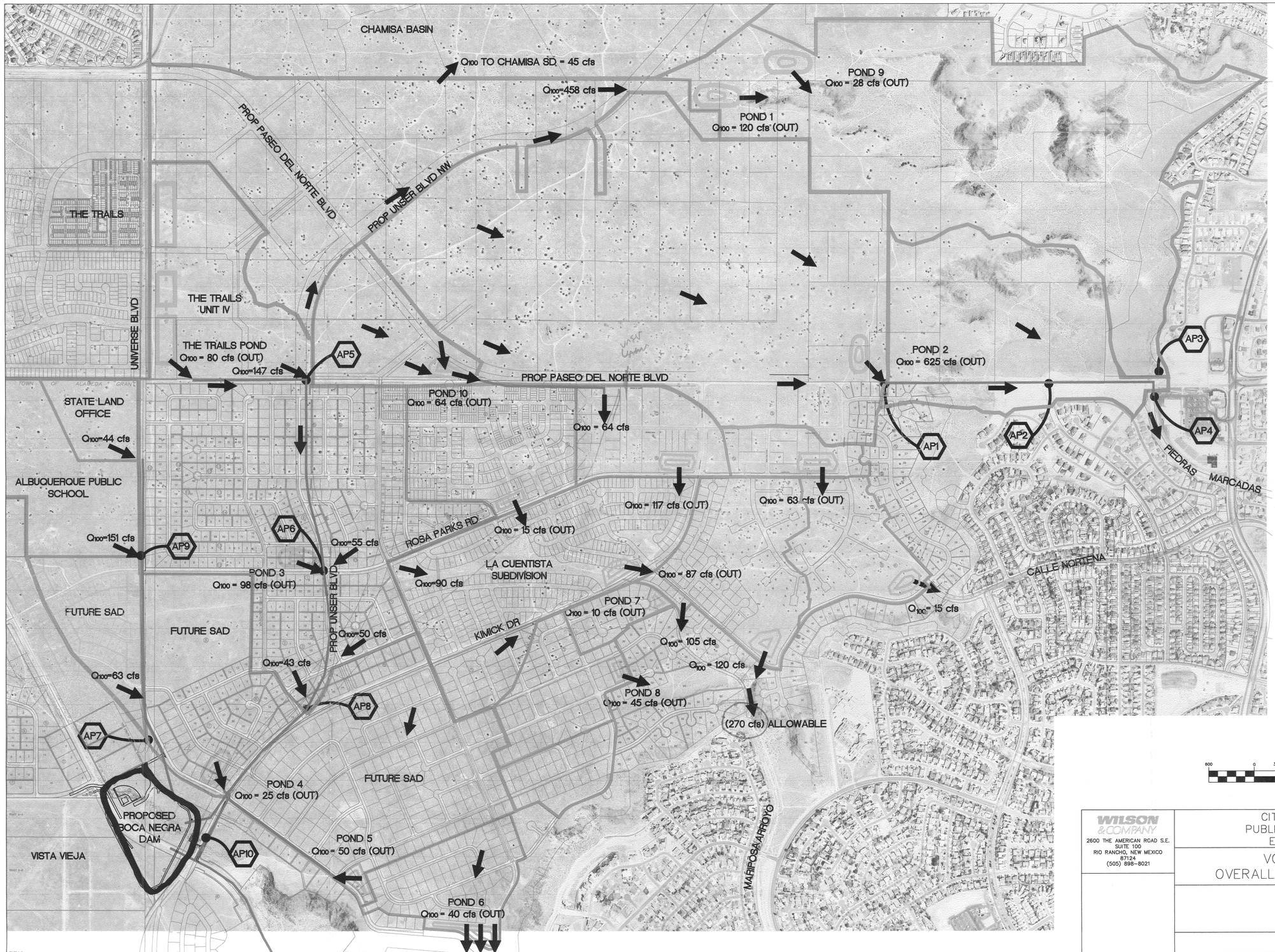


ANALYSIS POINT	FLOW (CFS)
AP1	625
AP2	647
AP3	280
AP4	821
AP5	227
AP6	330
AP7	239
AP8	439
AP9	176
AP10	80

LEGEND

- WATERSHED BOUNDARY
- FLOW DIRECTION
- AP3 — ANALYSIS POINT DESIGNATION
- REGIONAL STORM DRAIN SYSTEM

N

GRAPHIC SCALE

600 0 300 600 1200 2400

(IN FEET)
1 inch = 600 ft.

WILSON & COMPANY
2600 THE AMERICAN ROAD S.E.
SUITE 100
RIO RANCHO, NEW MEXICO
87124
(505) 898-8021

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ENGINEERING GROUP

VOLCANO HEIGHTS
OVERALL DRAINAGE ARAE PLAN

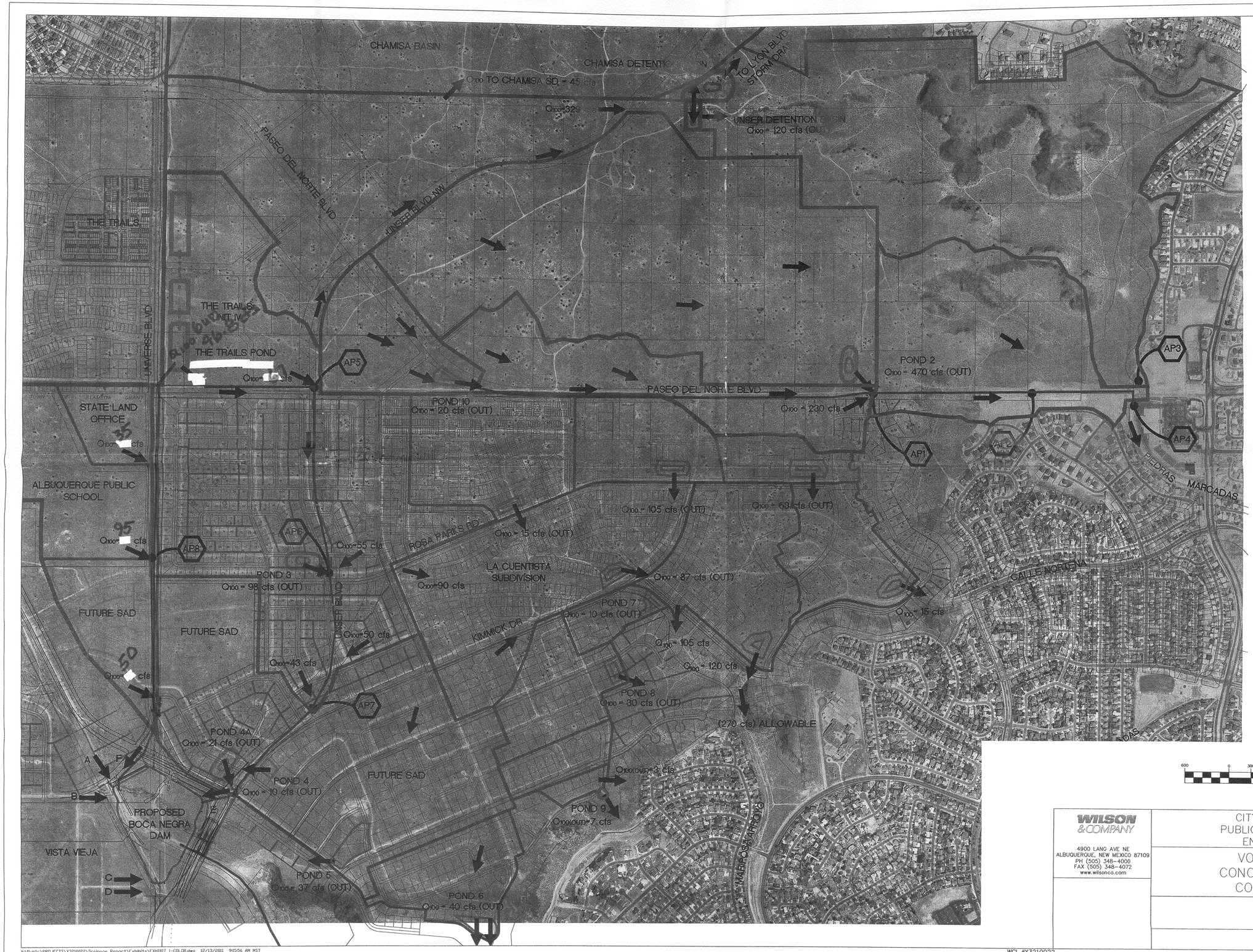
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HYDROLOGY SECTION

EXHIBIT 1

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WCI #X3210022
APRIL 2010

C-10/D36



ANALYSIS POINT	FLOW (CFS)
AP1	620
AP2	643
AP3	288
AP4	941
AP5	227
AP6	330
AP7	439
AP8	176

DISCHARGE POINT	FLOW (CFS)	STRUCTURE
A	1,060	–
B	138	48" RCP
C	200	48" RCP
D	341	60" RCP
E	454	96" RCP
F	286	66" RCP

LEGEND

- WATERSHED BOUNDARY
- FLOW DIRECTION
- AP3 — ANALYSIS POINT DESIGNATION
- REGIONAL STORM DRAIN SYSTEM

N

GRAPHIC SCALE

600 0 300 600 1200 2400

(IN FEET)
1 inch = 600 ft.

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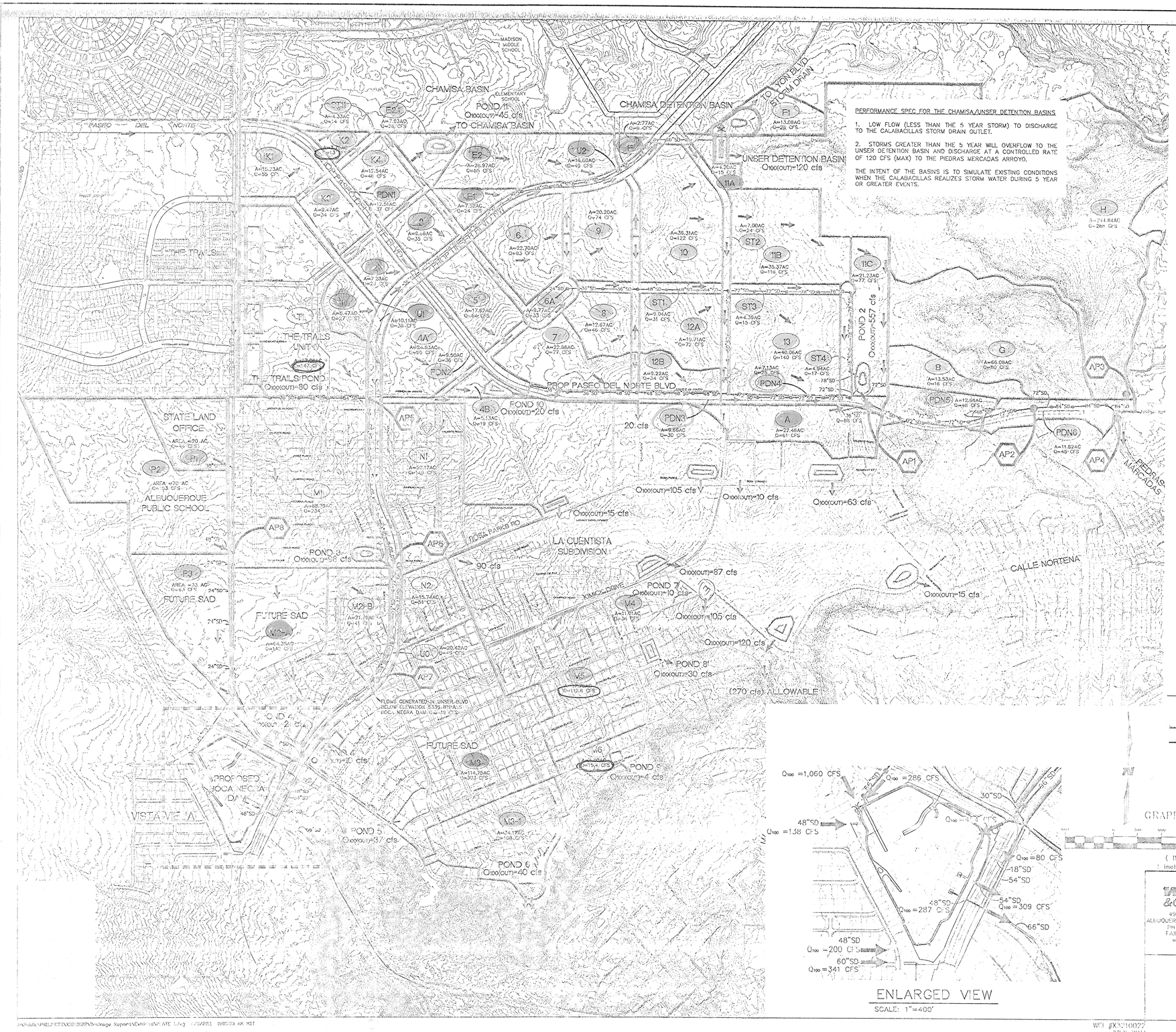
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VOLCANO HEIGHTS CONCEPTUAL DRAINAGE COMPILATION PLAN

EXHIBIT 1

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WCI #X3210022
OCTOBER 2011



ENLARGED VIEW
SCALE: 1"=400'

ANALYSIS POINT	FLOW (CFS)
AP1	620
AP2	644
AP3	288
AP4	941
AP5	227
AP6	330
AP7	439
AP8	176

LEGEND

- BASIN ID
- BASIN BOUNDARY
- STORM DRAIN
- FLOW DIRECTION
- ANALYSIS POINT ID

Table 1: Basin Summary

BASIN	AREA (SQ MI)	AREA (ACRE)	LAND TREATMENT (%) A	B	C	D	Q_{100} (CFS)	VOL_{100} (AC-FT)
BASINS DRAINING TO THE CHAMISA BASIN THROUGH POND 1[1]								
E2.1	0.0124	7.93	0	15	35	50	26	0.91
K1	0.0238	15.23	0	10	10	80	55	2.17
K2	0.0059	3.78	0	10	10	80	14	0.54
K3	0.0148	9.47	0	10	10	80	34	1.35
K4	0.0196	12.54	0	10	10	80	46	1.78
ST11	0.0068	4.33	0	10	0	90	14	0.65
BASINS DRAINING TO THE UNSER DETENTION BASIN								
1	0.0132	8.47	0	10	15	75	27	0.97
2	0.0113	7.23	0	10	15	75	26	1.00
3	0.0151	9.66	0	10	15	75	35	1.33
11A	0.0066	4.20	0	10	10	80	15	0.60
E1	0.0118	7.52	0	15	35	50	24	0.86
F2	0.0453	28.97	0	15	35	50	85	0.94
F	0.0043	2.77	0	15	35	50	9	0.26
PDN1	0.0196	12.51	0	10	0	90	37	1.89
U1	0.0158	10.11	0	10	0	90	31	1.51
U2	0.0259	16.60	0	10	0	90	49	2.34
BASINS DRAINING INTO POND 10								
4A	0.0388	24.83	0	10	10	80	90	3.53
4B	0.0080	5.12	0	10	10	80	19	0.73
PDN2	0.0148	9.50	0	10	0	90	36	1.43
BASINS DRAINING INTO POND 2								
5	0.0275	17.62	0	10	10	80	64	2.51
6	0.0355	22.70	0	10	10	80	83	3.23
7	0.0354	22.66	0	10	10	80	77	3.22
8	0.0198	12.67	0	10	10	80	46	1.80
9	0.0316	20.20	0	10	10	80	74	2.87
10	0.0567	36.29	0	10	10	80	122	5.16
13	0.0626	40.06	0	10	10	80	140	5.70
11B	0.0553	35.37	0	10	0	90	116	5.03
11C	0.0332	21.23	0	10	10	80	77	3.02
12A	0.0308	19.71	0	10	10	80	72	2.80
12B	0.0144	9.22	0	10	10	80	34	1.31
6A	0.0153	9.77	0	10	10	80	33	1.39
PDN3[4]	0.0151	9.66	0	10	0	90	30	1.46
PDN4[4]	0.0111	7.13	0	10	0	90	25	1.08
ST1	0.0141	9.04	0	10	0	90	31	1.37
ST2	0.0109	7.00	0	10	0	90	24	1.06
ST3	0.0069	4.39	0	10	0	90	15	0.66
ST4	0.0077	4.94	0	10	0	90	17	0.75
BASINS DRAINING INTO EXISTING PASEO DEL NORTE STORM DRAIN SYSTEM								
A	0.0351	22.46	0	15	35	50	61	2.58
PDN3[4]	0.0151	9.66	0	10	0	90	30	1.46
PDN4[4]	0.0111	7.13	0	10	0	90	25	1.08
BASINS DRAINING INTO PIEDRAS MARCADAS								
B	0.0211	13.53	100	0	0	0	16	0.46
F1	0.0204	13.08	0	60	40	0	28	0.76
G	0.1032	66.05	100	0	0	0	80	2.22
H	0.3826	244.84	100	0	0	0	288	7.24
PDN5	0.0198	12.66	0	10	0	90	46	1.91
PDN6	0.0185	11.82	0	10	0	90	45	1.79
BASINS DRAINING INTO BOCA NEGRA DAM								
UNIVERSE BLVD								
P1	0.0313	20.00	25	26	27	22	44	1.52
P2	0.1094	70.02	0	25	25	50	153	7.65
P3	0.0515	32.96	0	25	25	50	63	3.70
UNSER BLVD								
M1	0.1381	88.38	0	10	40	50	234	10.25
M2 B	0.0201	21.79	0	10	40	50	41	1.49
*N1[3]	0.0814	52.10	0	10	40	50	146	6.05
N2	0.0246	15.74	0	10	40	50	51	1.83
T1	0.1048	67.08	0	10	40	50	149	6.61
*U0[3]	0.0319	20.42	0	10	40	50	49	2.37
BASIN DRAINING INTO ATRISCO STORM DRAIN								
M2-A	0.1145	64.35	5	30	35	30	142	6.52
M3	0.1793	114.75	0	10	40	50	303	13.42
BASIN DRAINING INTO POND-6								
M3-1	0.0534	34.17	0	10	40	50	108	3.97
BASIN DRAINING INTO POND-7								
M4	0.0172	11.01	0	10	40	50	36	1.28
BASIN DRAINING INTO POND-8								
M5	0.0590	37.75	0	10	40	50	113	4.87
BASIN DRAINING INTO POND-9								
M6	0.0079	5.06	0	10	40	50	16	0.66

NOTES:
- DIVIDED FLOW
1 - 45 CFS FROM BASIN E2 DRAINS INTO CHAMISA STORM DRAIN (5 CFS/LOT)
2- 90 CFS DRAINS INTO LA CUENTISTA SUBDIVISION
3 - 19 CFS DRAINS INTO THE 48" OUTLET FROM BOCA NEGRA DAM
4- BASIN INCLUDES HALF OF PASEO DEL NOTRE BLVD WIDTH.

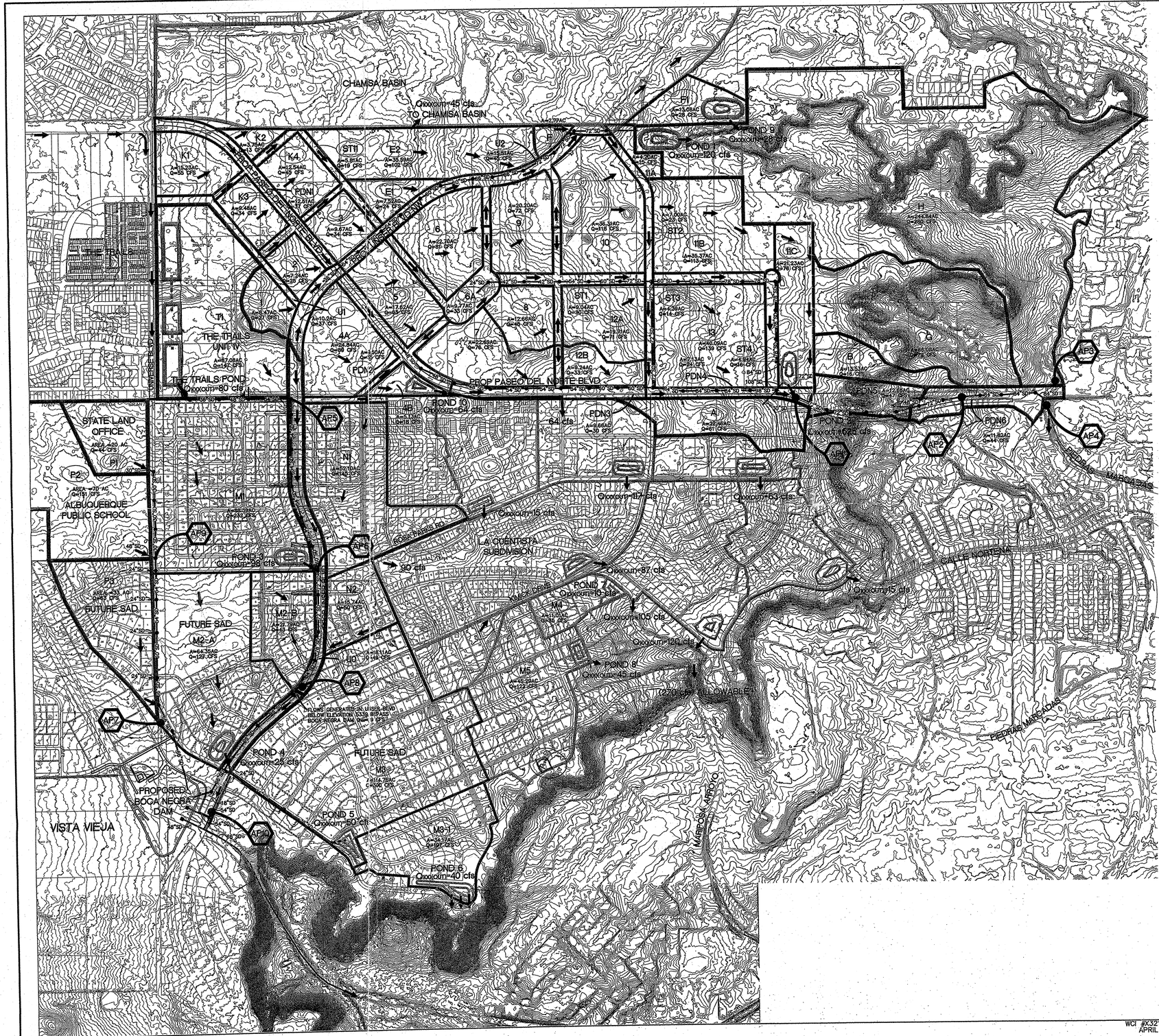
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
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VOLCANO HEIGHTS
CONCEPTUAL DRAINAGE COMPILATION PLAN

PLATE 1

WO # IX3210022
JULY 2011



BASIN	AREA (SQ MI)	AREA (ACRE)	LAND TREATMENT (%) A	B	C	D	Q_{100} (CFS)	VOL_{10} (AC-FT)
BASINS DRAINING INTO POND-1								
K1	0.0238	15.23	0	10	10	80	55	2.17
K3	0.0148	9.47	0	10	10	80	34	1.35
PDN1	0.0196	12.51	0	10	0	90	37	1.89
K4	0.0196	12.54	0	10	10	80	45	1.79
ST11	0.0091	5.81	0	10	0	90	19	0.88
1	0.0132	8.47	0	10	15	75	27	0.97
2	0.0113	7.23	0	10	15	75	25	1.00
U1	0.0158	10.14	0	10	0	90	38	1.53
K2	0.0059	3.78	0	10	10	80	13	0.54
3	0.0151	9.66	0	10	15	75	34	1.33
E1	0.0118	7.52	0	15	35	50	24	0.86
*E2[1]	0.0128	8.21	0	15	35	50	57	0.94
U2	0.0242	15.49	0	10	0	90	45	2.34
F	0.0035	2.23	0	15	35	50	7	0.26
11A	0.0066	4.20	0	10	10	80	15	0.60
BASINS DRAINING INTO POND 9								
4A	0.0388	24.83	0	10	10	80	89	3.54
4B	0.0080	5.12	0	10	10	80	18	0.73
PDN2	0.0148	9.50	0	10	0	90	35	1.43
BASINS DRAINING INTO POND-2								
5	0.0275	17.62	0	10	10	80	63	2.51
7	0.0354	22.66	0	10	10	80	77	3.23
12B	0.0144	9.22	0	10	10	80	33	1.31
PDN3	0.0187	11.97	0	10	0	90	30	1.46
PDN4	0.0111	7.13	0	10	0	90	24	1.08
13	0.0626	40.06	0	10	10	80	139	5.70
6	0.0355	22.70	0	10	10	80	81	3.23
6A	0.0153	9.77	0	10	10	80	33	1.39
8	0.0198	12.67	0	10	10	80	45	1.80
9	0.0316	20.20	0	10	10	80	72	2.88
12A	0.0308	19.71	0	10	10	80	71	2.81
10	0.0567	36.29	0	10	10	80	118	5.17
ST1	0.0141	9.04	0	10	0	90	30	1.37
ST2	0.0109	7.00	0	10	0	90	23	1.06
11B	0.0553	35.37	0	10	0	90	113	5.04
ST3	0.0069	4.39	0	10	0	90	15	0.66
ST4	0.0077	4.94	0	10	0	90	16	0.75
11C	0.0332	21.23	0	10	10	80	76	3.02
BASINS DRAINING INTO PIEDRAS MARCADAS								
A	0.0351	22.46	0	15	35	50	61	2.58
PDN5	0.0198	12.66	0	10	0	90	47	1.92
B	0.0211	13.53	100	0	0	0	16	0.45
G	0.1032	66.05	100	0	0	0	79	2.20
PDN6	0.0185	11.82	0	10	0	90	44	1.79
F1	0.0204	13.08	0	60	40	0	28	0.78
H	0.3826	244.84	100	0	0	0	280	8.16
BASINS DRAINING INTO BOCA NEGRA DAM								
UNIVERSE BLVD								
P1	0.0313	20.00	25	26	27	22	44	1.52
P2	0.1094	70.02	0	25	25	50	151	7.85
P3	0.0515	32.96	0	25	25	50	63	3.70
UNSER BLVD								
T1	0.0890	56.96	0	10	40	50	147	6.62
M1	0.1381	88.38	0	10	40	50	232	10.26
*N1[2]	0.0097	6.19	0	10	40	50	145	6.05
N2	0.0246	15.74	0	10	40	50	50	1.83
*U0[3]	0.0233	14.91	0	10	40	50	49	2.37
M2-B	0.0201	21.79	0	10	40	50	41	1.49
BASIN DRAINING INTO BOCA NEGRA DAM OVERFLOW								
M2-A	0.1145	64.35	5	30	35	30	141	6.51
M3	0.1793	114.75	0	10	40	50	300	13.33
BASIN DRAINING INTO POND-6								
M3-1	0.0534	34.17	0	10	40	50	107	3.97
BASIN DRAINING INTO POND-7								
M4	0.0172	11.01	0	10	40	50	35	1.28
BASIN DRAINING INTO POND-8								
M5	0.0708	45.29	0	10	40	50	122	5.26

NOTES:

* DIVIDED FLOW

1 - 45 CFS FROM BASIN E2 DRAINS INTO CHAMISA STORM DRAIN (5 CFS/LOT)

2- 90 CFS DRAINS INTO LA CUENTISTA SUBDIVISION

3 - 19 CFS DRAINS INTO THE 48" OUTLET FROM BOCA NEGRA DAM

ANALYSIS POINT	FLOW (CFS)
AP1	625
AP2	647
AP3	280
AP4	821
AP5	227
AP6	330
AP7	239
AP8	439
AP9	176
AP10	80

LEGEND

- (G) BASIN ID
- BASIN BOUNDARY
- STORM DRAIN
- FLOW DIRECTION
- (AP3) ANALYSIS POINT ID

N

GRAPHIC SCALE

600 0 300 600 1200 2400

(IN FEET)
1 inch = 600 ft.

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PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

VOLCANO HEIGHTS
OVERALL DRAINAGE/CONCEPTUAL STORM DRAIN LAYOUT PLAN

PLATE 1

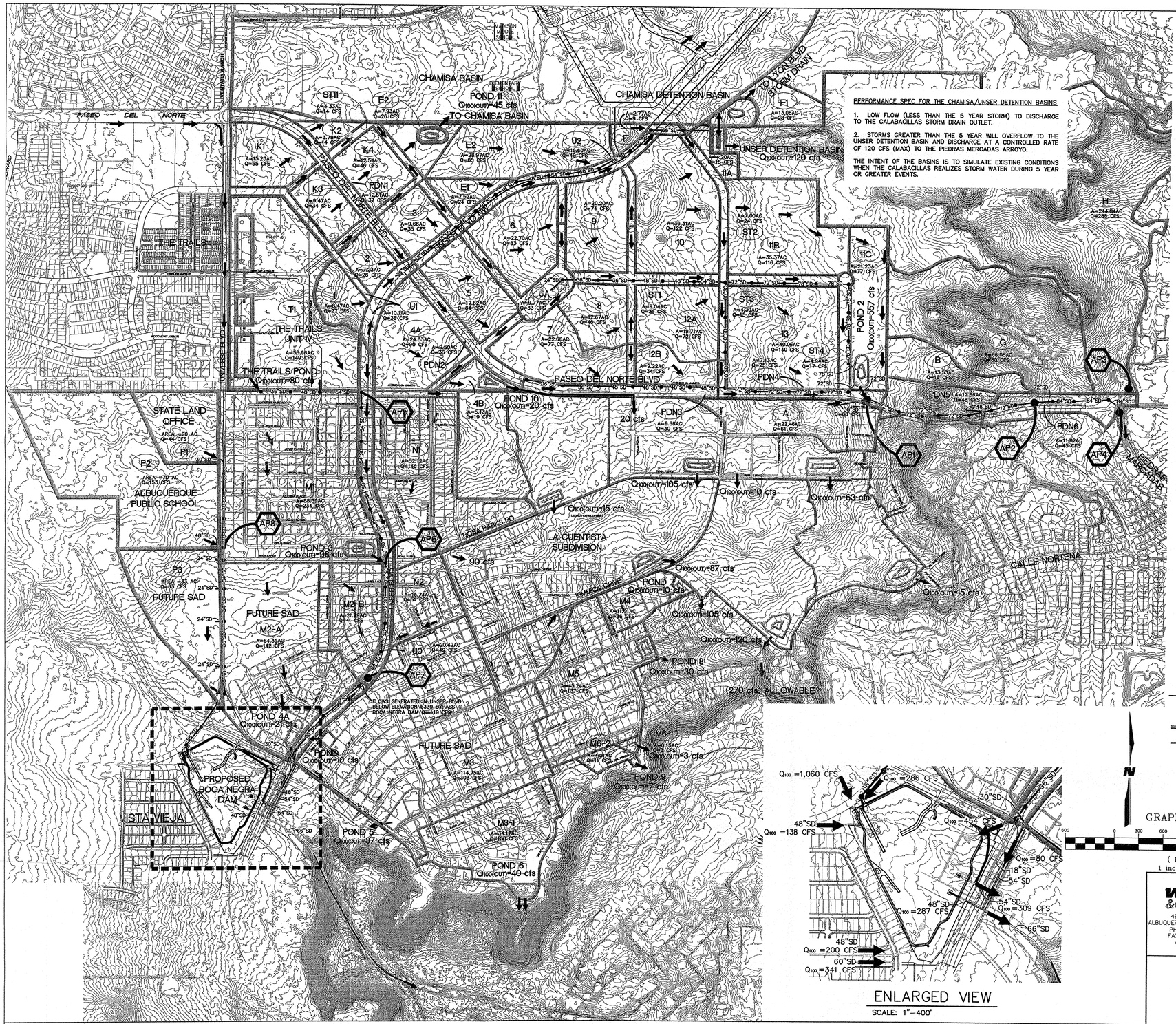
WCI #X3210022
APRIL 2010

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potential 1200ft

730085

C-14/D000



ANALYSIS POINT	FLOW (CFS)
AP1	620
AP2	644
AP3	288
AP4	941
AP5	227
AP6	330
AP7	439
AP8	176

ENLARGED VIEW
SCALE: 1"=400'

LEGEND
- G — BASIN ID
- BASIN BOUNDARY
- STORM DRAIN
- FLOW DIRECTION
- AP3 — ANALYSIS POINT ID

N

GRAPHIC SCALE
600 0 300 600 1200 2400
(IN FEET)
1 inch = 600 ft.

Table 1: Basin Summary

BASIN	AREA (SQ MI)	AREA (ACRE)	LAND TREATMENT (%) A	B	C	D	Q_{100} (CFS)	VOL_{100} (AC-FT)
BASINS DRAINING TO THE CHAMISA BASIN THROUGH POND 11[1]								
E2.1	0.0124	7.93	0	15	35	50	26	0.91
K1	0.0238	15.23	0	10	10	80	55	2.17
K2	0.0059	3.78	0	10	10	80	14	0.54
K3	0.0148	9.47	0	10	10	80	34	1.35
K4	0.0196	12.54	0	10	10	80	46	1.78
ST11	0.0068	4.33	0	10	0	90	14	0.65
BASINS DRAINING TO THE UNSER DETENTION BASIN								
1	0.0132	8.47	0	10	15	75	27	0.97
2	0.0113	7.23	0	10	15	75	26	1.00
3	0.0151	9.66	0	10	15	75	35	1.33
11A	0.0066	4.20	0	10	10	80	15	0.60
E1	0.0118	7.52	0	15	35	50	24	0.86
E2	0.0453	28.97	0	15	35	50	85	0.94
F	0.0043	2.77	0	15	35	50	9	0.26
PDN1	0.0196	12.51	0	10	0	90	37	1.89
U1	0.0158	10.11	0	10	0	90	38	1.53
U2	0.0259	16.60	0	10	0	90	49	2.34
BASINS DRAINING INTO POND 10								
4A	0.0388	24.83	0	10	10	80	90	3.53
4B	0.0080	5.12	0	10	10	80	19	0.73
PDN2	0.0148	9.50	0	10	0	90	36	1.43
BASINS DRAINING INTO POND 2								
5	0.0275	17.62	0	10	10	80	64	2.51
6	0.0355	22.70	0	10	10	80	83	3.23
7	0.0354	22.66	0	10	10	80	77	3.22
8	0.0198	12.67	0	10	10	80	46	1.80
9	0.0316	20.20	0	10	10	80	74	2.87
10	0.0567	36.29	0	10	10	80	122	5.16
13	0.0626	40.06	0	10	10	80	140	5.70
11B	0.0553	35.37	0	10	0	90	116	5.03
11C	0.0332	21.23	0	10	10	80	77	3.02
12A	0.0308	19.71	0	10	10	80	72	2.80
12B	0.0144	9.22	0	10	10	80	34	1.31
6A	0.0153	9.77	0	10	10	80	33	1.39
PDN3[4]	0.0151	9.66	0	10	0	90	30	1.46
PDN4[4]	0.0111	7.13	0	10	0	90	25	1.08
ST1	0.0141	9.04	0	10	0	90	31	1.37
ST2	0.0109	7.00	0	10	0	90	24	1.06
ST3	0.0069	4.39	0	10	0	90	15	0.66
ST4	0.0077	4.94	0	10	0	90	17	0.75
BASINS DRAINING INTO PASEO DEL NORTE STORM DRIAN SYSTEM								
PDN3[4]	0.0151	9.66	0	10	0	90	30	1.46
PDN4[4]	0.0111	7.13	0	10	0	90	25	1.08
A	0.0351	22.46	0	15	35	50	61	2.58
BASINS DRAINING INTO PIEDRAS MARCADAS								
B	0.0211	13.53	100	0	0	0	16	0.46
F1	0.0204	13.08	0	60	40	0	28	0.78
G	0.1032	66.05	100	0	0	0	80	2.22
H	0.3826	244.84	100	0	0	0	288	8.24
PDN5	0.0198	12.66	0	10	0	90	48	1.91
PDN6	0.0185	11.82	0	10	0	90	45	1.79
BASINS DRAINING INTO BOCA NEGRA DAM								
UNIVERSE BLVD								
P1	0.0313	20.00	25	26	27	22	44	1.52
P2	0.1094	70.02	0	25	25	50	153	7.85
P3	0.0515	32.96	0	25	25	50	63	3.70
UNSER BLVD								
M1	0.1381	88.38	0	10	40	50	234	10.25
M2-B	0.0201	21.79	0	10	40	50	41	1.49
*N1[3]	0.0814	52.10	0	10	40	50	146	6.05
N2	0.0246	15.74	0	10	40	50	51	1.83
T1	0.0890	56.96	0	10	40	50	149	6.61
*U0[3]	0.0319	20.42	0	10	40	50	49	2.37
BASIN DRAINING INTO ATRISCO STORM DRAIN								
M2-A	0.1145	64.35	5	30	35	30	142	6.52
M3	0.1793	114.75	0	10	40	50	303	13.32
BASIN DRAINING INTO POND-6								
M3-1	0.0534	34.17	0	10	40	50	108	3.97
BASIN DRAINING INTO POND-7								
M4	0.0172	11.01	0	10	40	50	36	1.28
BASIN DRAINING INTO POND-8								
M5	0.0707	45.25	0	10	40	50	137	5.25
BASIN M6 DRAINING INTO POND-9 AND ESCARPMENT								
M6-1[5]	0.0002	0.15	0	10	40	50	3	0.02
M6-2[6]	0.0063	4.01	0	10	40	50	11	0.47

NOTES:
* DIVIDED FLOW
1 - 45 CFS FROM BASIN E2 DRAINS INTO CHAMISA STORM DRAIN (5 CFS/LOT)
2- 90 CFS DRAINS INTO LA CUENTISTA SUBDIVISION
3 - 19 CFS DRAINS INTO THE 48" OUTLET FROM BOCA NEGRA DAM
4- BASIN INCLUDES HALF OF PASEO DEL NOTRE BLVD WIDTH.
5- FREE DISCAHRGE.
6- DRAINS INTO POND 9.

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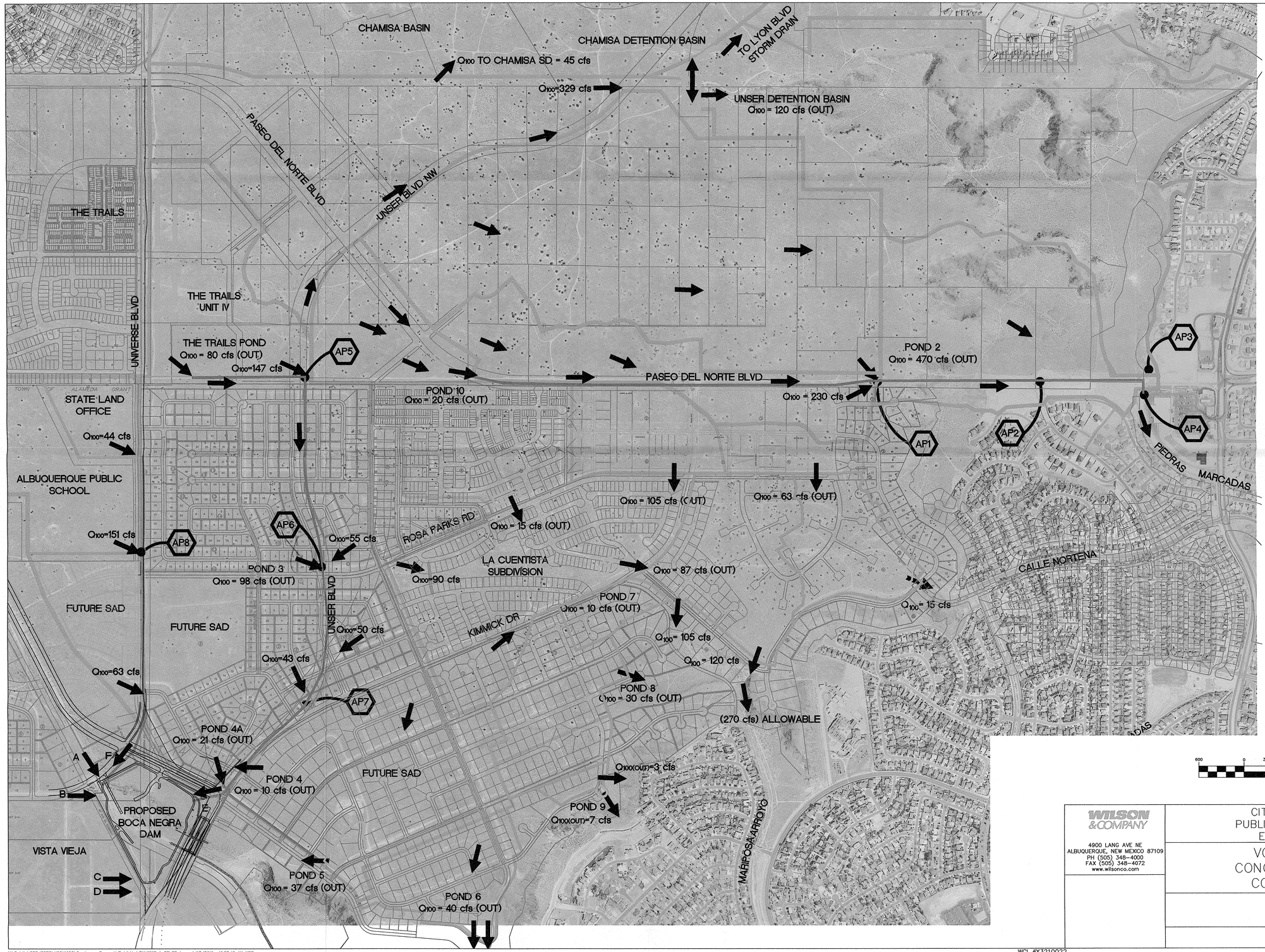
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

VOLCANO HEIGHTS
CONCEPTUAL DRAINAGE COMPILATION PLAN

PLATE 1

WCI #X3210022
OCTOBER 2011

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ANALYSIS POINT	FLOW (CFS)
AP1	620
AP2	643
AP3	288
AP4	941
AP5	227
AP6	330
AP7	439
AP8	176

DISCHARGE POINT	FLOW (CFS)	STRUCTURE
A	1,060	–
B	138	48" RCP
C	200	48" RCP
D	341	60" RCP
E	454	96" RCP
F	286	66" RCP

LEGEND

- WATERSHED BOUNDARY
- FLOW DIRECTION
- AP3 — ANALYSIS POINT DESIGNATION
- REGIONAL STORM DRAIN SYSTEM

N

GRAPHIC SCALE

600 0 300 600 1200 2400

(IN FEET)
1 inch = 600 ft.

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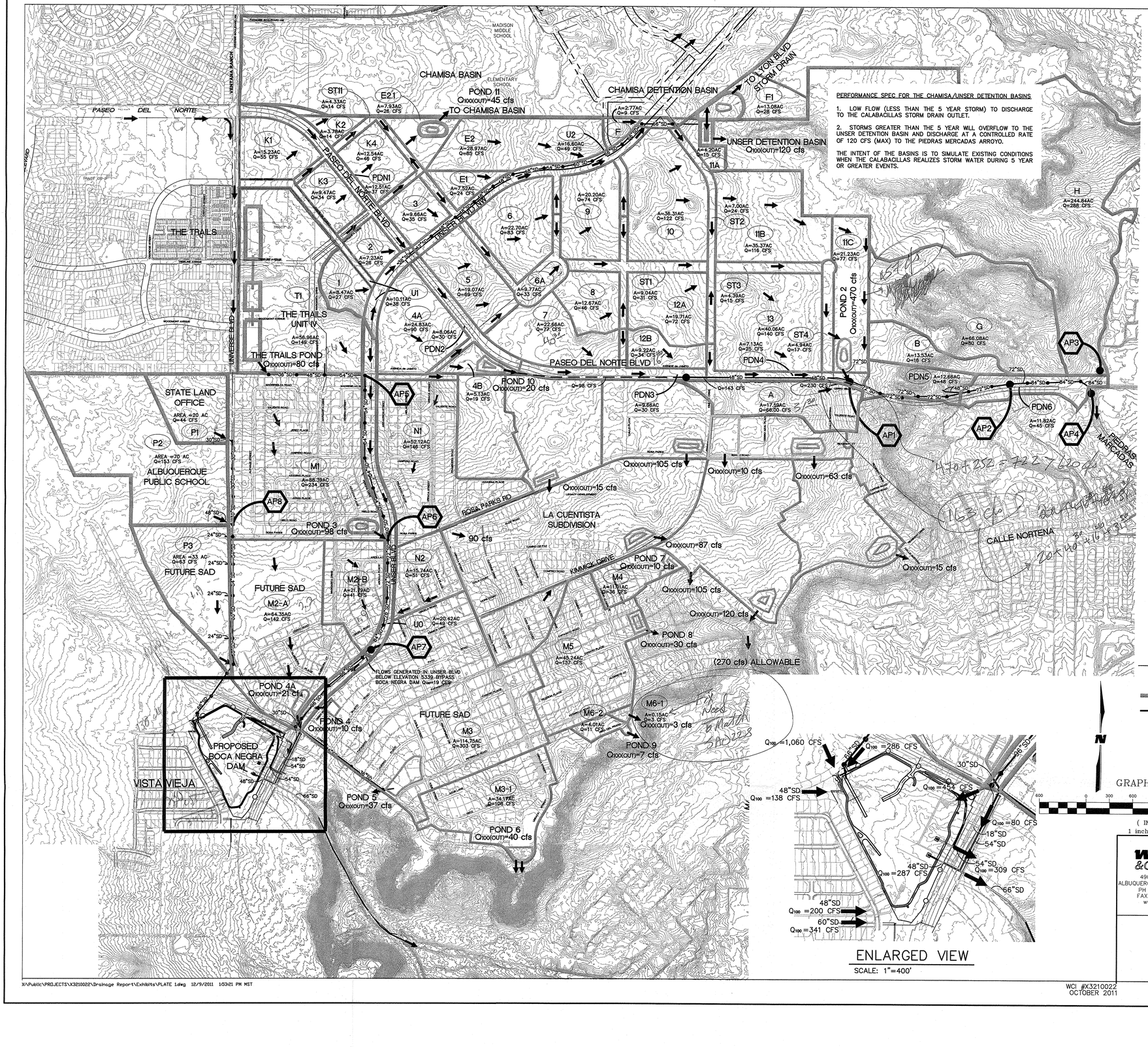
CITY OF ALBUQUERQUE
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VOLCANO HEIGHTS CONCEPTUAL DRAINAGE COMPILATION PLAN

EXHIBIT 1

WCI #X3210022
OCTOBER 2011

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ANALYSIS POINT	FLOW (CFS)
AP1	620
AP2	644
AP3	288
AP4	941
AP5	227
AP6	330
AP7	439
AP8	176

Table 1: Basin Summary

BASIN	AREA (SQ MI)	AREA (ACRE)	LAND TREATMENT (%) A	B	C	D	Q_{100} (CFS)	VOL_{100} (AC-FT)
BASINS DRAINING TO THE CHAMISA BASIN THROUGH POND 11[1]								
E2.1	0.0124	7.93	0	15	35	50	26	0.91
K1	0.0238	15.23	0	10	10	80	55	2.17
K2	0.0059	3.78	0	10	10	80	14	0.54
K3	0.0148	9.47	0	10	10	80	34	1.35
K4	0.0196	12.54	0	10	10	80	46	1.78
ST11	0.0068	4.33	0	10	0	90	14	0.65
BASINS DRAINING TO THE UNSER DETENTION BASIN								
1	0.0132	8.47	0	10	15	75	27	0.97
2	0.0113	7.23	0	10	15	75	26	1.00
3	0.0151	9.66	0	10	15	75	35	1.33
11A	0.0066	4.20	0	10	10	80	15	0.60
E1	0.0118	7.52	0	15	35	50	24	0.86
E2	0.0453	28.97	0	15	35	50	85	0.94
F	0.0043	2.77	0	15	35	50	9	0.26
PDN1	0.0196	12.51	0	10	0	90	37	1.89
U1	0.0158	10.11	0	10	0	90	38	1.53
U2	0.0259	16.60	0	10	0	90	49	2.34
BASINS DRAINING INTO POND 2								
5	0.0298	19.07	0	10	10	80	69	2.71
6	0.0355	22.70	0	10	10	80	83	3.23
8	0.0198	12.67	0	10	10	80	46	1.80
9	0.0316	20.20	0	10	10	80	74	2.87
10	0.0567	36.29	0	10	10	80	122	5.16
13	0.0626	40.06	0	10	10	80	140	5.70
11B	0.0553	35.37	0	10	0	90	116	5.03
11C	0.0332	21.23	0	10	10	80	77	3.02
12A	0.0308	19.71	0	10	10	80	72	2.80
6A	0.0153	9.77	0	10	10	80	33	1.39
ST1	0.0141	9.04	0	10	0	90	31	1.37
ST2	0.0109	7.00	0	10	0	90	24	1.06
ST3	0.0069	4.39	0	10	0	90	15	0.66
ST4	0.0077	4.94	0	10	0	90	17	0.75
BASINS DRAINING INTO PASEO DEL NORTE STORM DRIAN SYSTEM								
4A[4]	0.0388	24.83	0	10	10	80	90	3.53
4B[4]	0.0080	5.12	0	10	10	80	19	0.73
PDN2[4]	0.0126	8.06	0	10	0	90	30	1.22
7	0.0354	22.66	0	10	10	80	77	3.22
12B	0.0144	9.22	0	10	10	80	34	1.31
PDN3	0.0151	9.66	0	10	0	90	30	1.46
PDN4	0.0111	7.13	0	10	0	90	25	1.08
A	0.0275	17.60	0	5	10	85	66	2.60
BASINS DRAINING INTO PIEDRAS MARCADAS								
B	0.0211	13.53	100	0	0	0	16	0.46
F1	0.0204	13.08	0	60	40	0	28	0.78
G	0.1032	66.05	100	0	0	0	80	2.22
H	0.3826	244.84	100	0	0	0	288	8.24
PDN5	0.0198	12.66	0	10	0	90	48	1.91
PDN6	0.0185	11.82	0	10	0	90	45	1.79
BASINS DRAINING INTO BOCA NEGRA DAM								
UNIVERSE BLVD								
P1	0.0313	20.00	25	26	27	22	44	1.52
P2	0.1094	70.02	0	25	25	50	153	7.85
P3	0.0515	32.96	0	25	25	50	63	3.70
UNSER BLVD								
M1	0.1381	88.38	0	10	40	50	234	10.25
M2-B	0.0201	21.79	0	10	40	50	41	1.49
*N1[3]	0.0814	52.10	0	10	40	50	146	6.05
N2	0.0246	15.74	0	10	40	50	51	1.83
T1	0.0890	56.96	0	10	40	50	149	6.61
*U0[3]	0.0319	20.42	0	10	40	50	49	2.37
BASIN DRAINING INTO ATRISCO STORM DRAIN								
M2-A	0.1145	64.35	5	30	35	30	142	6.52
M3	0.1793	114.75	0	10	40	50	303	13.32
BASIN DRAINING INTO POND-6								
M3-1	0.0534	34.17	0	10	40	50	108	3.97
BASIN DRAINING INTO POND-7								
M4	0.0172	11.01	0	10	40	50	36	1.28
BASIN DRAINING INTO POND-8								
M5	0.0707	45.25	0	10	40	50	137	5.25
BASIN M6 DRAINING INTO POND-9 AND ESCARPMENT								
M6-1[5]	0.0002	0.15	0	10	40	50	3	0.02
M6-2[6]	0.0063	4.01	0	10	40	50	11	0.47

NOTES:
* DIVIDED FLOW
1 - 45 CFS FROM BASIN E2 DRAINS INTO CHAMISA STORM DRAIN (5 CFS/LOT)
2- 90 CFS DRAINS INTO LA CUENTISTA SUBDIVISION
3 - 19 CFS DRAINS INTO THE 48" OUTLET FROM BOCA NEGRA DAM
4- ROUTED THROUGH POND 10
5- FREE DISCAHRGE.
6- DRAINS INTO POND 9.

LEGEND
- G — BASIN ID
- BASIN BOUNDARY
- STORM DRAIN
- FLOW DIRECTION
- AP3 — ANALYSIS POINT ID

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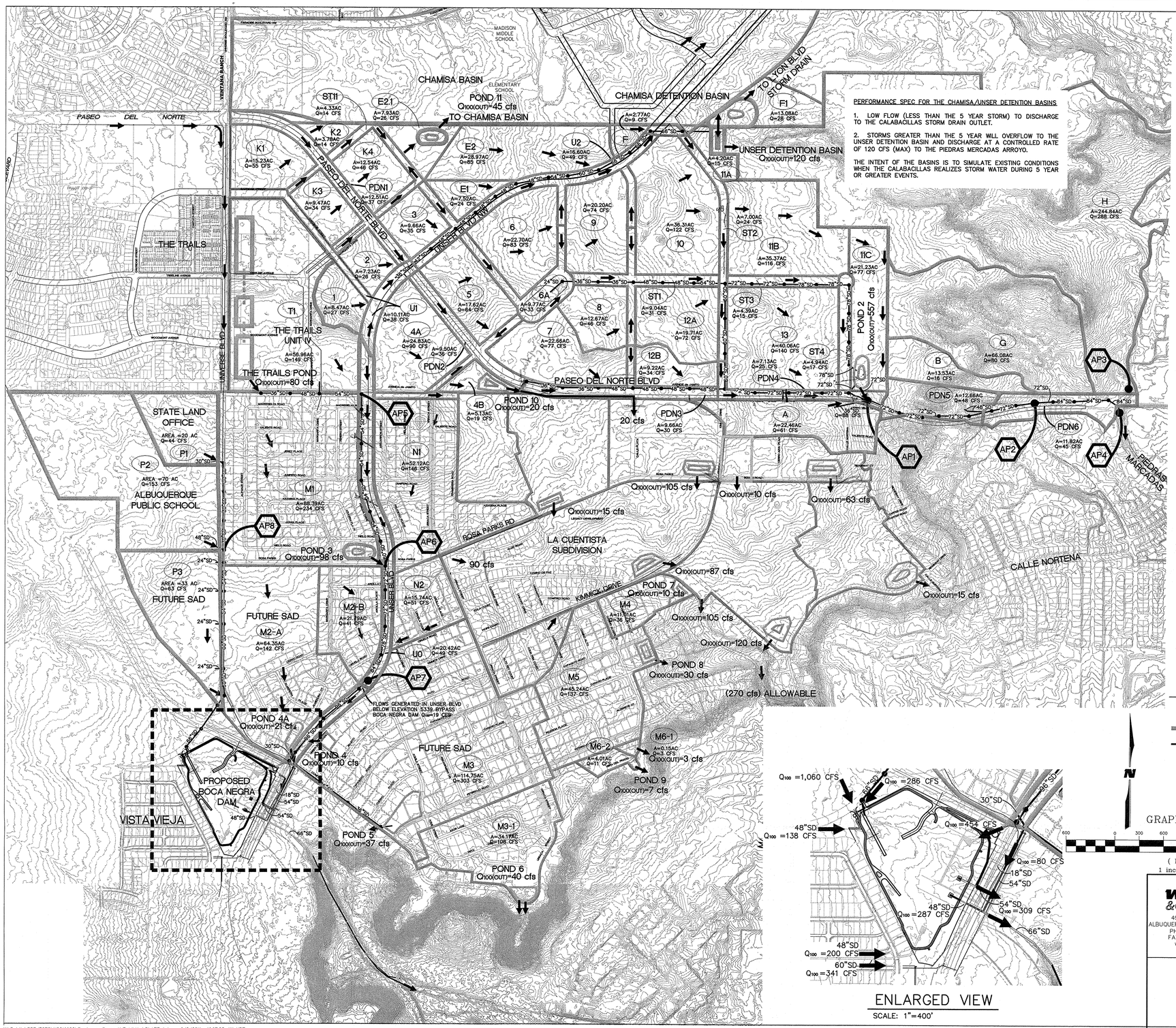
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VOLCANO HEIGHTS CONCEPTUAL DRAINAGE COMPILATION PLAN

PLATE 1

WCI #X3210022
OCTOBER 2011

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ANALYSIS POINT	FLOW (CFS)
AP1	620
AP2	644
AP3	288
AP4	941
AP5	227
AP6	330
AP7	439
AP8	176

LEGEND

- G — BASIN ID
- BASIN BOUNDARY
- STORM DRAIN
- FLOW DIRECTION
- AP3 — ANALYSIS POINT ID

Table 1: Basin Summary

BASIN	AREA (SQ MI)	AREA (ACRE)	LAND TREATMENT (%) A	B	C	D	Q_{100} (CFS)	VOL_{100} (AC-FT)
BASINS DRAINING TO THE CHAMISA BASIN THROUGH POND 11[1]								
E2.1	0.0124	7.93	0	15	35	50	26	0.91
K1	0.0238	15.23	0	10	10	80	55	2.17
K2	0.0059	3.78	0	10	10	80	14	0.54
K3	0.0148	9.47	0	10	10	80	34	1.35
K4	0.0196	12.54	0	10	10	80	46	1.78
ST11	0.0068	4.33	0	10	0	90	14	0.65
BASINS DRAINING TO THE UNSER DETENTION BASIN								
1	0.0132	8.47	0	10	15	75	27	0.97
2	0.0113	7.23	0	10	15	75	26	1.00
3	0.0151	9.66	0	10	15	75	35	1.33
11A	0.0066	4.20	0	10	10	80	15	0.60
E1	0.0118	7.52	0	15	35	50	24	0.86
E2	0.0453	28.97	0	15	35	50	85	0.94
F	0.0043	2.77	0	15	35	50	9	0.26
PDN1	0.0196	12.51	0	10	0	90	37	1.89
U1	0.0158	10.11	0	10	0	90	38	1.53
U2	0.0259	16.60	0	10	0	90	49	2.34
BASINS DRAINING INTO POND 10								
4A	0.0388	24.83	0	10	10	80	90	3.53
4B	0.0080	5.12	0	10	10	80	19	0.73
PDN2	0.0148	9.50	0	10	0	90	36	1.43
BASINS DRAINING INTO POND 2								
5	0.0275	17.62	0	10	10	80	64	2.51
6	0.0355	22.70	0	10	10	80	83	3.23
7	0.0354	22.66	0	10	10	80	77	3.22
8	0.0198	12.67	0	10	10	80	46	1.80
9	0.0316	20.20	0	10	10	80	74	2.87
10	0.0567	36.29	0	10	10	80	122	5.16
13	0.0626	40.06	0	10	10	80	140	5.70
11B	0.0553	35.37	0	10	0	90	116	5.03
11C	0.0332	21.23	0	10	10	80	77	3.02
12A	0.0308	19.71	0	10	10	80	72	2.80
12B	0.0144	9.22	0	10	10	80	34	1.31
6A	0.0153	9.77	0	10	10	80	33	1.39
PDN3[4]	0.0151	9.66	0	10	0	90	30	1.46
PDN4[4]	0.0111	7.13	0	10	0	90	25	1.08
ST1	0.0141	9.04	0	10	0	90	31	1.37
ST2	0.0109	7.00	0	10	0	90	24	1.06
ST3	0.0069	4.39	0	10	0	90	15	0.66
ST4	0.0077	4.94	0	10	0	90	17	0.75
BASINS DRAINING INTO PASEO DEL NORTE STORM DRIAN SYSTEM								
PDN3[4]	0.0151	9.66	0	10	0	90	30	1.46
PDN4[4]	0.0111	7.13	0	10	0	90	25	1.08
A	0.0351	22.46	0	15	35	50	61	2.58
BASINS DRAINING INTO PIEDRAS MARCADAS								
B	0.0211	13.53	100	0	0	0	16	0.46
F1	0.0204	13.08	0	60	40	0	28	0.78
G	0.1032	66.05	100	0	0	0	80	2.22
H	0.3826	244.84	100	0	0	0	288	8.24
PDN5	0.0198	12.66	0	10	0	90	48	1.91
PDN6	0.0185	11.82	0	10	0	90	45	1.79
BASINS DRAINING INTO BOCA NEGRA DAM								
UNIVERSE BLVD								
P1	0.0313	20.00	25	26	27	22	44	1.52
P2	0.1094	70.02	0	25	25	50	153	7.85
P3	0.0515	32.96	0	25	25	50	63	3.70
UNSER BLVD								
M1	0.1381	88.38	0	10	40	50	234	10.25
M2-B	0.0201	21.79	0	10	40	50	41	1.49
*N1[2]	0.0814	52.10	0	10	40	50	146	6.05
N2	0.0246	15.74	0	10	40	50	51	1.83
T1	0.0890	56.96	0	10	40	50	149	6.61
*U0[3]	0.0319	20.42	0	10	40	50	49	2.37
BASIN DRAINING INTO ATRISCO STORM DRAIN								
M2-A	0.1145	64.35	5	30	35	30	142	6.52
M3	0.1793	114.75	0	10	40	50	303	13.32
BASIN DRAINING INTO POND-6								
M3-1	0.0534	34.17	0	10	40	50	108	3.97
BASIN DRAINING INTO POND-7								
M4	0.0172	11.01	0	10	40	50	36	1.28
BASIN DRAINING INTO POND-8								
M5	0.0707	45.25	0	10	40	50	137	5.25
BASIN M6 DRAINING INTO POND-9 AND ESCARPMENT								
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M6-2[6]	0.0063	4.01	0	10	40	50	11	0.47

NOTES:
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1- 45 CFS FROM BASIN E2 DRAINS INTO CHAMISA STORM DRAIN (5 CFS/LOT)
2- 90 CFS DRAINS INTO LA CUENTISTA SUBDIVISION
3 - 19 CFS DRAINS INTO THE 48" OUTLET FROM BOCA NEGRA DAM
4- BASIN INCLUDES HALF OF PASEO DEL NOTRE BLVD WIDTH.
5- FREE DISCAHRGE.
6- DRAINS INTO POND 9.

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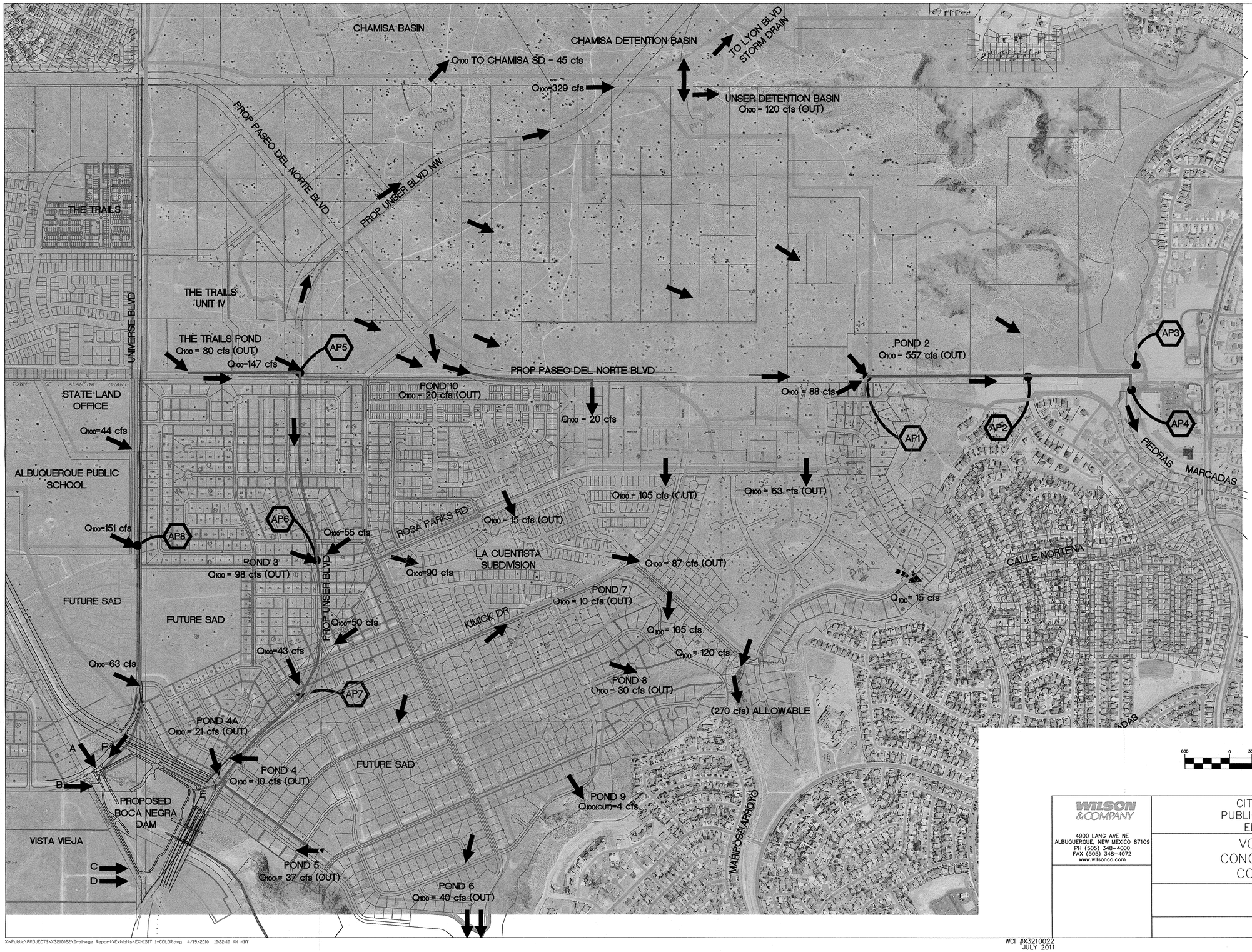
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VOLCANO HEIGHTS CONCEPTUAL DRAINAGE COMPILATION PLAN

PLATE 1

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WCI #X3210022
OCTOBER 2011



ANALYSIS POINT	FLOW (CFS)
AP1	620
AP2	643
AP3	288
AP4	824
AP5	227
AP6	330
AP7	439
AP8	176

DISCHARGE POINT	FLOW (CFS)	STRUCTURE
A	1,060	–
B	138	48" RCP
C	200	48" RCP
D	341	60" RCP
E	454	96" RCP
F	286	66" RCP

LEGEND

- WATERSHED BOUNDARY
- FLOW DIRECTION
- AP3 — ANALYSIS POINT DESIGNATION
- REGIONAL STORM DRAIN SYSTEM

N

GRAPHIC SCALE

600 0 300 600 1200 2400

(IN FEET)
1 inch = 600 ft.

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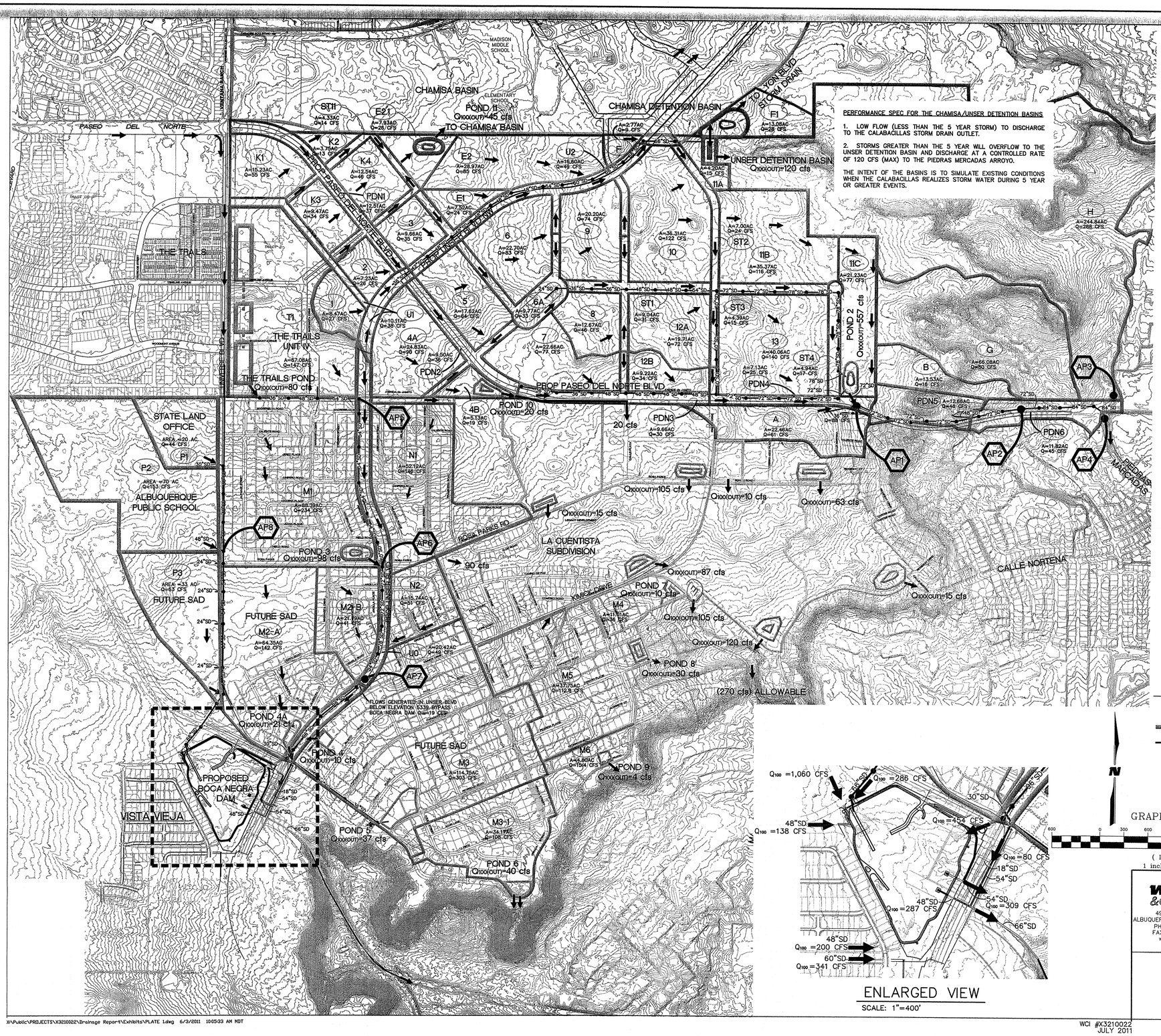
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PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

VOLCANO HEIGHTS CONCEPTUAL DRAINAGE COMPILATION PLAN

EXHIBIT 1

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WCI #X3210022
JULY 2011



ANALYSIS POINT	FLOW (CFS)
AP1	620
AP2	644
AP3	288
AP4	941
AP5	227
AP6	330
AP7	439
AP8	176

LEGEND

- G — BASIN ID
- BASIN BOUNDARY
- STORM DRAIN
- FLOW DIRECTION
- AP3 — ANALYSIS POINT ID

Table 1: Basin Summary

BASIN	AREA (SQ MI)	AREA (ACRE)	LAND TREATMENT (%) A	B	C	D	Q_{100} (CFS)	VOL_{100} (AC-FT)
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K2	0.0059	3.78	0	10	10	80	14	0.54
K3	0.0148	9.47	0	10	10	80	34	1.35
K4	0.0196	12.54	0	10	10	80	46	1.78
ST11	0.0068	4.33	0	10	0	90	14	0.65
BASINS DRAINING TO THE UNSER DETENTION BASIN								
1	0.0132	8.47	0	10	15	75	27	0.97
2	0.0113	7.23	0	10	15	75	26	1.00
3	0.0151	9.66	0	10	15	75	35	1.33
11A	0.0066	4.20	0	10	10	80	15	0.60
E1	0.0118	7.52	0	15	35	50	24	0.86
E2	0.0453	28.97	0	15	35	50	85	0.94
F	0.0043	2.77	0	15	35	50	9	0.26
PDN1	0.0196	12.51	0	10	0	90	37	1.89
U1	0.0158	10.11	0	10	0	90	38	1.53
U2	0.0259	16.60	0	10	0	90	49	2.34
BASINS DRAINING INTO POND 10								
4A	0.0388	24.83	0	10	10	80	90	3.53
4B	0.0080	5.12	0	10	10	80	19	0.73
PDN2	0.0148	9.50	0	10	0	90	36	1.43
BASINS DRAINING INTO POND 2								
5	0.0275	17.62	0	10	10	80	64	2.51
6	0.0355	22.70	0	10	10	80	83	3.23
7	0.0354	22.66	0	10	10	80	77	3.22
8	0.0198	12.67	0	10	10	80	46	1.80
9	0.0316	20.20	0	10	10	80	74	2.87
10	0.0567	36.29	0	10	10	80	122	5.16
13	0.0626	40.06	0	10	10	80	140	5.70
11B	0.0553	35.37	0	10	0	90	116	5.03
11C	0.0332	21.23	0	10	10	80	77	3.02
12A	0.0308	19.71	0	10	10	80	72	2.80
12B	0.0144	9.22	0	10	10	80	34	1.31
6A	0.0153	9.77	0	10	10	80	33	1.39
PDN3[4]	0.0151	9.66	0	10	0	90	30	1.46
PDN4[4]	0.0111	7.13	0	10	0	90	25	1.08
ST1	0.0141	9.04	0	10	0	90	31	1.37
ST2	0.0109	7.00	0	10	0	90	24	1.06
ST3	0.0069	4.39	0	10	0	90	15	0.66
ST4	0.0077	4.94	0	10	0	90	17	0.75
BASINS DRAINING INTO EXISTING PASEO DEL NORTE STORM DRAIN SYSTEM								
A	0.0351	22.46	0	15	35	50	61	2.58
PDN3[4]	0.0151	9.66	0	10	0	90	30	1.46
PDN4[4]	0.0111	7.13	0	10	0	90	25	1.08
BASINS DRAINING INTO PIEDRAS MARCADAS								
B	0.0211	13.53	100	0	0	0	16	0.46
F1	0.0204	13.08	0	60	40	0	28	0.78
G	0.1032	66.05	100	0	0	0	80	2.22
H	0.3826	244.84	100	0	0	0	288	8.24
PDN5	0.0198	12.66	0	10	0	90	48	1.91
PDN6	0.0185	11.82	0	10	0	90	45	1.79
BASINS DRAINING INTO BOCA NEGRA DAM								
UNIVERSE BLVD								
P1	0.0313	20.00	25	26	27	22	44	1.52
P2	0.1094	70.02	0	25	25	50	153	7.85
P3	0.0515	32.96	0	25	25	50	63	3.70
UNSER BLVD								
M1	0.1381	88.38	0	10	40	50	234	10.25
M2-B	0.0201	21.79	0	10	40	50	41	1.49
*N1[2]	0.0814	52.10	0	10	40	50	146	6.05
N2	0.0246	15.74	0	10	40	50	51	1.83
T1	0.1048	67.08	0	10	40	50	149	6.61
*U0[3]	0.0319	20.42	0	10	40	50	49	2.37
BASIN DRAINING INTO ATRISCO STORM DRAIN								
M2-A	0.1145	64.35	5	30	35	30	142	6.52
M3	0.1793	114.75	0	10	40	50	303	13.32
BASIN DRAINING INTO POND-6								
M3-1	0.0534	34.17	0	10	40	50	108	3.97
BASIN DRAINING INTO POND-7								
M4	0.0172	11.01	0	10	40	50	36	1.28
BASIN DRAINING INTO POND-8								
M5	0.0590	37.75	0	10	40	50	113	4.87
BASIN DRAINING INTO POND-9								
M6	0.0079	5.06	0	10	40	50	16	0.65

NOTES:

* DIVIDED FLOW

1 - 45 CFS FROM BASIN E2 DRAINS INTO CHAMISA STORM DRAIN (5 CFS/LOT)

2- 90 CFS DRAINS INTO LA CUENTISTA SUBDIVISION

3 - 19 CFS DRAINS INTO THE 48" OUTLET FROM BOCA NEGRA DAM

4- BASIN INCLUDES HALF OF PASEO DEL NOTRE BLVD WIDTH.

WILSON & COMPANY
4900 LANG AVE NE
ALBUQUERQUE, NEW MEXICO 87109
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

VOLCANO HEIGHTS
CONCEPTUAL DRAINAGE COMPILATION PLAN

PLATE 1

WCI #X3210022
JULY 2011

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CHAMISA BASIN

CHAMISA DETENTION BASIN

TO LYON BLVD STORM DRAIN

Q_{100} TO CHAMISA SD = 45 cfs

Q_{100}=329 cfs

UNSER DETENTION BASIN
Q_{100} = 120 cfs (OUT)

PASEO DEL NORTE BLVD

UNSER BLVD NW

THE TRAILS

UNIVERSE BLVD

THE TRAILS
UNIT IV

THE TRAILS POND
Q_{100} = 80 cfs (OUT)

Q_{100}=147 cfs

AP5

PASEO DEL NORTE BLVD

POND 10
Q_{100} = 20 cfs (OUT)

Q_{100} = 20 cfs

POND 2
Q_{100} = 557 cfs (OUT)

AP3

Q_{100} = 88 cfs

AP1

AP2

AP4

PIEDRAS MARCADAS

TOWN OF ALAMEDA GRANT

STATE LAND
OFFICE

Q_{100}=44 cfs

ALBUQUERQUE PUBLIC
SCHOOL

Q_{100} = 105 cfs (OUT)

Q_{100} = 63 cfs (OUT)

Q_{100}=151 cfs

AP8

AP6

Q_{100}=55 cfs

ROSA PARKS RD

Q_{100} = 15 cfs (OUT)

LA CUENTISTA
SUBDIVISION

Q_{100} = 87 cfs (OUT)

CALLE NORTENA

POND 3
Q_{100} = 98 cfs (OUT)

Q_{100}=90 cfs

FUTURE SAD

FUTURE SAD

UNSER BLVD

POND 7
Q_{100} = 10 cfs (OUT)

Q_{100}= 15 cfs

Q_{100}=50 cfs

KIMMICK DR

Q_{100}= 105 cfs

Q_{100}=43 cfs

Q_{100}= 120 cfs

Q_{100}=63 cfs

POND 8
Q_{100} = 30 cfs (OUT)

AP7

(270 cfs) ALLOWABLE

POND 4A
Q_{100} = 21 cfs (OUT)

A

F

POND 4
Q_{100} = 10 cfs (OUT)

FUTURE SAD

$Q_{100(OUT)}$=3 cfs

B

PROPOSED
BOCA NEGRA
DAM

E

POND 9
$Q_{100(OUT)}$=7 cfs

MARIPOSA ARROYO

VISTA VIEJA

C

D

POND 5
Q_{100} = 37 cfs (OUT)

POND 6
Q_{100} = 40 cfs (OUT)

ANALYSIS POINT	FLOW (CFS)
AP1	620
AP2	643
AP3	288
AP4	824
AP5	227
AP6	330
AP7	439
AP8	176

DISCHARGE POINT	FLOW (CFS)	STRUCTURE
A	1,060	–
B	138	48" RCP
C	200	48" RCP
D	341	60" RCP
E	454	96" RCP
F	286	66" RCP

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HYDROLOGY SECTION

LEGEND

- WATERSHED BOUNDARY
- FLOW DIRECTION
- AP3 ANALYSIS POINT DESIGNATION
- REGIONAL STORM DRAIN SYSTEM

N

GRAPHIC SCALE

600 0 300 600 1200 2400

(IN FEET)
1 inch = 600 ft.

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EXHIBIT 1

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