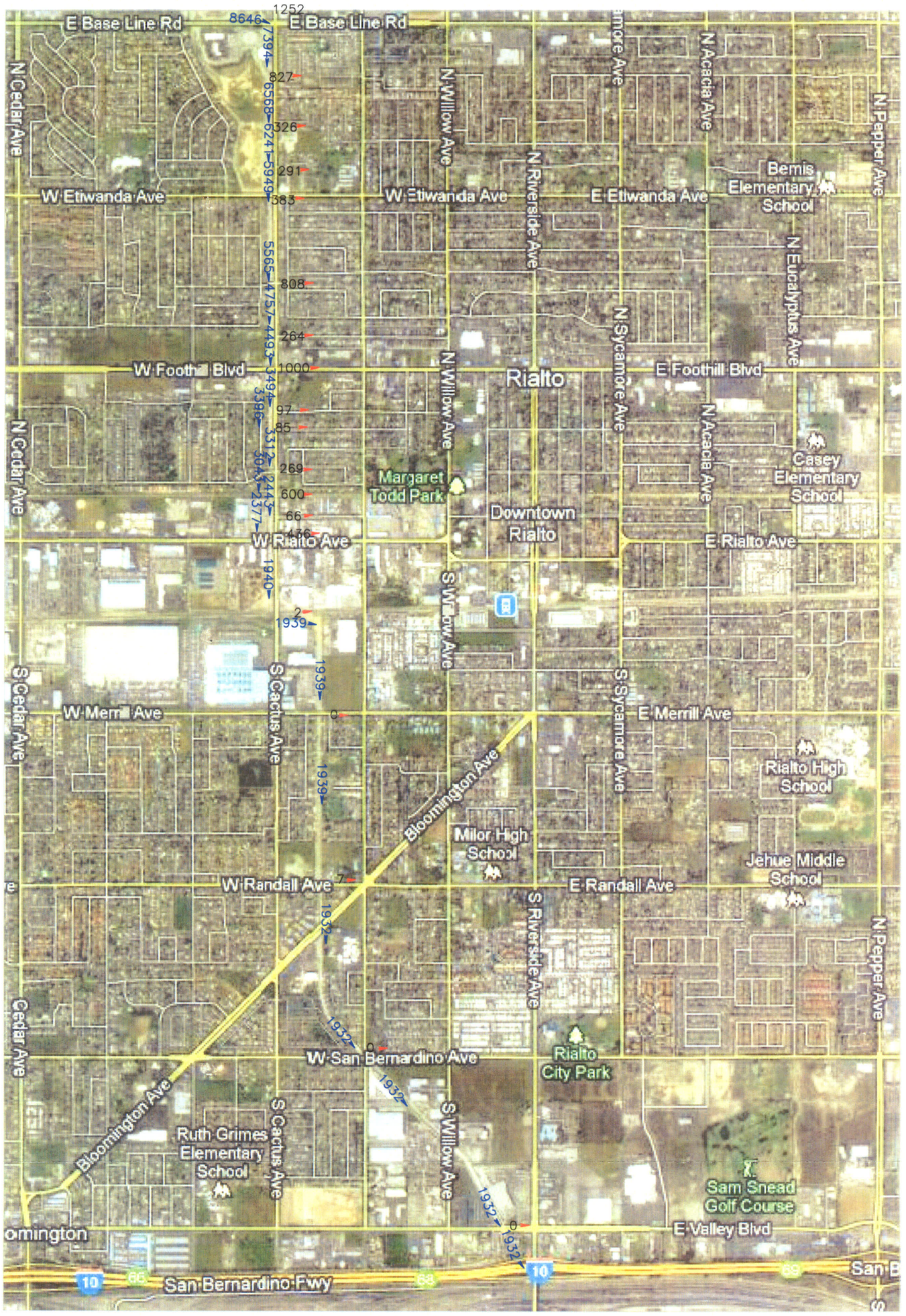
Existing Condition Q100 - Flood Limits

4665 Parcels within the flood limits

N

1 inch = 1,312 feet

0 300 600 1,200 1,800 Feet



EXISTING CONDITION Q100 NO LATERAL

LEGEND

XXX → = Q LATERAL (CFS)

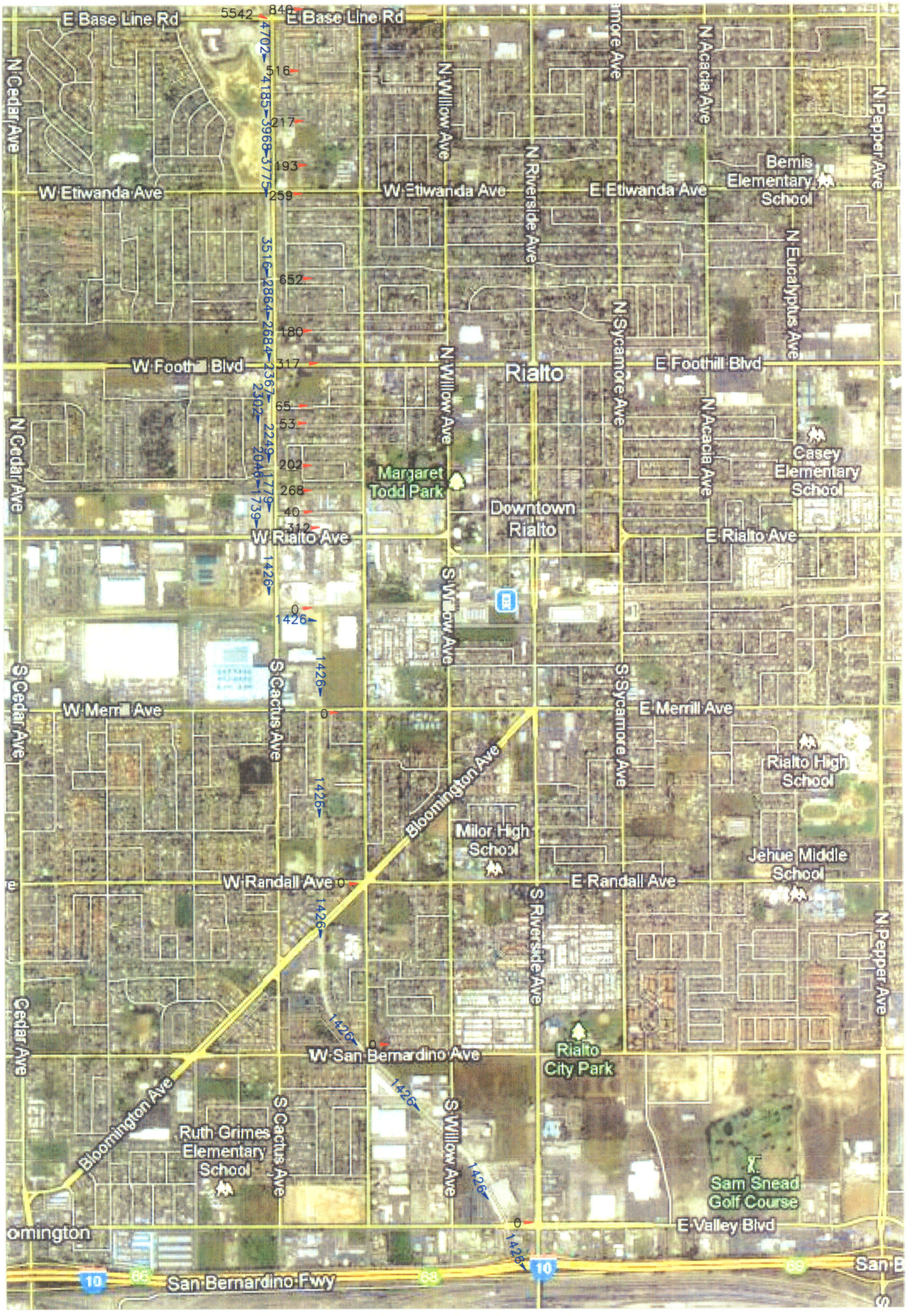
XXX → = Q RIALTO CHANNEL (CFS)

XXX → = Q WEIR (CFS)

N

GRAPHIC SCALE 1"=700'

700 0 700 1400 2100



EXISTING CONDITION Q10 NO LATERAL

LEGEND

XXX → = Q LATERAL (CFS)

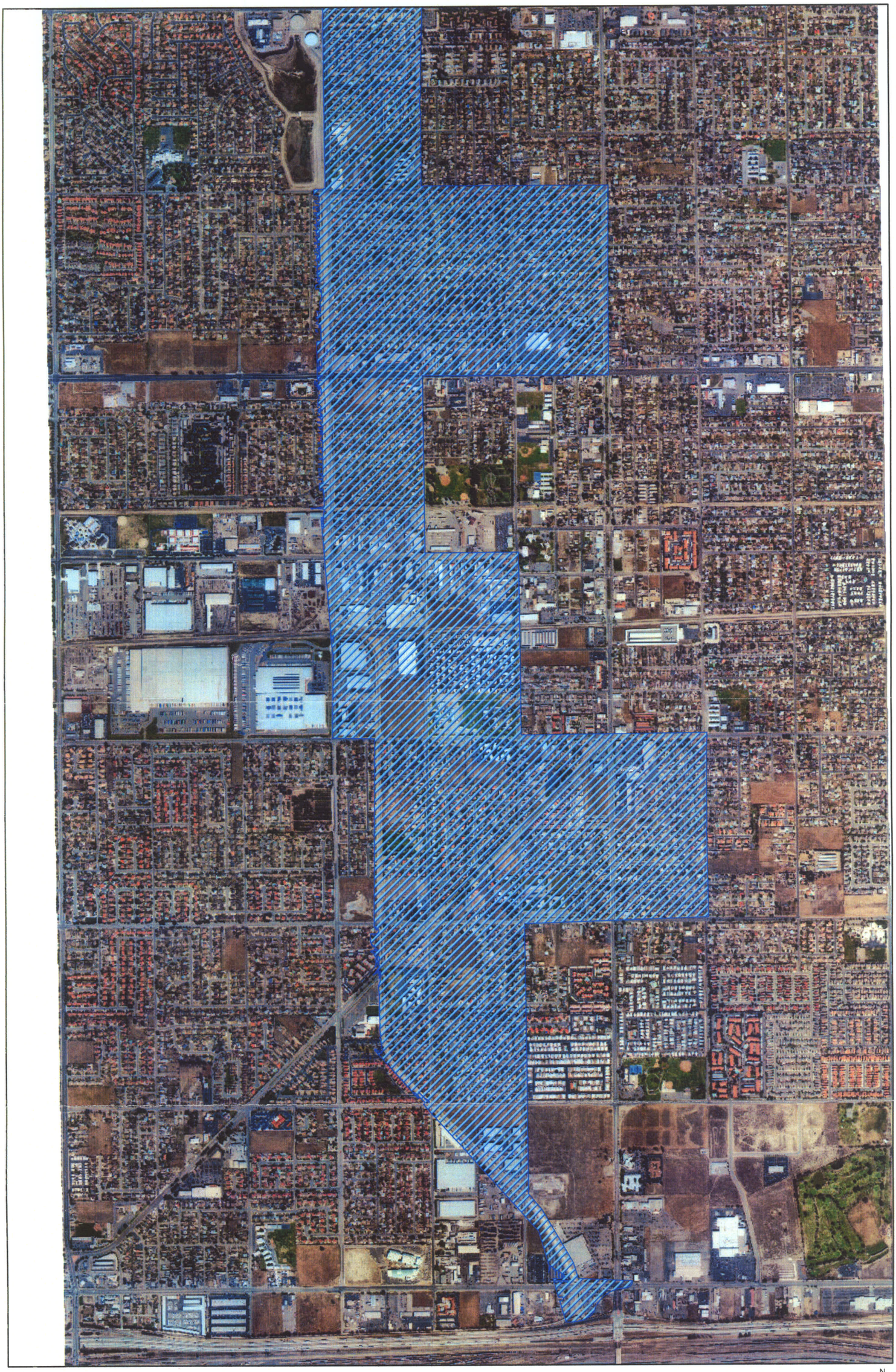
XXX → = Q RIALTO CHANNEL (CFS)

XXX → = Q WEIR (CFS)

N

GRAPHIC SCALE 1"=700'

700 0 700 1400 2100



Legend

- Parcels
- Water Surface Limits

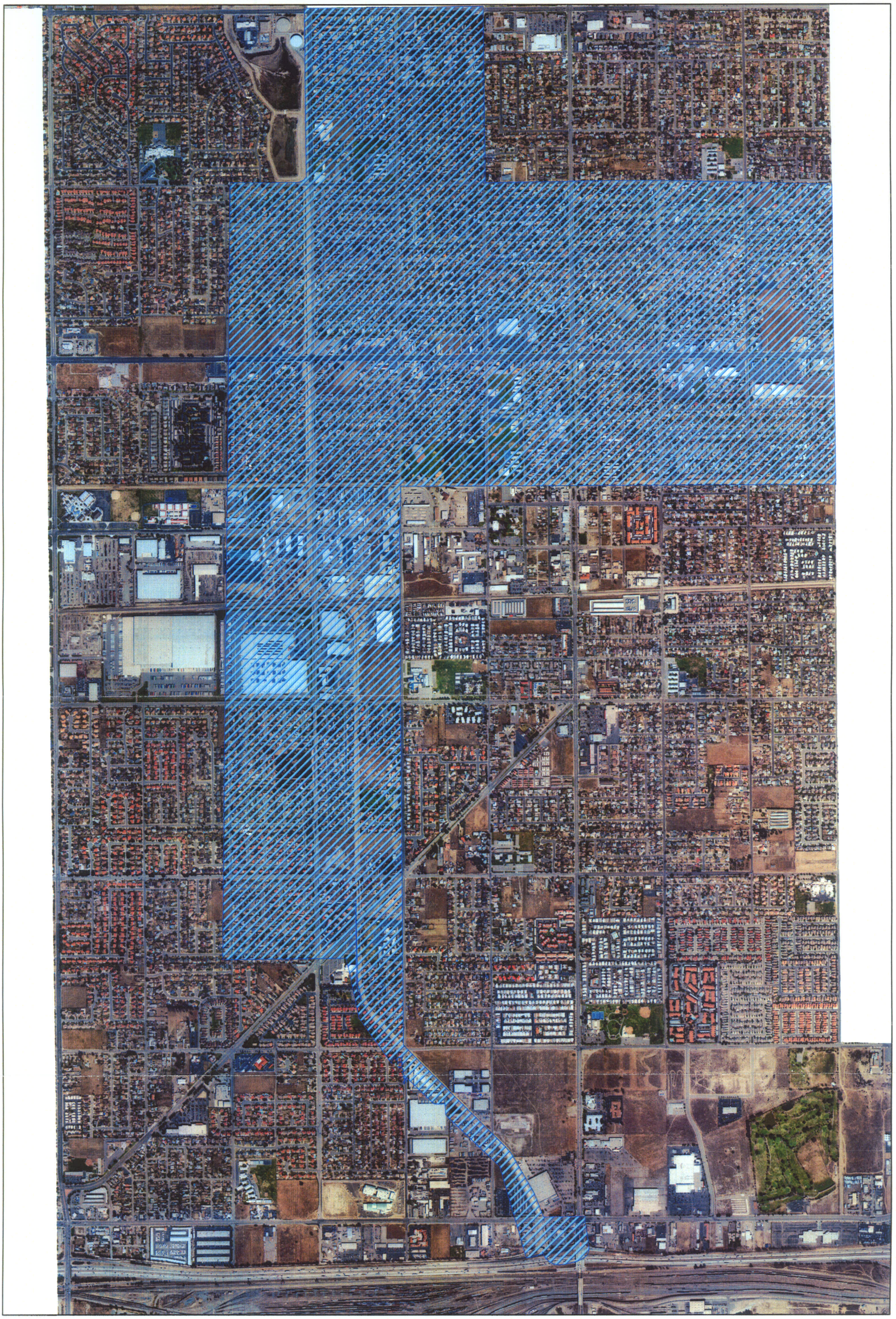
Proposed Basin #3 only Q25- Flood Limits

2,849 parcels within the flood limits

N

1 inch = 1,256 feet

0 300 600 1,200 1,800 Feet



Legend

Parcels

Water Surface Limits

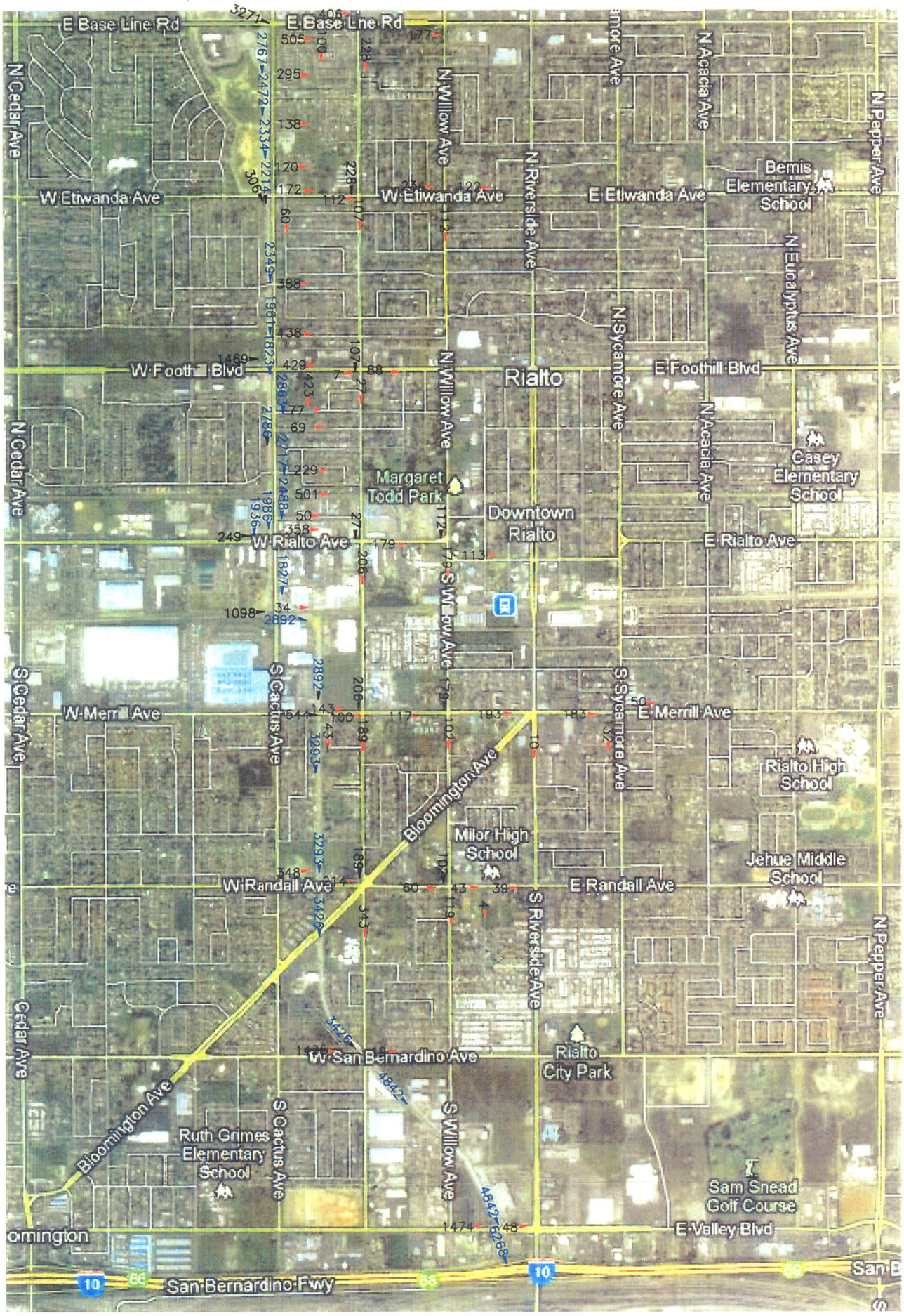
Existing Condition Q10 - Flood Limits

3281 Parcels within the flood limits

N

1 inch = 1,312 feet

0 500 1,000 2,000 3,000 Feet



PROPOSED IMPROVEMENTS TO BASIN 3 - Q10

LEGEND

XXX → = Q LATERAL (CFS)

XXX → = Q RIALTO CHANNEL (CFS)

XXX → = Q WEIR (CFS)

N

GRAPHIC SCALE 1"=700'

700 0 700 1400 2100

Legend

- Parcels
- Water Surface Limits

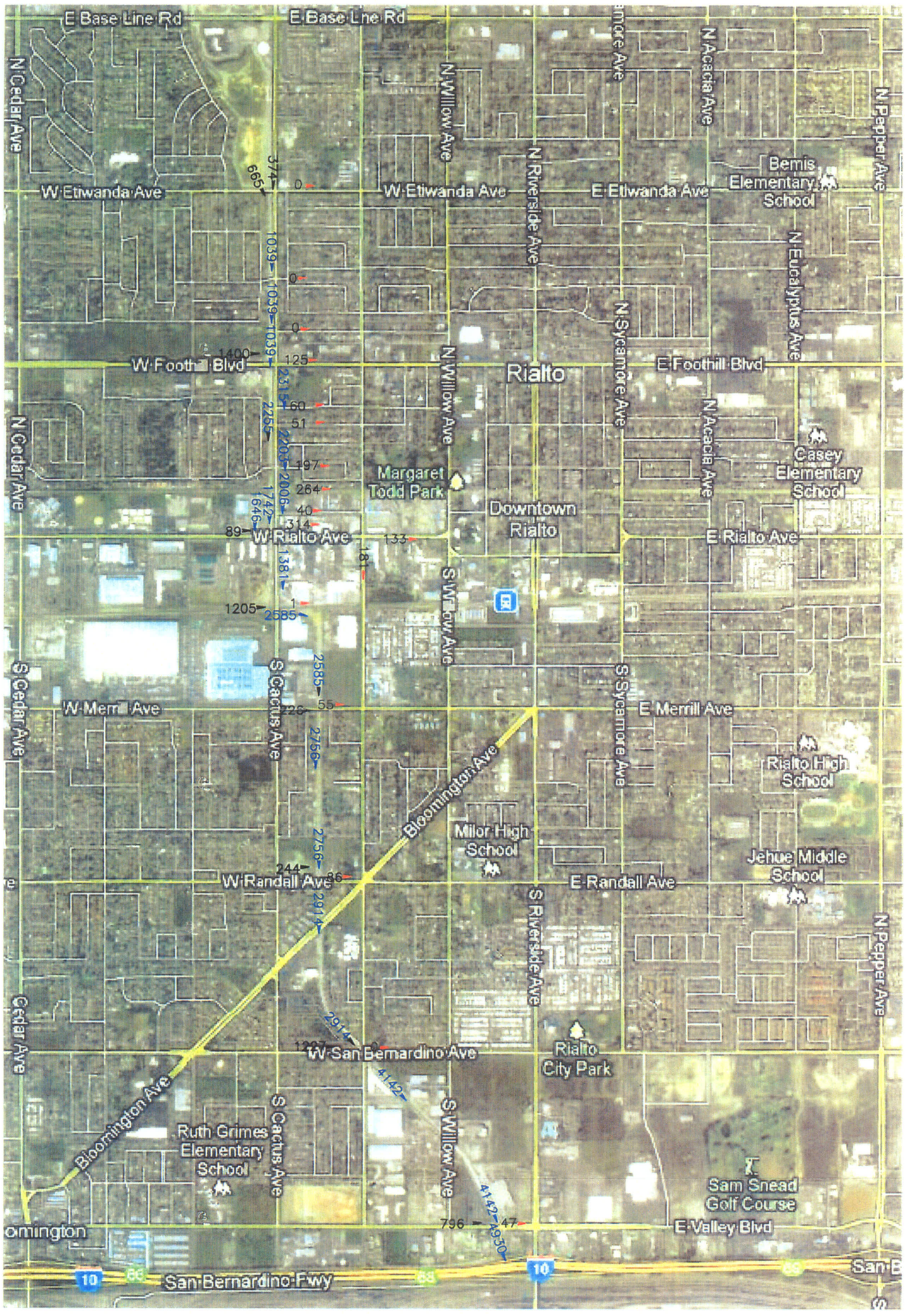
Proposed Basin# 3,4 and 5 improvements Q25 - Flood Limits

238 parcels within the flood limits

N

1 inch = 1,238 feet

0 300 600 1,200 1,800 Feet



PROPOSED IMPROVEMENTS TO ALL BASINS - Q25

LEGEND

XXX → = Q LATERAL (CFS)

XXX → = Q RIALTO CHANNEL (CFS)

XXX → = Q WEIR (CFS)

N

GRAPHIC SCALE 1"=700'

700 0 700 1400 2100

Legend

- Parcels
- Water Surface Limits

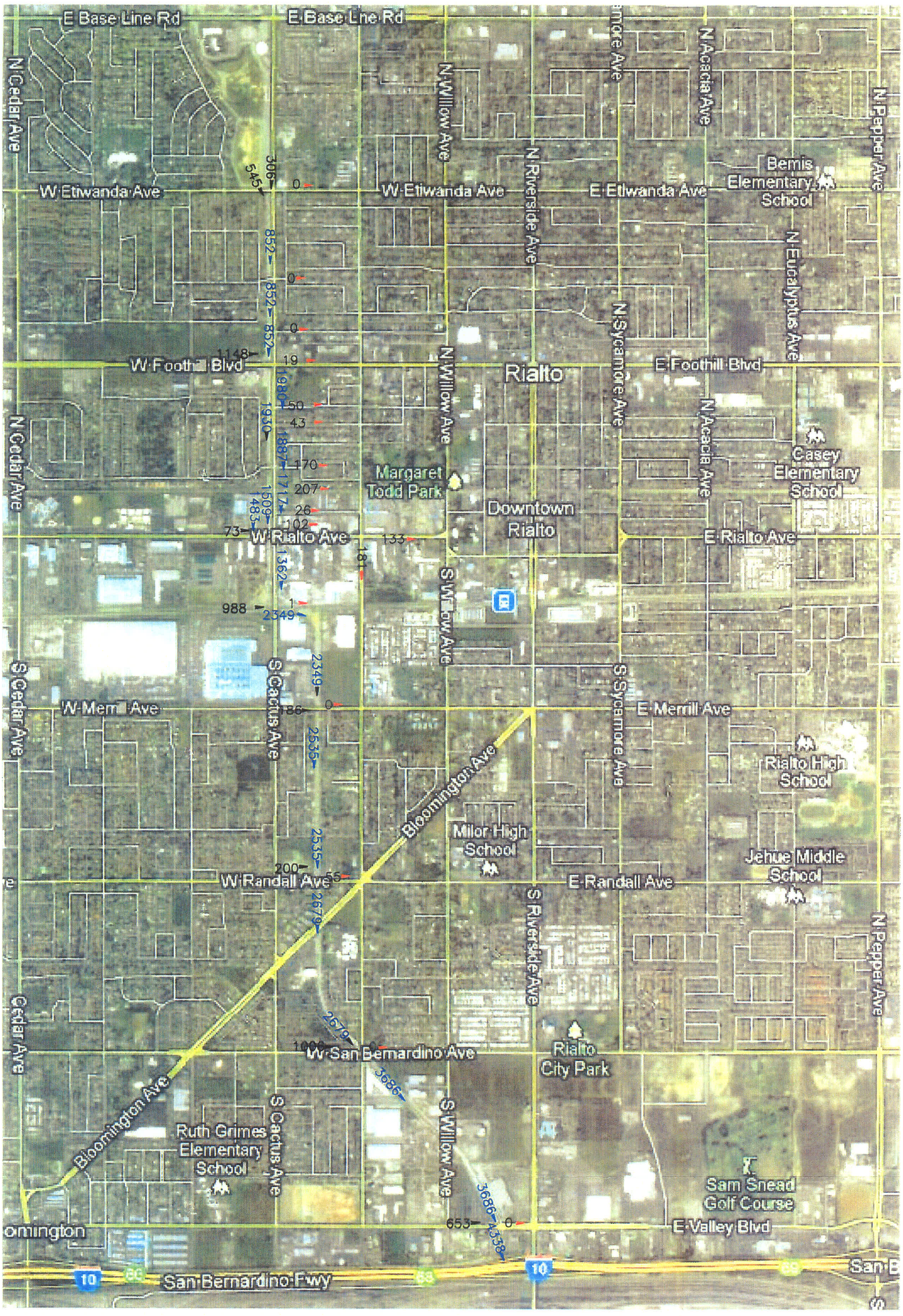
Proposed Basin# 3,4 and 5 improvements Q10 - Flood Limits

132 parcels within the flood limits

N

1 inch = 1,238 feet

0 300 600 1,200 1,800 Feet



PROPOSED IMPROVEMENTS TO ALL BASINS - Q10

LEGEND

XXX → = Q LATERAL (CFS)

XXX → = Q RIALTO CHANNEL (CFS)

XXX → = Q WEIR (CFS)

N

GRAPHIC SCALE 1"=700'

700 0 700 1400 2100

Street Name	Existing Culvert	Proposed Culvert
Rosewood St	RCB 14'x6'	
Foothill Blvd	DBL CSPA 81"x59"	DBL 12'x6'
2nd St	DBL 12'x6'	
US 1st Street	DBL CSPA 52"x72"	
Rialto Ave	DBL CSPA 81"x59" then RCB 3.5'x8.17'	
US Cactus Basin	DBL CSPA 44"x72"	
Cactus Basin	DBL CSPA 44"x72"	
US Rail Road	DBL CSPA 44"x72"	
Rail Road	DBL CSPA 44"x72"	DBL 16'x8'
Merrill Ave	DBL CSPA 44"x72"	DBL 10'x8'
Randall Ave	DBL CSPA 44"x72"	DBL 10'x8'
Bloomington Ave	DBL 12'x9'	
San Bernardino Ave	DBL 12'x9'	
Willow Ave	DBL 12'x9'	
Valley Blvd	DBL 14'x10'	
US I-10 Freeway	DBL 15'x15'	
I-10 Freeway	DBL 15'x15'	
Riverside Ave	DBL 15'x15'	
Solver Ave	DBL 14'x14'	
DS Solver Ave	DBL 14'x14'	
DS Santa ana Ave	DBL 14'x10'	
Agua Mensa RD	DBL 10'x7'	

Street Capacity

Street Name	WIDE (ft)	SLOPE %	Q cap. (cfs)
Base Line RD	70.00	0.60	255.00
Elma Park St	57.00	0.60	207.00
W Madrona St	34.00	0.40	100.00
W Valencia St	34.00	0.50	112.00
W Etiwanda Ave	45.00	0.60	163.00
W Rosewood St	29.00	1.70	175.00
Ramona Dr	36.00	0.70	140.00
Foothill Blvd	87.00	0.60	318.00
Holladay Pl	34.00	0.50	112.00
W 3rd St	36.00	0.40	106.00
W 2nd St	32.00	0.40	94.00
Dirt Rd	64.00	0.50	170.00
W 1st St	37.00	0.30	94.00
Rialto Ave	67.00	0.40	199.00
US Rail Road	25.00	0.40	73.00
W Merrill Ave	45.00	0.40	133.00
W Randall Ave	43.00	0.40	127.00
San Bernardino Ave & Lilac Ave	63.00	0.40	187.00
W Valley Blvd	80.00	1.00	337.00
Lilac ave	35.00	0.02	212.00
Willow ave	35.00	0.02	230.00
Riverside Ave	60.00	0.02	398.00
Sycomora Ave	35.00	0.01	185.00
Acacia Ave	35.00	0.01	162.00
Eucalyptus	35.00	0.02	199.00
Pepper Ave	70.00	0.01	403.00

Node #	Location	Q25			Q10		
		Basin # 3,4,5	No Basins	Basin # 3 only	Basin # 3,4,5	No Basins	Basin # 3 only
220	Etiwanda Ave	1,039.27	7,135.37	4,365.15	851.86	5,848.67	3,577.99
221	Foothill Blvd	2,439.22	8,927.83	6,157.61	1,999.36	7,317.90	5,047.22
222	South Pacific RR	2,528.46	9,231.27	6,461.05	2,072.51	7,566.62	5,295.94
223	Atchison Topeka RR	3,733.76	10,570.92	7,800.70	3,060.46	8,664.69	6,394.02
224	Merril Ave	3,960.20	11,234.10	8,463.88	3,246.06	9,208.28	6,937.61
225	Randall Ave	4,204.15	11,658.76	8,888.54	3,446.03	9,556.36	7,285.69
226	Bloomington Ave	4,698.55	12,276.58	9,506.36	3,851.27	10,062.77	7,792.10
227	San Bernardino Ave	5,431.64	13,408.99	10,638.77	4,452.17	10,990.97	8,720.30
228	Willow Ave	5,846.76	14,324.77	11,554.55	4,792.42	11,741.62	9,470.94
229	Valley Blvd	6,227.82	15,207.71	12,437.49	5,104.77	12,465.33	10,194.66
230	FWY 10	7,402.89	16,873.48	14,103.25	6,067.94	13,830.72	11,560.04
231	Slover Ave	7,719.27	17,280.14	14,509.92	6,327.27	14,164.05	11,893.38
232	Sycamore Ave	7,729.21	17,362.26	14,592.04	6,335.42	14,231.36	11,960.69
233	North Santa Ana Ave	7,813.62	17,948.80	15,178.58	6,404.61	14,712.13	12,441.46

Cactus Basin / Rialto Channel

Floodplain Assesses Values

Different Scenarios	Effected Parcels Number	Total Land Value ($)	Total Improvement Value ($)
Existing Condition "Q100"	4,665	225,116,718	544,558,451
Existing Condition "Q25"	3,796	184,218,279	457,317,066
Existing Condition "Q10"	3,281	164,212,732	411,722,611
Proposed improvements to Basin #3 "Q 25"	2,849	155,310,248	352,610,787
Proposed improvements to Basin #3 "Q10"	2,594	146,638,996	342,063,868
Proposed improvements to Basin #3, 4 and 5 "Q25"	238	21,467,780	51,672,613
Proposed improvements to Basin #3, 4 and 5 "Q10"	132	14,163,829	25,102,121

Existing Condition.
Q25

Rialto Channel, Street Crossing Lateral Wier Table (Existing Q25 No lateral)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	*Water Depth (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Base Line RD	20,300.00	6,761.55	0.00	990.43	5,771.12	110.43	2.74	1.86	2.72	1,353.31	1,359.08	1,357.89	1,357.21	1,356.01
Washington St	19,550.00	5,771.12	0.00	639.70	5,131.07	80.00	2.57	1.69	2.52	1,341.00	1,346.24	1,344.97	1,344.87	1,343.57
Madrona St	18,780.00	5,131.07	0.00	261.81	4,869.29	30.00	2.69	1.81	2.67	1,328.00	1,332.35	1,331.15	1,331.89	1,330.69
Valencia St	18,085.00	4,869.29	0.00	232.63	4,636.67	35.33	2.24	1.36	2.21	1,318.00	1,321.66	1,320.69	1,321.24	1,320.24
Etiwanda Ave	17,650.00	4,636.67	0.00	315.87	4,320.75	50.00	2.24	1.36	2.15	1,311.00	1,314.84	1,314.06	1,314.02	1,313.24
Rosewood St	16,290.00	4,320.75	0.00	718.92	3,602.61	50.00	3.82	2.94	3.72	1,290.00	1,295.40	1,294.63	1,294.55	1,293.82
Ramona Dr	15,480.00	3,602.61	0.00	215.17	3,387.39	35.33	2.19	1.31	2.10	1,279.60	1,283.05	1,282.18	1,282.35	1,281.61
Foothill Blvd	14,990.00	3,387.39	0.00	553.30	2,833.21	100.00	2.49	1.61	1.96	1,271.00	1,275.56	1,274.49	1,274.33	1,272.43
Holiday Pl	14,325.00	2,833.21	0.00	76.28	2,756.94	26.87	1.47	0.59	1.26	1,260.60	1,263.25	1,262.54	1,262.77	1,262.07
3rd St	14,060.00	2,756.94	0.00	67.58	2,689.40	32.58	1.15	0.27	1.02	1,255.85	1,258.00	1,257.39	1,257.39	1,256.75
2nd St	13,405.00	2,689.40	0.00	227.09	2,462.34	35.00	2.19	1.31	2.19	1,244.00	1,247.39	1,246.69	1,246.87	1,246.20
Dirt Rd	13,048.00	2,462.34	0.00	496.70	1,965.67	79.42	2.56	1.68	2.13	1,240.00	1,244.38	1,243.56	1,242.42	1,241.70
1st St	12,740.00	1,965.67	0.00	49.52	1,916.15	20.00	1.50	0.62	1.14	1,235.00	1,237.44	1,236.79	1,237.16	1,236.50
Rialto Ave	12,550.00	1,916.15	0.00	355.54	1,560.77	71.00	1.84	0.96	1.84	1,229.00	1,232.50	1,231.84	1,231.49	1,230.84
US Rail Road	11,025.00	1,560.77	0.00	0.02	1,560.75	2.08	0.05	0.05	0.03	1,214.00	1,215.82	1,215.05	1,213.39	1,212.04
Merrill Ave	9,400.00	1,560.75	0.00	0.00	1,560.75	0.00	0.00	0.00	0.00	1,186.00	1,187.47	1,185.36	1,186.19	1,184.07
Randall Ave	6,750.00	1,560.75	0.00	0.01	1,560.75	0.73	0.05	0.05	0.02	1,149.00	1,151.87	1,150.05	1,148.18	1,146.55
San Bernardino Ave & Lilac Ave	3,850.00	1,560.75	0.00	0.00	1,560.75	0.00	0.00	0.00	0.00	1,109.00	1,107.43	1,105.23	1,106.62	1,104.44
Valley Blvd	480.00	1,560.75	0.00	0.00	1,560.75	0.00	0.00	0.00	0.00	1,058.00	1,053.92	1,051.57	1,053.05	1,050.52

AVG OF 1-14 = 2.12'

*Depth of flow above standard street section ground elevation at right of way

Water Depth in Street intersection (Existing Condition Q25)

Water Depth (ft)	Cactus Ave	Lilac ave	Willow ave	Riverside Ave	Sycamore Ave
Base Line RD	1.86	0.21	1.05	0.00	0.00
W Etiwanda Ave	1.36	0.99	1.32	0.65	0.28
Foothill Blvd	1.61	0.00	0.00	0.00	0.00
Rialto Ave	0.96	0.72	0.29	0.00	0.00
W Merrill Ave	0.00	0.00	0.00	0.00	0.00
W Randall Ave	0.00	0.00	0.00	0.00	0.00
San Bernardino Ave & Lilac Ave	0.00	0.00	0.00	0.00	0.00
W Valley Blvd	0.00	0.00	0.00	0.00	0.00

Existing Condition.
Q10

Rialto Channel, Street Crossing Lateral Wier Table (Existing Q10 No lateral)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth (ft)	*Water Depth (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Base Line RD	20,300.00	5,542.26	0.00	840.12	4,702.14	110.43	2.46	1.58	2.44	1,353.31	1,358.64	1,357.61	1,356.76	1,355.73
Washington St	19,550.00	4,702.14	0.00	516.20	4,184.81	80.00	2.23	1.35	2.18	1,341.00	1,345.75	1,344.64	1,344.37	1,343.23
Madrona St	18,780.00	4,184.81	0.00	217.04	3,967.74	30.00	2.38	1.50	2.36	1,328.00	1,331.89	1,330.83	1,331.43	1,330.38
Valencia St	18,085.00	3,967.74	0.00	193.05	3,774.76	35.33	1.99	1.11	1.95	1,318.00	1,321.29	1,320.42	1,320.86	1,319.99
Etiwanda Ave	17,650.00	3,774.76	0.00	258.75	3,516.01	50.00	2.00	1.12	1.88	1,311.00	1,314.54	1,313.77	1,313.72	1,313.00
Rosewood St	16,290.00	3,516.01	0.00	651.57	2,864.49	50.00	3.58	2.70	3.49	1,290.00	1,295.10	1,294.39	1,294.27	1,293.59
Ramona Dr	15,480.00	2,864.49	0.00	179.68	2,683.95	35.33	1.93	1.05	1.86	1,279.60	1,282.70	1,281.92	1,282.03	1,281.39
Foothill Blvd	14,990.00	2,683.95	0.00	316.75	2,367.08	100.00	2.07	1.19	1.32	1,271.00	1,275.11	1,274.07	1,273.59	1,271.58
Holiday Pl	14,325.00	2,367.08	0.00	64.87	2,302.19	26.87	1.32	0.44	1.13	1,260.60	1,263.03	1,262.44	1,262.54	1,261.92
3rd St	14,060.00	2,302.19	0.00	53.45	2,248.69	32.58	0.99	0.11	0.88	1,255.85	1,257.81	1,257.23	1,257.20	1,256.62
2nd St	13,405.00	2,248.69	0.00	202.15	2,046.48	35.00	2.04	1.16	2.03	1,244.00	1,247.16	1,246.52	1,246.65	1,246.04
Dirt Rd	13,048.00	2,046.48	0.00	267.52	1,778.96	79.42	2.29	1.41	1.36	1,240.00	1,244.09	1,243.29	1,242.59	1,240.43
1st St	12,740.00	1,778.96	0.00	40.26	1,738.70	20.00	1.35	0.47	0.99	1,235.00	1,237.23	1,236.64	1,236.94	1,236.35
Rialto Ave	12,550.00	1,738.70	0.00	312.23	1,426.47	71.00	1.69	0.81	1.69	1,229.00	1,232.29	1,231.69	1,231.28	1,230.69
US Rail Road	11,025.00	1,426.47	0.00	0.00	1,426.47	0.00	0.00	0.00	0.00	1,214.00	1,215.63	1,214.14	1,212.95	1,211.31
Merrill Ave	9,400.00	1,426.47	0.00	0.00	1,426.47	0.00	0.00	0.00	0.00	1,186.00	1,186.70	1,184.73	1,185.42	1,183.44
Randall Ave	6,750.00	1,426.47	0.00	0.00	1,426.47	0.00	0.00	0.00	0.00	1,149.00	1,151.13	1,149.43	1,147.44	1,145.91
San Bernardino Ave & Lilac Ave	3,850.00	1,426.47	0.00	0.00	1,426.47	0.00	0.00	0.00	0.00	1,109.00	1,106.63	1,104.61	1,105.83	1,103.83
Valley Blvd	480.00	1,426.47	0.00	0.00	1,426.47	0.00	0.00	0.00	0.00	1,058.00	1,053.08	1,050.98	1,052.15	1,049.90

AVG, 1-14 = 1.83'

*Depth of flow above standard street section ground elevation at right of way

Water Depth in Street intersection (Existing Condition Q10)

Water Depth (ft)	Cactus Ave	Lilac ave	Willow ave	Riverside Ave	Sycamore Ave
Base Line RD	1.58	0.10	0.89	0.00	0.00
W Etiwanda Ave	1.12	0.82	1.12	0.50	0.19
Foothill Blvd	1.19	0.00	0.00	0.00	0.00
Rialto Ave	0.81	0.60	0.27	0.00	0.00
W Merrill Ave	0.00	0.00	0.00	0.00	0.00
W Randall Ave	0.00	0.00	0.00	0.00	0.00
San Bernardino Ave & Lilac Ave	0.00	0.00	0.00	0.00	0.00
W Valley Blvd	0.00	0.00	0.00	0.00	0.00

Proposed Basin #3.
Q25

Rialto Channel, Street Crossing Lateral Wier Table (Proposed Basin #3 only Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Base Line RD	20,300.00	3,991.33	0.00	604.83	3,386.58	110.43	2.00	1.96	1,353.31	1,358.01	1,357.15	1,356.11	1,355.22
Washington St	19,550.00	3,386.58	0.00	363.56	3,022.48	80.00	1.77	1.73	1,341.00	1,345.10	1,344.19	1,343.70	1,342.77
Madrona St	18,780.00	3,022.48	0.00	162.51	2,860.07	30.00	1.97	1.94	1,328.00	1,331.27	1,330.42	1,330.81	1,329.97
Valencia St	18,085.00	2,860.07	0.00	144.27	2,715.96	35.33	1.64	1.61	1,318.00	1,320.78	1,320.08	1,320.34	1,319.64
Etiwanda Ave	17,650.00	2,715.96	373.82	212.64	2,877.03	50.00	1.78	1.65	1,311.00	1,314.13	1,313.52	1,313.42	1,312.78
Rosewood St	16,290.00	2,877.03	0.00	605.33	2,272.82	50.00	3.44	3.32	1,290.00	1,294.82	1,294.21	1,294.00	1,293.44
Ramona Dr	15,480.00	2,272.82	0.00	151.28	2,121.50	35.33	1.73	1.66	1,279.60	1,282.40	1,281.72	1,281.76	1,281.19
Foothill Blvd	14,990.00	2,121.50	1,792.46	740.86	3,181.01	100.00	2.44	2.39	1,271.00	1,275.06	1,274.35	1,274.32	1,273.44
Holiday Pl	14,325.00	3,181.01	0.00	87.07	3,093.71	26.87	1.59	1.38	1,260.60	1,263.41	1,262.66	1,262.93	1,262.19
3rd St	14,060.00	3,093.71	0.00	79.11	3,014.58	32.58	1.27	1.14	1,255.85	1,258.15	1,257.51	1,257.53	1,256.85
2nd St	13,405.00	3,014.58	0.00	250.89	2,765.17	35.00	2.34	2.34	1,244.00	1,247.55	1,246.84	1,247.02	1,246.34
Dirt Rd	13,048.00	2,765.17	0.00	555.48	2,217.25	79.42	2.72	2.30	1,240.00	1,244.56	1,243.72	1,242.58	1,241.88
1st St	12,740.00	2,217.25	0.00	56.91	2,160.34	20.00	1.62	1.26	1,235.00	1,237.59	1,236.90	1,237.31	1,236.62
Rialto Ave	12,550.00	2,160.34	303.44	392.52	2,070.97	71.00	1.97	1.97	1,229.00	1,232.64	1,231.97	1,231.63	1,230.97
US Rail Road	11,025.00	2,070.97	1,339.65	58.78	3,352.02	80.00	0.83	0.49	1,214.00	1,216.64	1,215.83	1,215.34	1,214.16
Merrill Ave	9,400.00	3,352.02	663.18	246.08	3,772.93	55.00	1.82	1.71	1,186.00	1,191.03	1,188.82	1,190.18	1,187.60
Randall Ave	6,750.00	3,772.93	424.65	302.86	3,889.13	40.00	3.67	2.37	1,149.00	1,155.93	1,153.67	1,152.56	1,150.06
San Bernardino Ave & Lilac Ave	3,850.00	3,889.13	1,750.23	249.80	5,387.33	45.00	2.20	1.97	1,109.00	1,112.58	1,111.74	1,112.12	1,111.20
Valley Blvd	480.00	5,387.33	1,798.72	366.16	6,817.88	90.00	1.71	1.60	1,058.00	1,061.74	1,060.50	1,061.05	1,059.71

AVG. = 1.83'

Base line Street, Lateral Wier Table (Proposed Basin #3 only Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Mesa Ave	7,260.00	604.43	0.00	114.50	489.93	56.45	1.06	1.01	1,352.33	1,354.38	1,353.96	1,353.76	1,353.39
Lilac Ave	6,490.00	489.93	0.00	303.41	186.49	225.69	1.41	0.71	1,350.00	1,352.64	1,352.21	1,352.23	1,349.63

Etiwanda Ave Lateral Wier Table (Proposed Basin #3 only Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Yucca Ave	10,030.00	212.64	0.00	71.46	141.20	45.00	0.91	0.86	1,312.00	1,313.08	1,312.91	1,313.00	1,312.80
Lilac Ave	8,870.00	141.20	303.41	135.30	309.33	40.00	1.47	1.42	1,306.10	1,307.75	1,307.67	1,307.71	1,307.57
Willow Ave	7,560.00	309.33	0.00	135.26	174.06	43.73	1.36	1.34	1,299.00	1,300.62	1,300.36	1,300.47	1,300.32
Riverside Ave	6,225.00	174.06	0.00	104.01	70.14	70.00	0.88	0.82	1,295.80	1,297.37	1,297.09	1,296.79	1,296.56

Foothill Blvd Lateral Wier Table(Proposed Basin #3 only Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
"Open Area" Park Ave	9,435.00	740.86	0.00	715.07	25.73	545.00	1.15	0.74	1,269.10	1,272.73	1,272.15	1,269.57	1,269.42
Lilac Ave	8,760.00	25.73	135.30	60.16	100.71	271.59	0.40	0.22	1,265.00	1,266.95	1,266.84	1,265.49	1,265.40

Rialto Ave Lateral Wier Table (Basin #3 only Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Lilac Ave	9,600.00	392.52	60.16	226.94	225.74	75.00	1.41	1.32	1,225.80	1,227.55	1,227.21	1,227.33	1,227.12
Willow Ave	8,150.00	225.74	135.26	225.29	135.71	368.17	0.87	0.61	1,215.50	1,220.57	1,220.36	1,216.37	1,216.37

Merrill Ave Lateral Wier Table (Basin #3 only Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Athea Ave	8,630.00	246.08	0.00	65.65	180.34	40.00	0.91	0.88	1,185.00	1,186.68	1,186.35	1,186.23	1,185.91
Lilac Ave	8,100.00	180.34	226.94	230.16	177.10	50.00	1.75	1.74	1,183.00	1,184.78	1,184.75	1,184.77	1,184.74
Willow Ave	6,820.00	177.10	225.29	132.59	270.03	55.00	1.22	1.13	1,180.00	1,181.43	1,181.22	1,181.35	1,181.05
Riverside Ave	5,530.00	270.03	104.01	144.12	229.92	250.00	0.30	0.18	1,175.50	1,177.82	1,177.56	1,176.09	1,175.80
Sycamore Ave	4,130.00	229.92	0.00	142.99	86.93	60.00	1.13	1.12	1,168.00	1,169.16	1,169.12	1,169.14	1,169.13

Randall Ave Lateral Wier Table (Basin #3 only Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Lilac Ave	8,570.00	302.86	230.16	108.58	124.44	50.00	2.61	2.56	1,144.30	1,146.94	1,146.91	1,146.94	1,146.91
Willow Ave	7,250.00	124.44	132.59	174.58	82.45	120.00	0.87	0.81	1,145.00	1,146.78	1,146.57	1,145.94	1,145.74
Open Area	6,940.00	82.45	0.00	24.36	58.09	149.37	0.35	0.17	1,142.00	1,143.45	1,143.35	1,141.92	1,141.88

San Bernardino Ave Lateral Wier Table (Basin #3 only Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Willow Ave	8,500.00	249.80	174.58	356.26	68.12	326.06	0.79	0.39	1,102.20	1,108.30	1,107.91	1,102.23	1,101.90

Valley Blvd Lateral Wier Table (Proposed Basin #3 only Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Riverside Ave	11,390.00	366.16	144.12	305.63	204.65	110.00	2.19	1.37	1,062.50	1,064.71	1,064.69	1,064.70	1,064.64

Proposed Basin #3.
Q10

Rialto Channel, Street Crossing Lateral Wier Table (Proposed Basin #3 only Q10)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Base Line RD	20,300.00	3,271.58	0.00	504.89	2,766.66	110.43	1.79	1.74	1,353.31	1,357.70	1,356.94	1,355.78	1,354.99
Washington St	19,550.00	2,766.66	0.00	294.90	2,471.57	80.00	1.54	1.50	1,341.00	1,344.76	1,343.96	1,343.35	1,342.54
Madrona St	18,780.00	2,471.57	0.00	137.86	2,333.74	30.00	1.77	1.74	1,328.00	1,330.95	1,330.22	1,330.49	1,329.77
Valencia St	18,085.00	2,333.74	0.00	119.58	2,214.42	35.33	1.45	1.42	1,318.00	1,320.51	1,319.89	1,320.07	1,319.45
Etiwanda Ave	17,650.00	2,214.42	306.41	172.22	2,348.64	50.00	1.58	1.44	1,311.00	1,313.89	1,313.29	1,313.19	1,312.58
Rosewood St	16,290.00	2,348.64	0.00	388.09	1,960.50	50.00	2.59	2.47	1,290.00	1,294.77	1,293.60	1,294.21	1,292.34
Ramona Dr	15,480.00	1,960.50	0.00	138.17	1,822.73	35.33	1.66	1.56	1,279.60	1,282.23	1,281.65	1,281.59	1,281.06
Foothill Blvd	14,990.00	1,822.73	1,469.23	428.87	2,863.45	100.00	1.98	1.66	1,271.00	1,274.89	1,273.98	1,274.21	1,272.34
Holiday Pl	14,325.00	2,863.45	0.00	77.23	2,786.25	26.87	1.48	1.27	1,260.60	1,263.26	1,262.55	1,262.78	1,262.08
3rd St	14,060.00	2,786.25	0.00	69.17	2,717.11	32.58	1.16	1.04	1,255.85	1,258.02	1,257.40	1,257.40	1,256.77
2nd St	13,405.00	2,717.11	0.00	229.11	2,488.10	35.00	2.21	2.20	1,244.00	1,247.41	1,246.70	1,246.89	1,246.21
Dirt Rd	13,048.00	2,488.10	0.00	501.69	1,986.61	79.42	2.57	2.15	1,240.00	1,244.39	1,243.57	1,242.43	1,241.72
1st St	12,740.00	1,986.61	0.00	50.30	1,936.31	20.00	1.51	1.16	1,235.00	1,237.45	1,236.80	1,237.17	1,236.52
Rialto Ave	12,550.00	1,936.31	248.72	358.33	1,826.91	71.00	1.85	1.85	1,229.00	1,232.51	1,231.85	1,231.51	1,230.85
US Rail Road	11,025.00	1,826.91	1,098.08	33.69	2,891.86	71.28	0.70	0.35	1,214.00	1,216.44	1,215.70	1,215.02	1,213.91
Merrill Ave	9,400.00	2,891.86	543.59	142.84	3,292.58	55.00	1.34	1.19	1,186.00	1,190.43	1,188.34	1,189.48	1,187.04
Randall Ave	6,750.00	3,292.58	348.08	214.36	3,426.06	40.00	3.17	1.85	1,149.00	1,155.31	1,153.17	1,151.86	1,149.54
San Bernardino Ave & Lilac Ave	3,850.00	3,426.06	1,434.62	18.61	4,842.01	45.00	0.46	0.35	1,109.00	1,113.11	1,110.23	1,112.60	1,109.46
Valley Blvd	480.00	4,842.01	1,474.36	48.28	6,268.00	60.71	1.00	0.50	1,058.00	1,062.33	1,058.52	1,061.06	1,059.00

AVG
= 1.44'

Base line Street, Lateral Wier Table (Proposed Basin #3 only Q10)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Mesa Ave	7,260.00	504.89	0.00	99.78	405.83	56.45	0.97	0.92	1,352.33	1,354.24	1,353.88	1,353.63	1,353.30
Lilac Ave	6,490.00	405.83	0.00	228.49	177.33	215.41	1.21	0.60	1,350.00	1,352.39	1,352.01	1,351.97	1,349.61

Etiwanda Ave Lateral Wier Table (Proposed Basin #3 only Q10)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Yucca Ave	10,030.00	172.22	0.00	59.85	112.37	45.00	0.83	0.76	1,312.00	1,312.98	1,312.83	1,312.90	1,312.70
Lilac Ave	8,870.00	112.37	228.49	107.34	233.51	40.00	1.27	1.22	1,306.10	1,307.53	1,307.46	1,307.49	1,307.37
Willow Ave	7,560.00	233.51	0.00	111.72	121.78	43.73	1.21	1.18	1,299.00	1,300.41	1,300.21	1,300.26	1,300.15

Foothill Blvd Lateral Wier Table(Proposed Basin #3 only Q10)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
"Open Area" Park Ave	9,435.00	428.87	0.00	423.66	6.78	545.00	0.86	0.51	1,269.10	1,272.21	1,271.86	1,269.37	1,269.27
Lilac Ave	8,760.00	6.78	107.34	26.54	87.75	183.39	0.32	0.16	1,265.00	1,266.72	1,266.65	1,265.41	1,265.32

Rialto Ave Lateral Wier Table (Basin #3 only Q10)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Lilac Ave	9,600.00	358.33	26.54	205.85	179.14	75.00	1.35	1.23	1,225.80	1,227.47	1,227.15	1,227.21	1,227.02
Willow Ave	8,150.00	179.14	111.72	178.76	112.10	368.17	0.86	0.56	1,215.50	1,220.47	1,220.26	1,216.36	1,216.36

Merrill Ave Lateral Wier Table (Basin #3 only Q10)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Athea Ave	8,630.00	142.84	0.00	43.20	99.62	40.00	0.70	0.66	1,185.00	1,186.36	1,186.13	1,185.92	1,185.70
Lilac Ave	8,100.00	99.62	205.85	188.82	116.67	50.00	1.53	1.53	1,183.00	1,184.55	1,184.53	1,184.54	1,184.53
Willow Ave	6,820.00	116.67	178.76	102.32	193.12	55.00	1.03	0.95	1,180.00	1,181.19	1,181.03	1,181.12	1,180.88
Riverside Ave	5,530.00	193.12	0.00	9.67	182.82	178.97	0.17	0.08	1,175.50	1,177.66	1,177.43	1,175.94	1,175.67
Sycamore Ave	4,130.00	182.82	0.00	132.47	50.35	60.00	1.07	1.07	1,168.00	1,169.09	1,169.07	1,169.08	1,169.07

Randall Ave Lateral Wier Table (Basin #3 only Q10)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Lilac Ave	8,570.00	214.36	188.82	343.21	60.03	50.00	2.33	2.28	1,144.30	1,146.65	1,146.63	1,146.65	1,146.63
Willow Ave	7,250.00	60.03	102.32	118.71	43.23	120.00	0.69	0.62	1,145.00	1,146.53	1,146.39	1,145.71	1,145.56
Open Area	6,940.00	43.23	0.00	4.16	39.07	74.18	0.17	0.08	1,142.00	1,143.25	1,143.17	1,141.74	1,141.71

Proposed Basins #3, 4 and 5. Q25

Rialto Channel, Street Crossing Lateral Wier Table (Proposed all basins Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Etiwanda Ave	17,650.00	665.45	373.82	0.00	1,039.27	1.43	0.02	0.01	1,311.00	1,312.73	1,312.02	1,311.73	1,310.31
Rosewood St	16,290.00	1,039.27	0.00	0.00	1,039.27	0.00	0.00	0.00	1,290.00	1,292.14	1,290.60	1,291.53	1,289.82
Ramona Dr	15,480.00	1,039.27	0.00	0.00	1,039.27	0.00	0.00	0.00	1,279.60	1,280.23	1,278.64	1,279.75	1,277.91
Foothill Blvd	14,990.00	1,039.27	1,399.95	124.62	2,314.74	100.00	1.13	0.71	1,271.00	1,274.05	1,273.13	1,273.26	1,271.28
Holiday Pl	14,325.00	2,314.74	0.00	60.18	2,254.56	26.87	1.29	1.07	1,260.60	1,263.01	1,262.35	1,262.52	1,261.89
3rd St	14,060.00	2,254.56	0.00	51.41	2,202.99	32.58	0.97	0.85	1,255.85	1,257.79	1,257.21	1,257.18	1,256.59
2nd St	13,405.00	2,202.99	0.00	197.01	2,005.97	35.00	2.00	1.99	1,244.00	1,247.13	1,246.49	1,246.63	1,246.00
Dirt Rd	13,048.00	2,005.97	0.00	264.17	1,741.80	79.42	2.27	1.35	1,240.00	1,244.06	1,243.27	1,242.59	1,240.43
1st St	12,740.00	1,741.80	0.00	40.39	1,646.38	20.00	1.35	1.00	1,235.00	1,237.23	1,236.64	1,236.94	1,236.35
Rialto Ave	12,550.00	1,646.38	89.24	313.95	1,381.24	71.00	1.70	1.70	1,229.00	1,232.29	1,231.70	1,231.28	1,230.70
US Rail Road	11,025.00	1,381.24	1,205.30	1.28	2,585.26	14.35	0.23	0.12	1,214.00	1,216.11	1,215.23	1,214.61	1,212.94
Merrill Ave	9,400.00	2,585.26	226.44	55.02	2,756.66	55.00	0.84	0.62	1,186.00	1,189.85	1,187.84	1,188.72	1,186.41
Randall Ave	6,750.00	2,756.66	243.95	86.20	2,914.42	33.70	2.17	1.09	1,149.00	1,154.48	1,152.17	1,150.95	1,148.59
San Bernardino Ave & Lilac Ave	3,850.00	2,914.42	1,227.49	0.00	4,141.91	0.00	0.00	0.00	1,109.00	1,112.21	1,108.93	1,111.63	1,108.36
Valley Blvd	480.00	4,141.91	796.18	47.39	4,929.85	53.24	1.07	0.54	1,058.00	1,061.61	1,060.07	1,061.31	1,057.26

Rialto Channel, Street Crossing Lateral Wier Table (Proposed all basins Q10)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Etiwanda Ave	17,650.00	545.45	306.41	0.00	851.86	0.00	0.00	0.00	1,311.00	1,312.46	1,311.79	1,311.19	1,309.89
Rosewood St	16,290.00	851.86	0.00	0.00	851.86	0.00	0.00	0.00	1,290.00	1,291.49	1,290.06	1,290.85	1,289.29
Ramona Dr	15,480.00	851.86	0.00	0.00	851.86	0.00	0.00	0.00	1,279.60	1,279.58	1,278.02	1,279.06	1,277.40
Foothill Blvd	14,990.00	851.86	1,147.50	19.15	1,980.21	64.88	0.51	0.26	1,271.00	1,273.37	1,272.51	1,272.56	1,270.72
Holiday Pl	14,325.00	1,980.21	0.00	49.93	1,930.28	26.87	1.15	0.95	1,260.60	1,262.83	1,262.24	1,262.34	1,261.75
3rd St	14,060.00	1,930.28	0.00	43.20	1,887.08	32.58	0.87	0.76	1,255.85	1,257.64	1,257.11	1,257.04	1,256.50
2nd St	13,405.00	1,887.08	0.00	170.45	1,716.63	35.00	1.82	1.81	1,244.00	1,246.94	1,246.30	1,246.44	1,245.82
Dirt Rd	13,048.00	1,716.63	0.00	207.26	1,509.35	79.42	2.10	1.12	1,240.00	1,243.84	1,243.10	1,242.23	1,240.14
1st St	12,740.00	1,509.35	0.00	26.24	1,483.11	20.00	1.08	0.74	1,235.00	1,237.21	1,236.40	1,236.94	1,236.08
Rialto Ave	12,550.00	1,483.11	73.15	102.06	1,361.84	71.00	0.86	0.80	1,229.00	1,232.54	1,230.86	1,231.59	1,229.74
US Rail Road	11,025.00	1,361.84	987.95	0.46	2,349.33	8.97	0.16	0.08	1,214.00	1,216.02	1,215.16	1,214.34	1,212.73
Merrill Ave	9,400.00	2,349.33	185.61	0.00	2,534.93	0.00	0.00	0.00	1,186.00	1,189.47	1,186.98	1,188.31	1,185.79
Randall Ave	6,750.00	2,534.93	199.96	55.41	2,679.49	28.59	1.80	0.90	1,149.00	1,154.08	1,151.80	1,150.53	1,148.28
San Bernardino Ave & Lilac Ave	3,850.00	2,679.49	1,006.14	0.00	3,685.63	0.00	0.00	0.00	1,109.00	1,111.51	1,108.38	1,110.91	1,107.76
Valley Blvd	480.00	3,685.63	652.60	0.00	4,338.23	0.00	0.00	0.00	1,058.00	1,060.31	1,057.10	1,060.06	1,055.79

Proposed Basins #3, 4 and 5.

Q10

Rialto Ave Lateral Wier Table (Proposed 3 Basins Q25)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Lilac Ave	9,600.00	313.95	0.00	181.41	132.54	75.00	1.26	1.13	1,225.80	1,227.36	1,227.06	1,227.07	1,226.91

Existing Condition.
Q100

Rialto Channel, Street Crossing Lateral Wier Table (Existing Q100 No lateral)

Street Name	River Sta.	Q US (cfs)	Q Lateral (cfs)	Q Weir (cfs)	Q DS (cfs)	Top Wdth Weir (ft)	Max Depth Weir (ft)	*Water Depth (ft)	Avg Depth (ft)	Min El Weir Flow (ft)	E.G. US. (ft)	W.S. US. (ft)	E.G. DS (ft)	W.S. DS (ft)
Base Line RD	20,300.00	8,645.92	0.00	1,251.72	7,394.21	110.43	3.19	2.31	3.18	1,353.31	1,359.71	1,358.34	1,357.85	1,356.48
Washington St	19,550.00	7,394.21	0.00	826.88	6,568.41	80.00	3.05	2.17	2.99	1,341.00	1,346.93	1,345.43	1,345.57	1,344.05
Madrona St	18,780.00	6,568.41	0.00	325.61	6,240.51	30.00	3.11	2.23	3.09	1,328.00	1,333.01	1,331.57	1,332.54	1,331.11
Valencia St	18,085.00	6,240.51	0.00	290.78	5,949.25	35.33	2.60	1.72	2.57	1,318.00	1,322.19	1,321.04	1,321.78	1,320.60
Etiwanda Ave	17,650.00	5,949.25	0.00	382.94	5,564.72	50.00	2.54	1.66	2.45	1,311.00	1,315.26	1,314.35	1,314.42	1,313.54
Rosewood St	16,290.00	5,564.72	0.00	807.67	4,756.55	50.00	4.12	3.24	4.03	1,290.00	1,295.83	1,294.93	1,294.95	1,294.12
Ramona Dr	15,480.00	4,756.55	0.00	263.75	4,492.78	35.33	2.54	1.66	2.41	1,279.60	1,283.57	1,282.53	1,282.80	1,281.88
Foothill Blvd	14,990.00	4,492.78	0.00	999.75	3,493.66	100.00	3.10	2.22	2.92	1,271.00	1,276.00	1,275.10	1,274.68	1,273.75
Holiday Pl	14,325.00	3,493.66	0.00	97.19	3,396.48	26.87	1.70	0.82	1.48	1,260.60	1,263.55	1,262.76	1,263.07	1,262.30
3rd St	14,060.00	3,396.48	0.00	84.72	3,311.78	32.58	1.31	0.43	1.19	1,255.85	1,258.27	1,257.55	1,257.66	1,256.92
2nd St	13,405.00	3,311.78	0.00	268.96	3,042.81	35.00	2.46	1.58	2.45	1,244.00	1,247.67	1,246.96	1,247.14	1,246.45
Dirt Rd	13,048.00	3,042.81	0.00	599.56	2,443.17	79.42	2.84	1.96	2.42	1,240.00	1,244.72	1,243.84	1,242.71	1,242.00
1st St	12,740.00	2,443.17	0.00	66.36	2,376.81	20.00	1.75	0.87	1.39	1,235.00	1,237.71	1,237.03	1,237.43	1,236.75
Rialto Ave	12,550.00	2,376.81	0.00	436.16	1,940.30	71.00	2.11	1.23	2.11	1,229.00	1,232.75	1,232.11	1,231.74	1,231.12
US Rail Road	11,025.00	1,940.30	0.00	1.67	1,938.61	13.06	0.29	0.29	0.15	1,214.00	1,216.18	1,215.30	1,214.00	1,212.49
Merrill Ave	9,400.00	1,938.61	0.00	0.00	1,938.61	0.00	0.00	0.00	0.00	1,186.00	1,188.42	1,186.12	1,187.14	1,184.84
Randall Ave	6,750.00	1,938.61	0.00	6.88	1,931.71	12.57	0.78	0.78	0.39	1,149.00	1,152.78	1,150.78	1,149.11	1,147.31
San Bernardino Ave & Lilac Ave	3,850.00	1,931.71	0.00	0.00	1,931.71	0.00	0.00	0.00	0.00	1,109.00	1,108.41	1,105.98	1,107.59	1,105.19
Valley Blvd	480.00	1,931.71	0.00	0.00	1,931.71	0.00	0.00	0.00	0.00	1,058.00	1,054.99	1,052.31	1,054.19	1,051.32

*Depth of flow above standard street section ground elevation at right of way

AVG, (1-14)
= 2.48'
= 1.85' (1-19)

Water Depth in Street intersection (Existing Condition Q100)

Water Depth (ft)	Cactus Ave	Lilac ave	Willow ave	Riverside Ave	Sycamore Ave
Base Line RD	2.31	0.36	1.27	0.00	0.00
W Etiwanda Ave	1.66	2.94	2.98	2.05	1.36
Foothill Blvd	2.22	0.94	0.31	0.15	0.00
Rialto Ave	1.23	2.63	1.90	0.67	0.00
W Merrill Ave	0.00	0.00	0.00	0.00	0.00
W Randall Ave	0.00	0.00	0.00	0.00	0.00
San Bernardino Ave & Lilac Ave	0.00	0.00	0.00	0.00	0.00
W Valley Blvd	0.00	0.00	0.00	0.00	0.00