XI. APPENDICES

A. Plots of Sample Cells on 7.5 Minute U.S. Geological Survey Maps

B. Detailed Data Concerning Properties of Urban Vegetation Determined in the CSCAB Study Area

C. Flow Charts for Thirteen Methods Used to Calculate Total Emissions of Isoprene and Selected Monoterpenes in the Urban Portion of the Study Area

D. Availability of Emissions by UTM Grid System Cells

APPENDIX A

Plots of Sample Cells on 7.5 Minute U.S. Geological Survey Maps

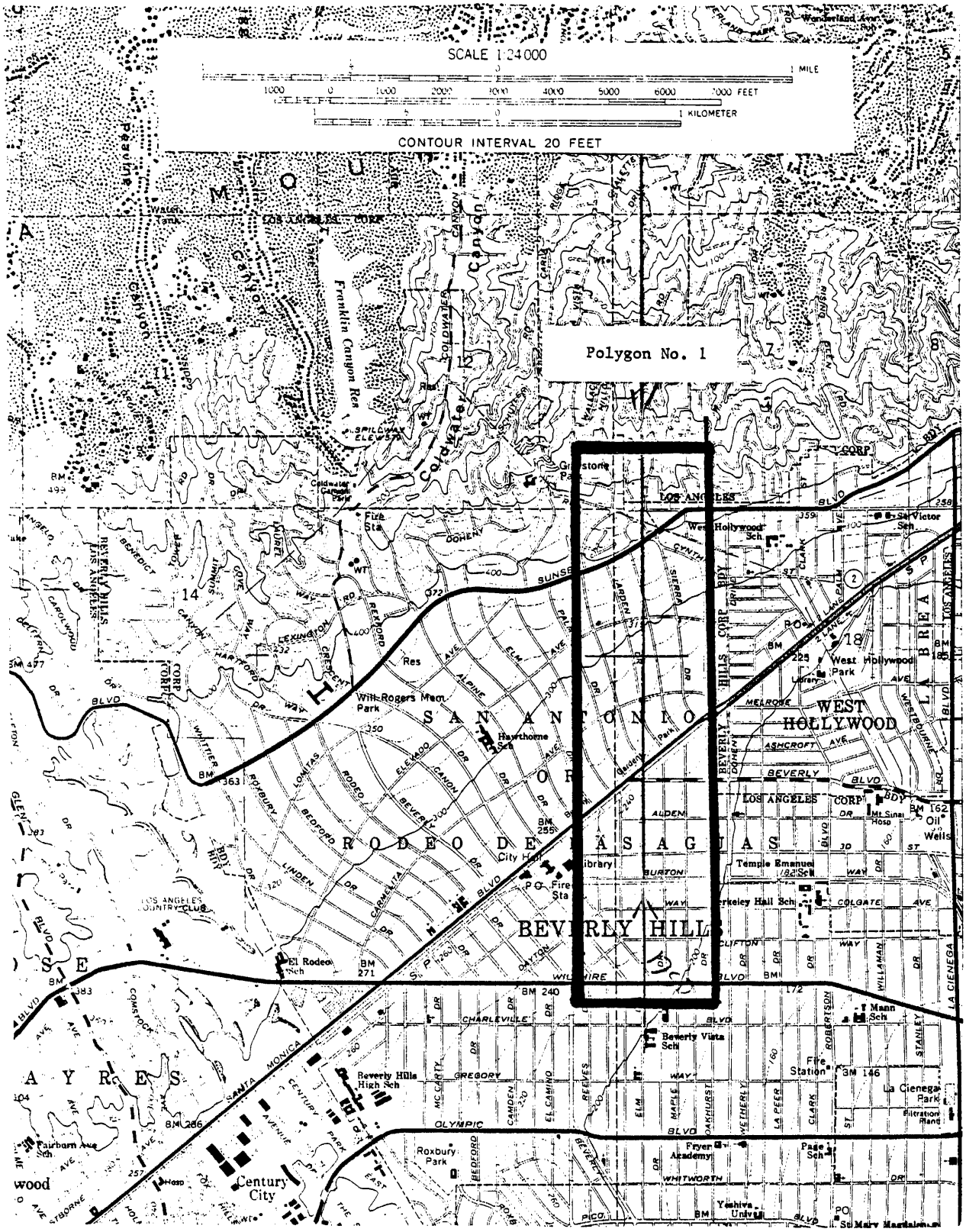


Figure A-1. Portion of 7.5 minute U.S. Geological Survey Map for Beverly Hills Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 1 for which aerial photography was taken and in which field survey was conducted.

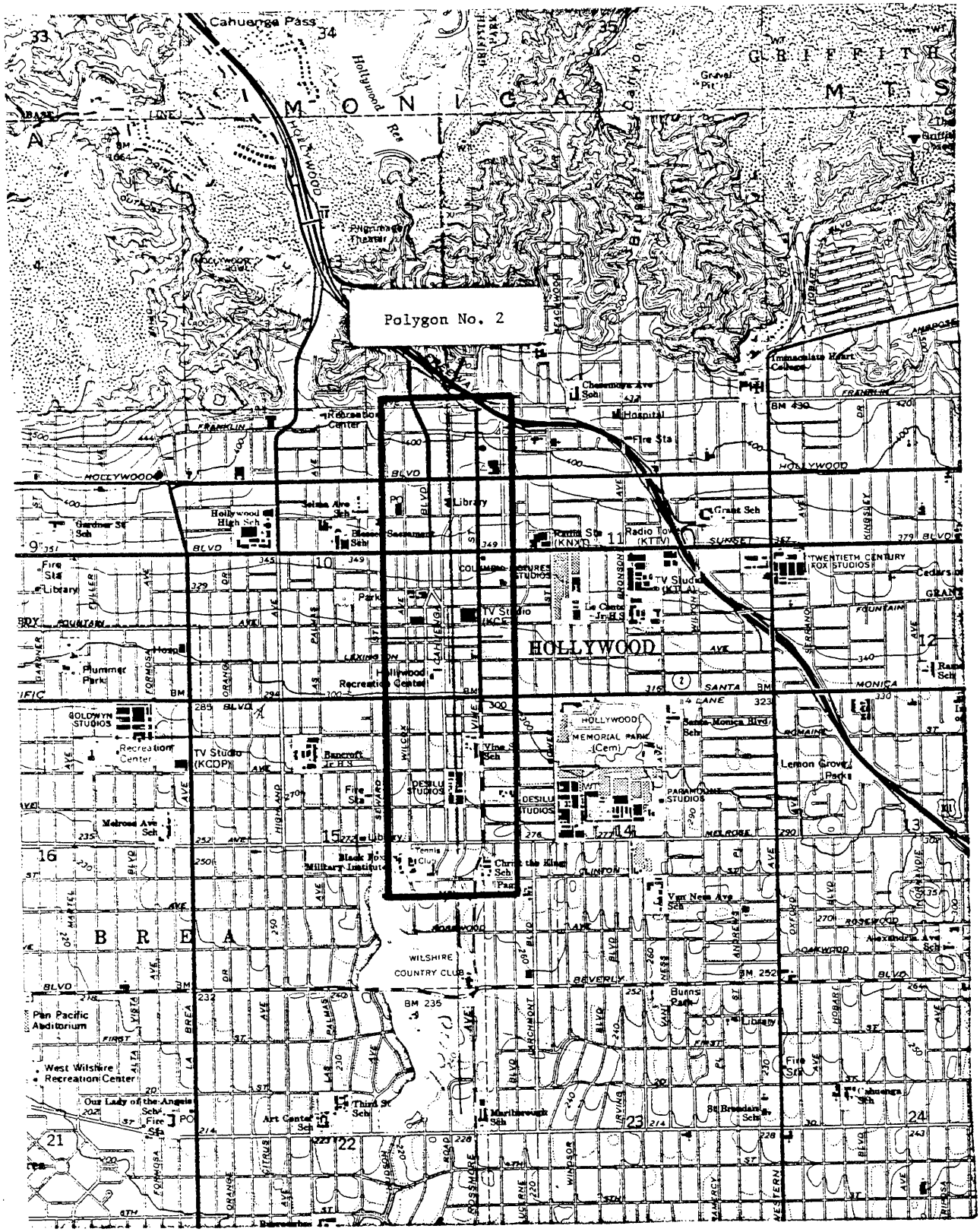


Figure A-2. Portion of 7.5 minute U.S. Geological Survey Map for Hollywood Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 2 for which aerial photography was taken and in which field survey was conducted.

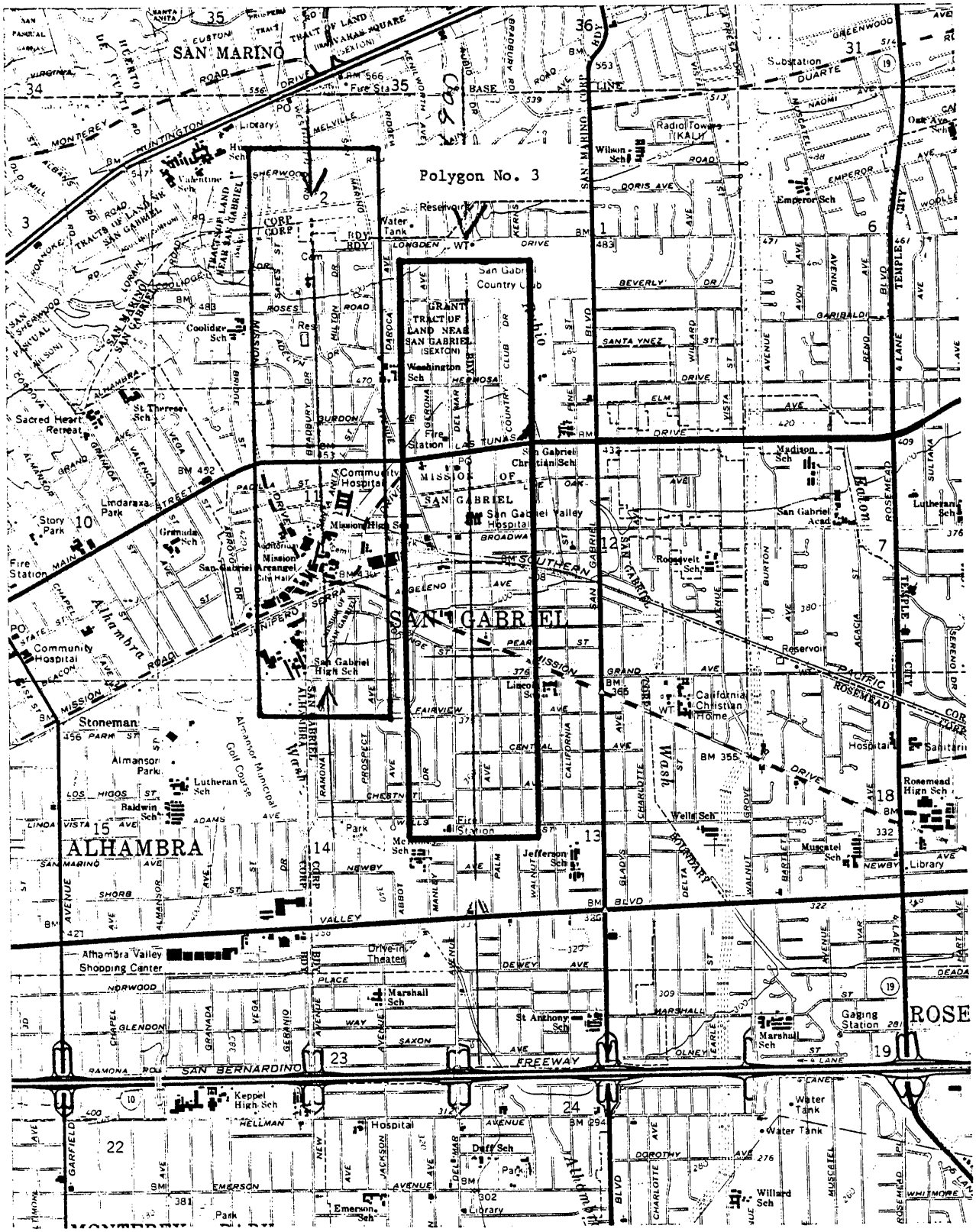


Figure A-3. Portion of 7.5 minute U.S. Geological Survey Map for El Monte Quadrangle. Rectangular area with the heavier border corresponds to randomly selected location in Polygon 3 for which aerial photography was taken and in which field survey was conducted.

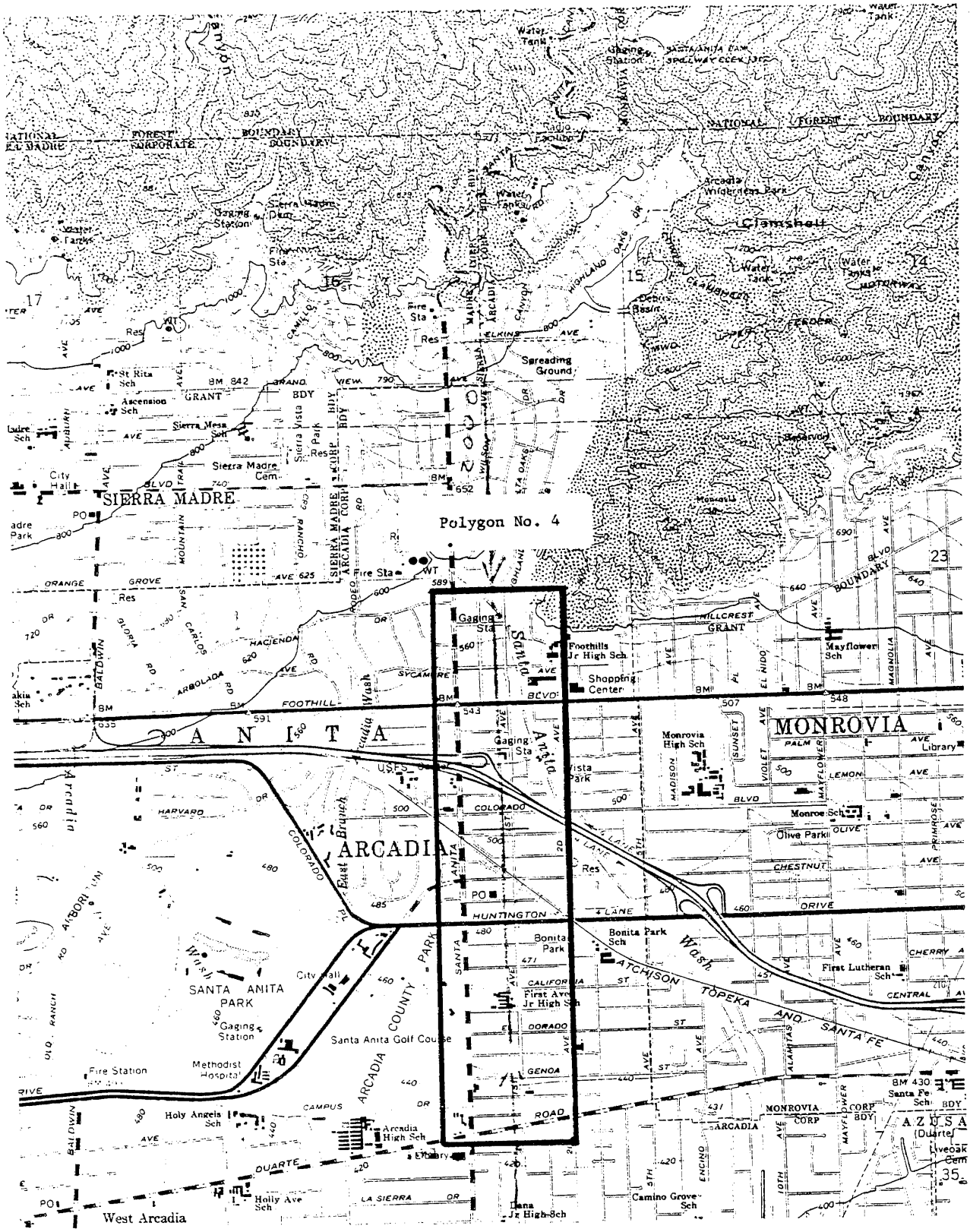


Figure A-4. Portion of 7.5 minute U.S. Geological Survey Map for Mt. Wilson Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 4 for which aerial photography was taken and in which field survey was conducted.

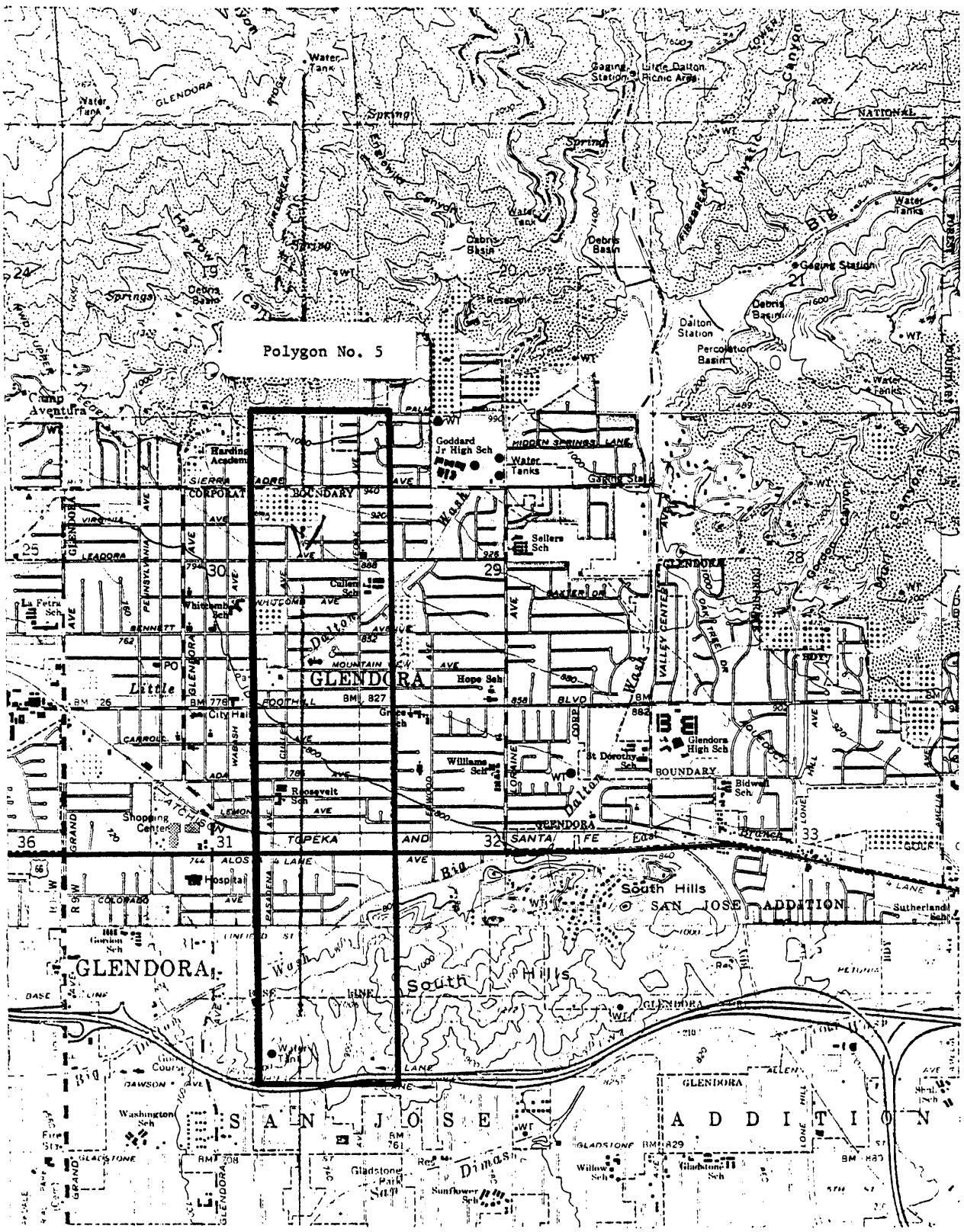


Figure A-5. Portion of 7.5 minute U.S. Geological Survey Map for Glendora Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 5 for which aerial photography was taken and in which field survey was conducted.

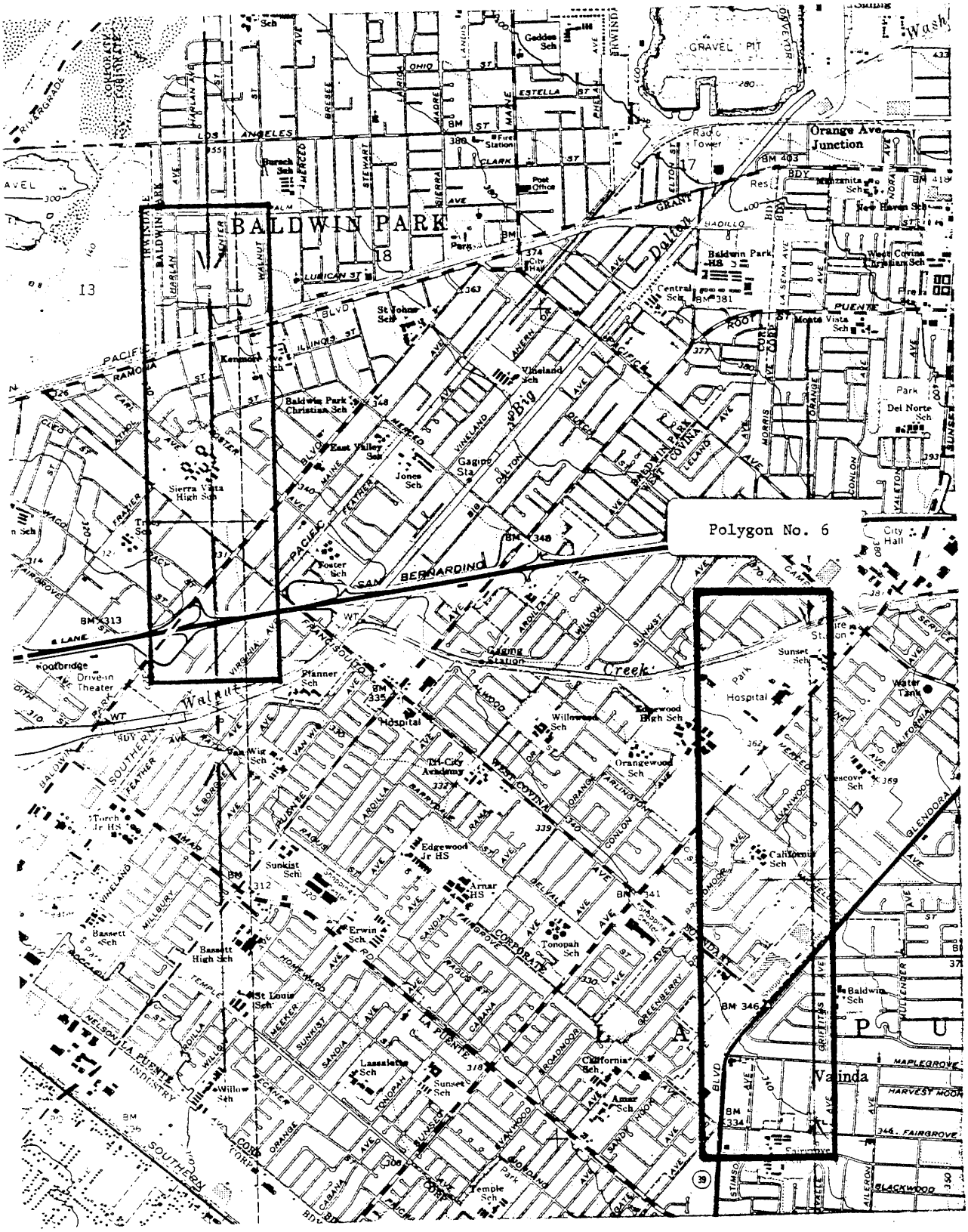


Figure A-6. Portion of 7.5 minute U.S. Geological Survey Map for Baldwin Park Quadrangle. Rectangular area with the heavier border corresponds to randomly selected location in Polygon 6 for which aerial photography was taken and in which field survey was conducted.

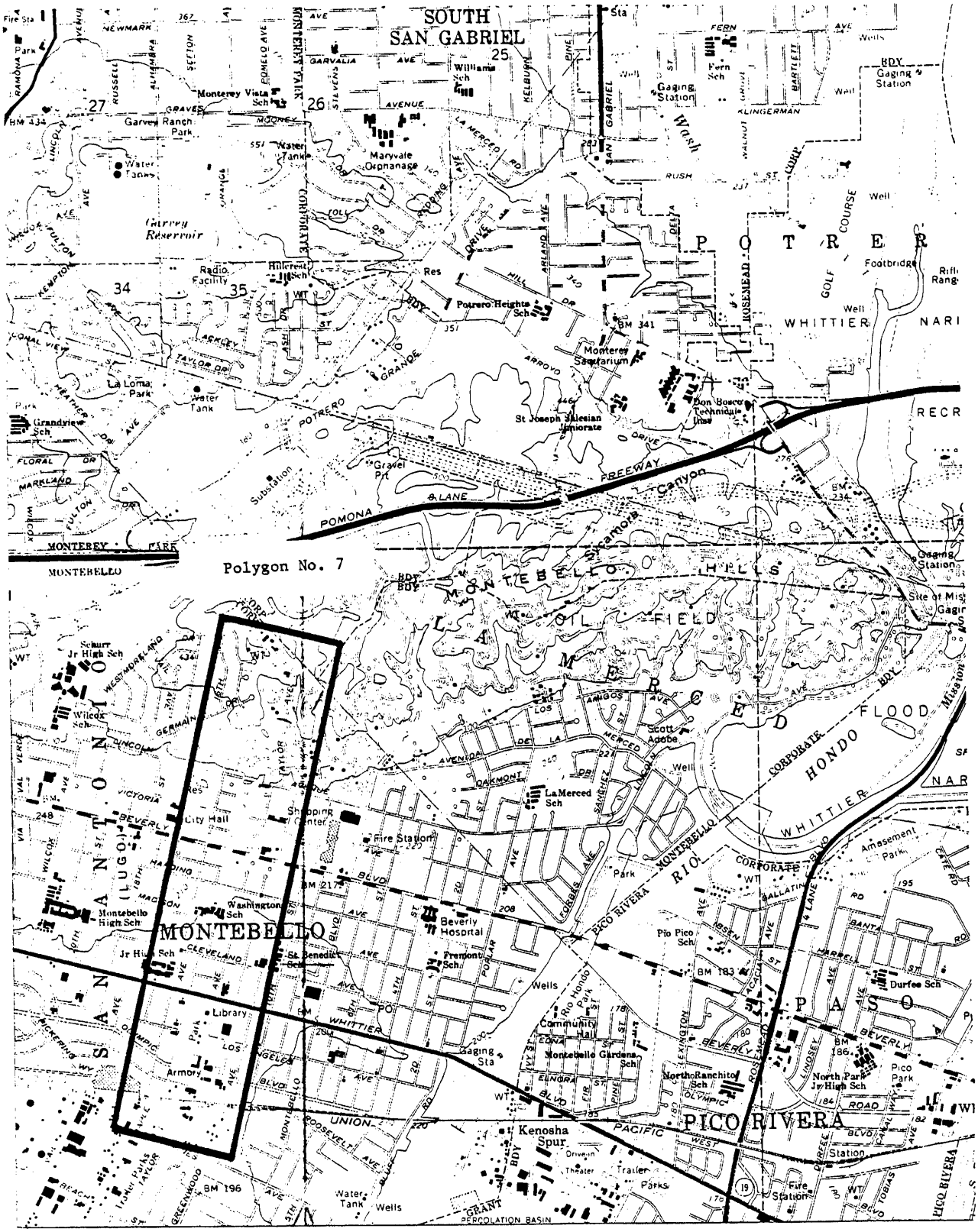


Figure A-7. Portion of 7.5 minute U.S. Geological Survey Map for Montebello Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 7 for which aerial photography was taken and in which field survey was conducted.

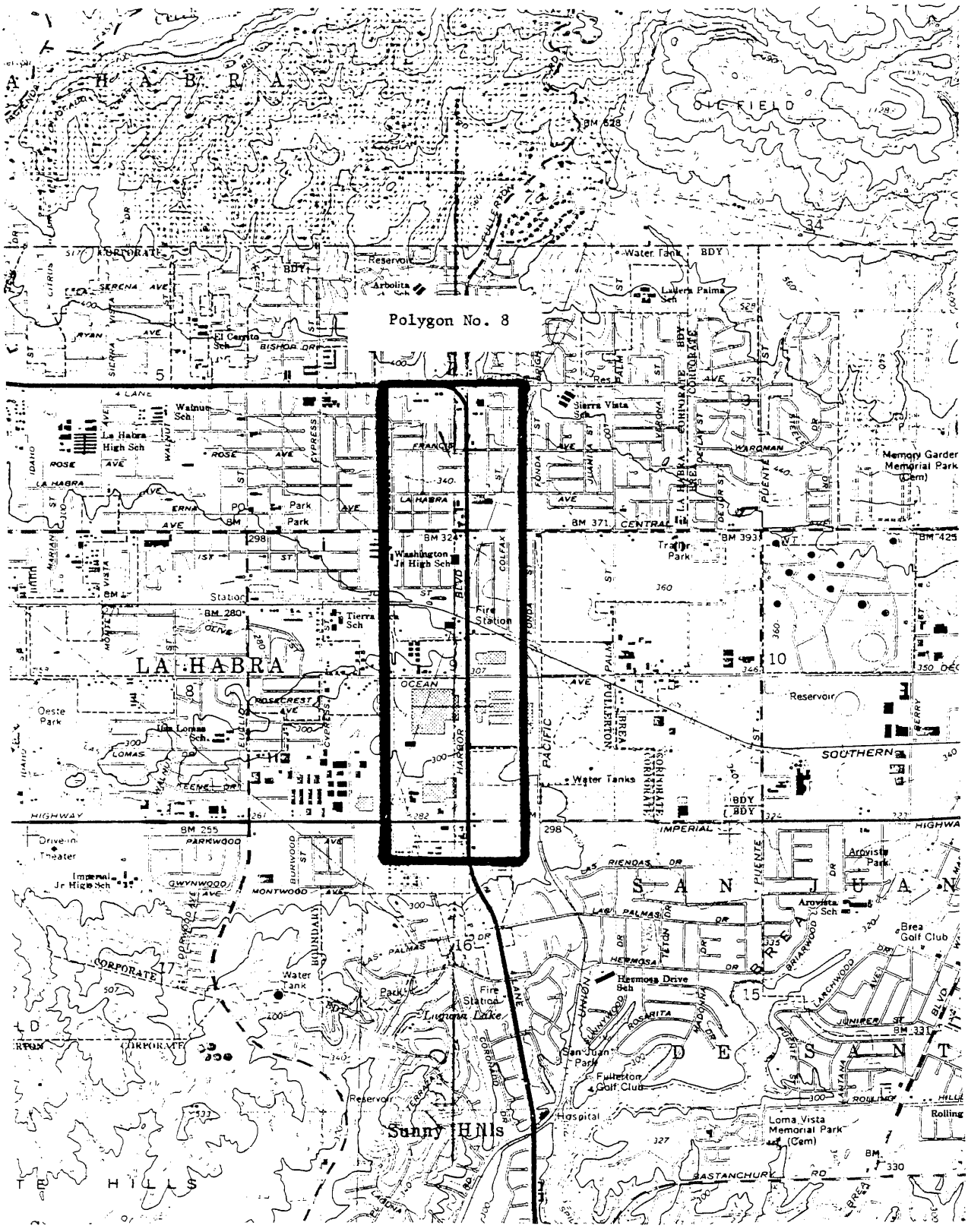


Figure A-8. Portion of 7.5 minute U.S. Geological Survey Map for La Habra Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 8 for which aerial photography was taken and in which field survey was conducted.

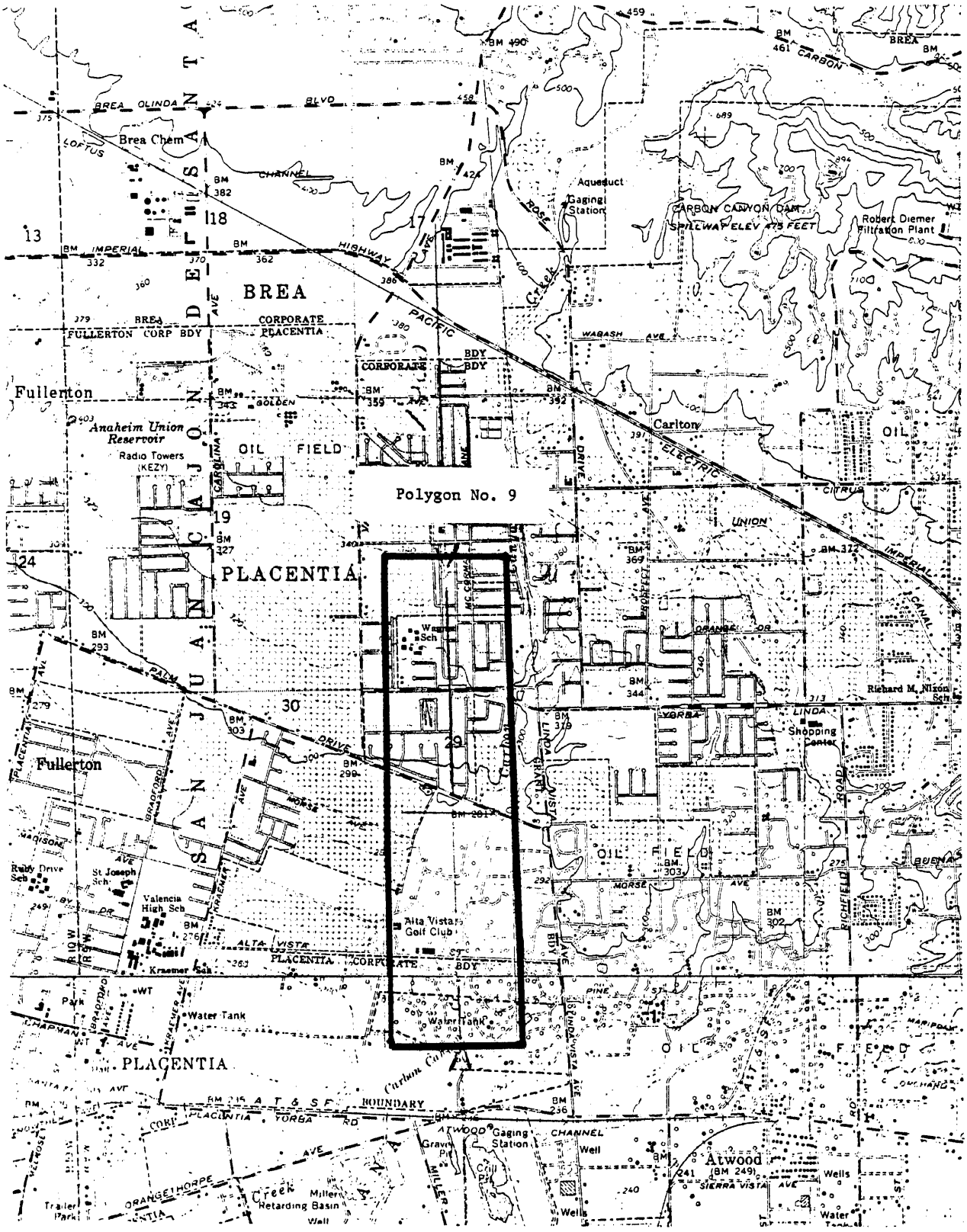


Figure A-9. Portion of 7.5 minute U.S. Geological Survey Map for Yorba Linda Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 9 for which aerial photography was taken and in which field survey was conducted.

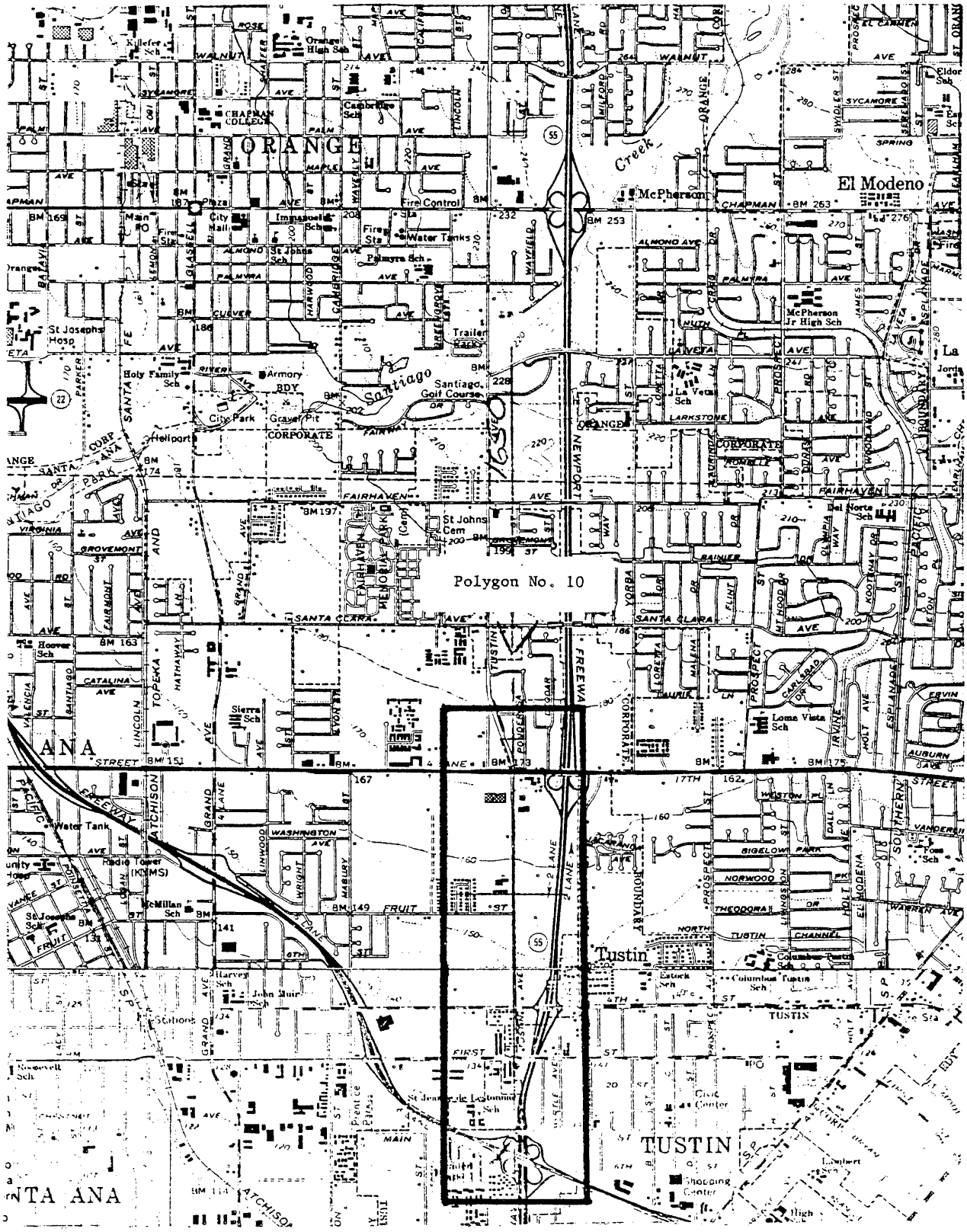


Figure A-10. Portion of 7.5 minute U.S. Geological Survey Map for Orange Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 10 for which aerial photography was taken and in which field survey was conducted.

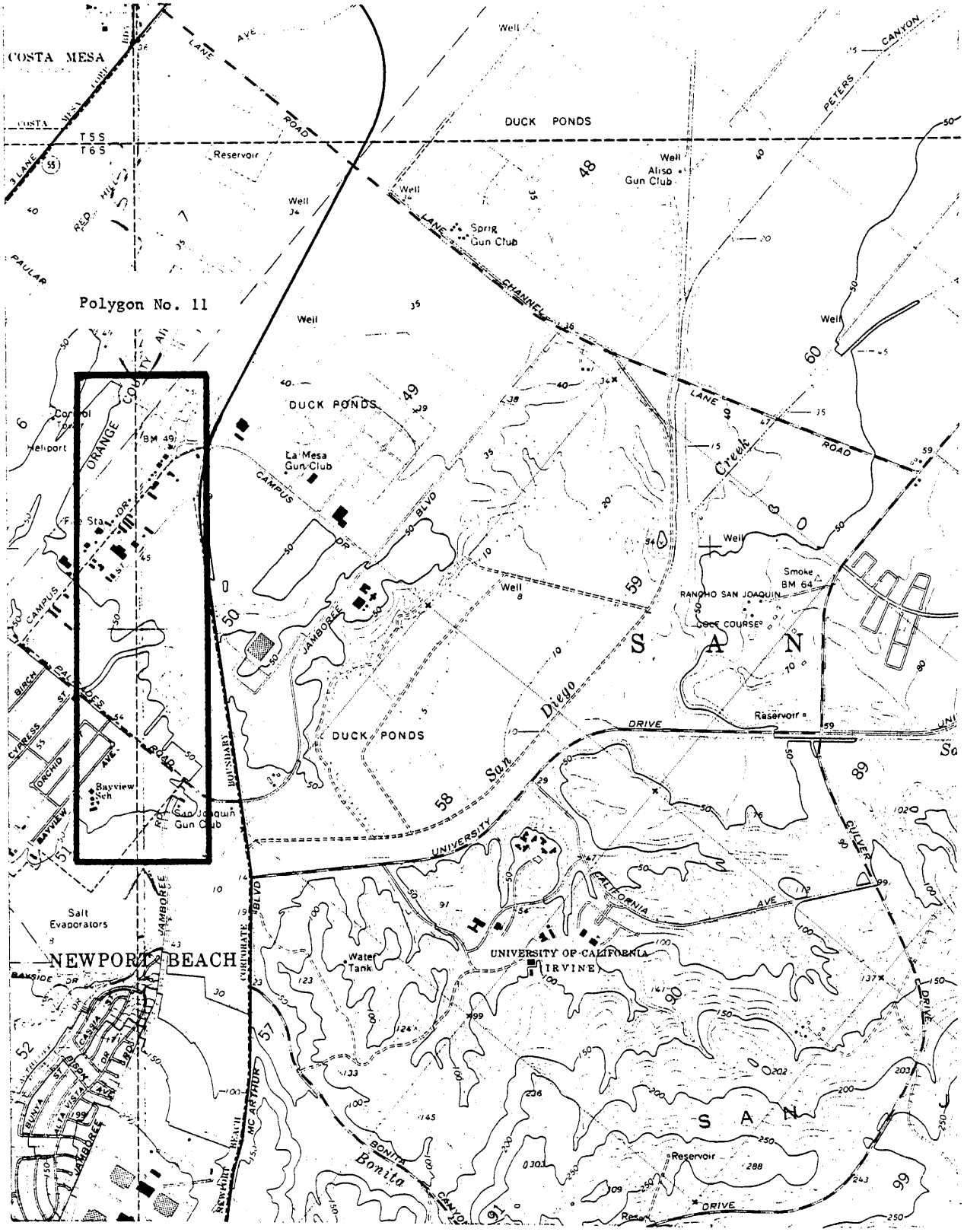


Figure A-11. Portion of 7.5 minute U.S. Geological Survey Map for Tustin Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 11 for which aerial photography was taken and in which field survey was conducted.

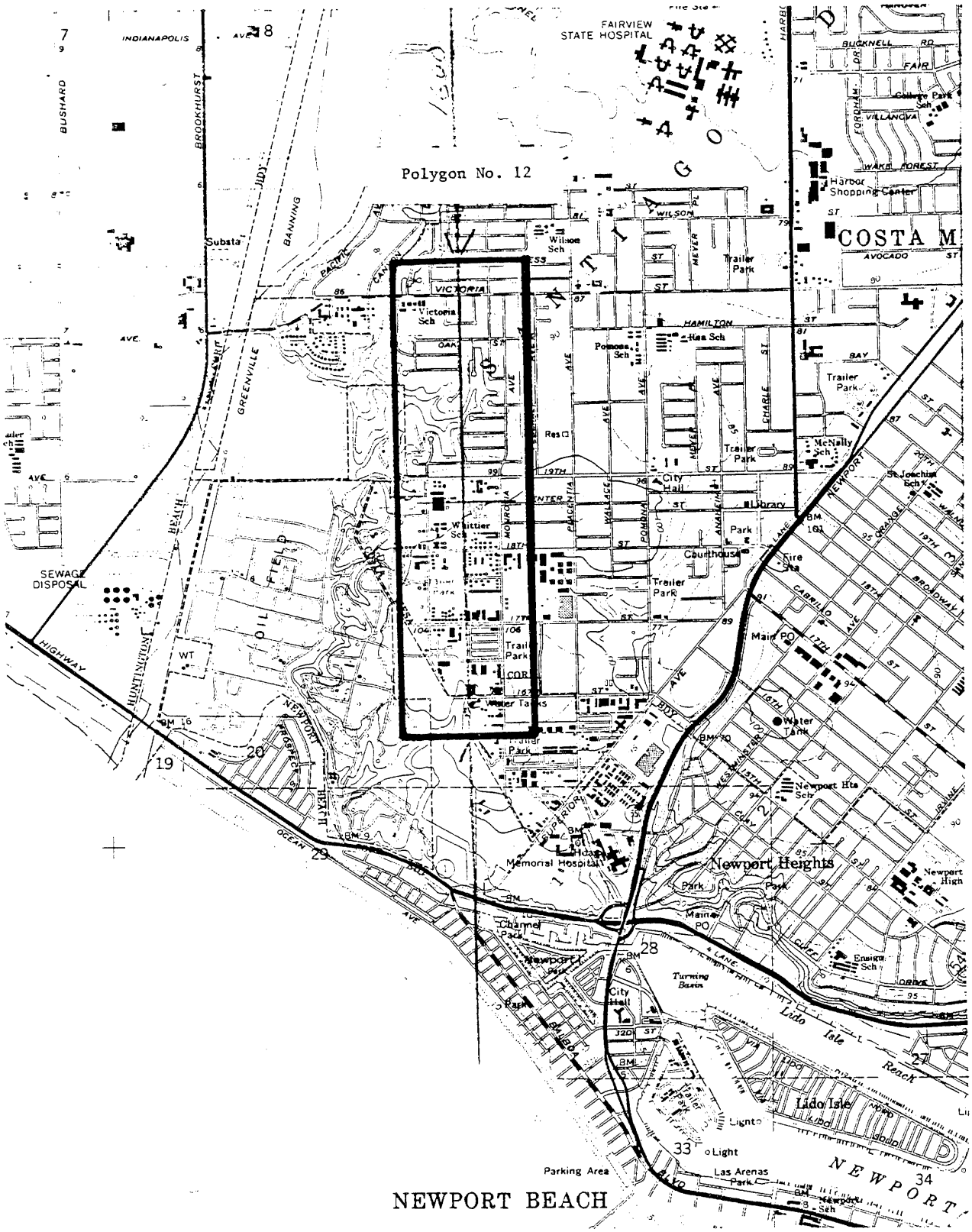


Figure A-12. Portion of 7.5 minute U.S. Geological Survey Map for Newport Beach Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 12 for which aerial photography was taken and in which field survey was conducted.

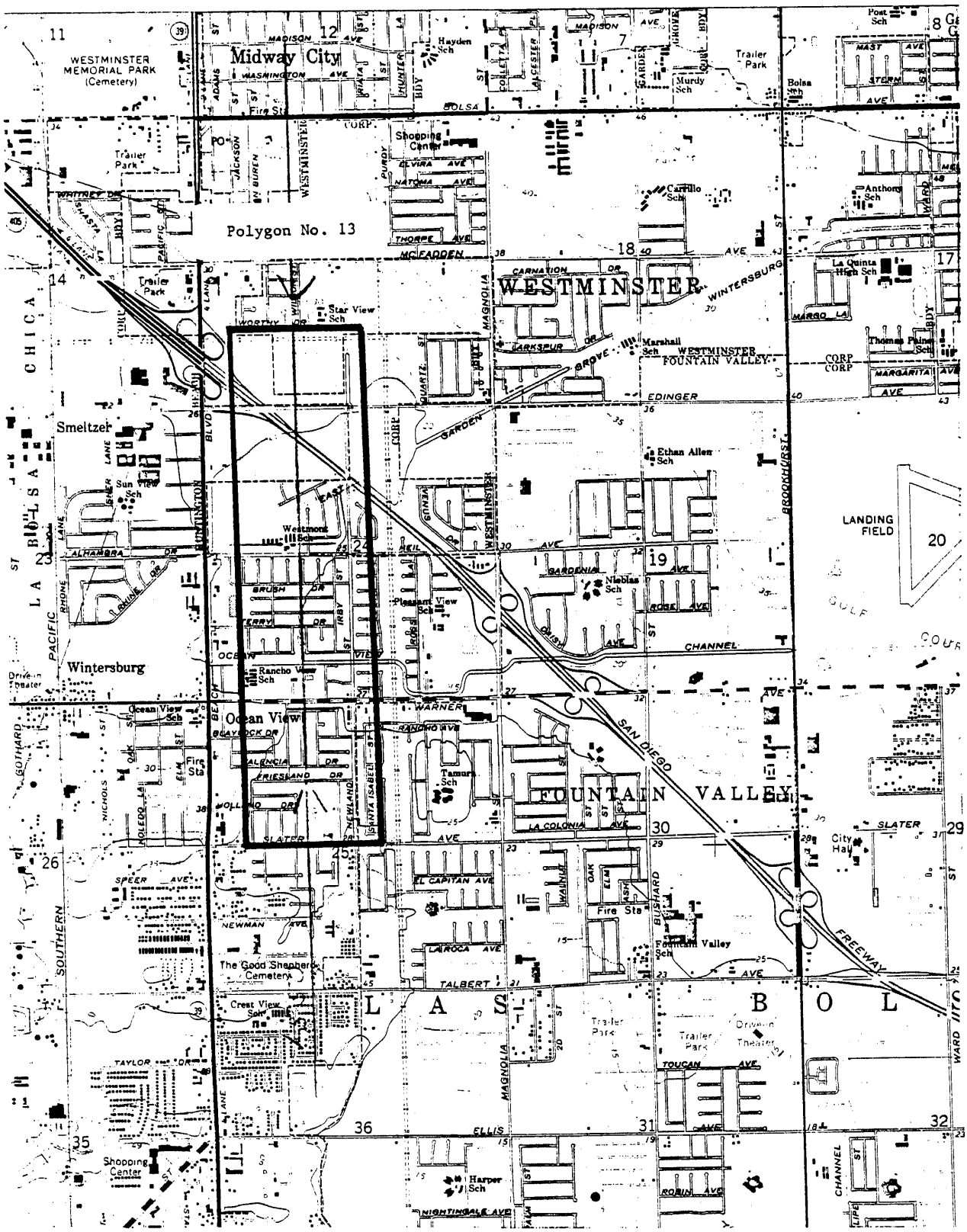


Figure A-13. Portion of 7.5 minute U.S. Geological Survey Map for Newport Beach Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 13 for which aerial photography was taken and in which field survey was conducted.

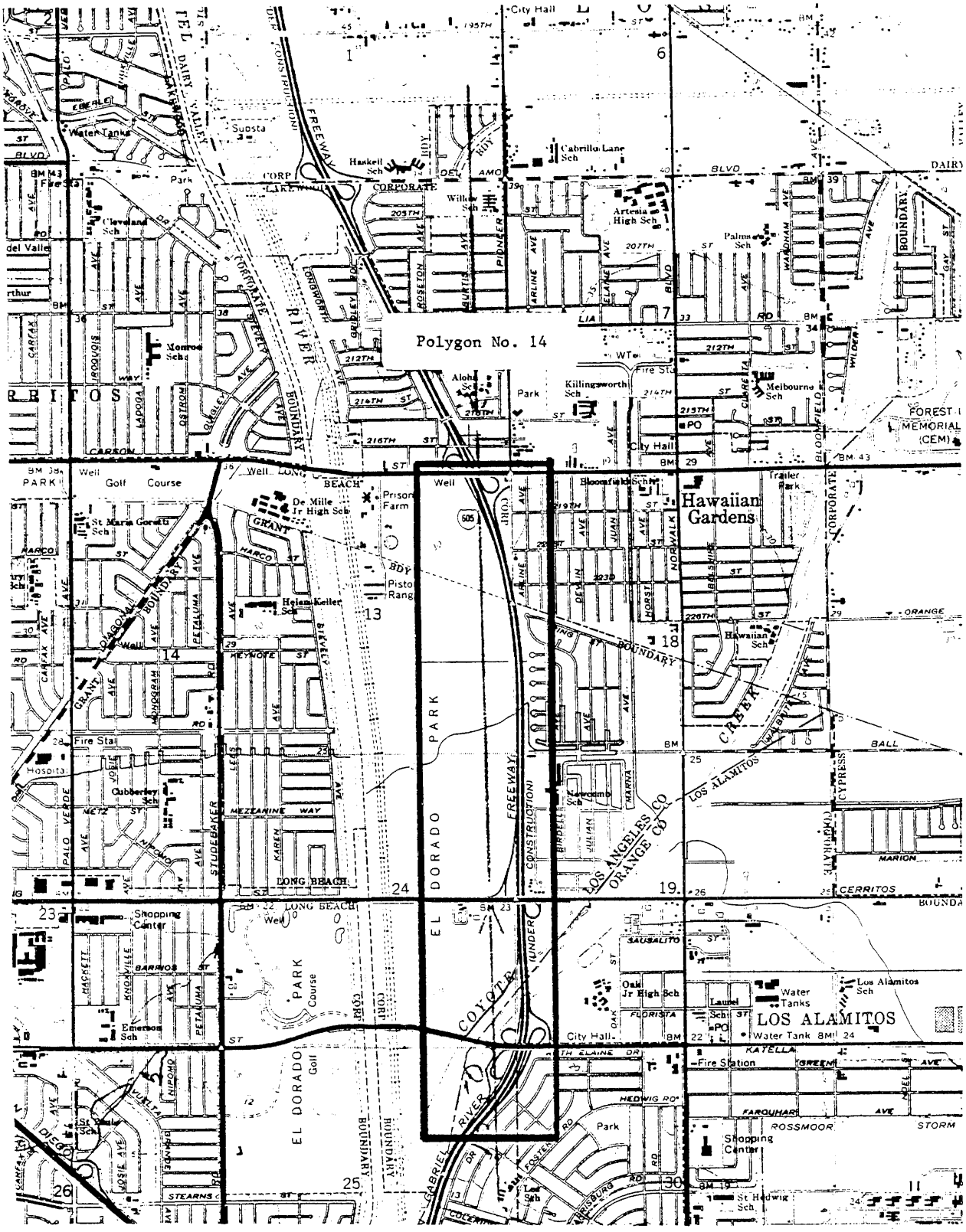


Figure A-14. Portion of 7.5 minute U.S. Geological Survey Map for Los Alamitos Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 14 for which aerial photography was taken and in which field survey was conducted.

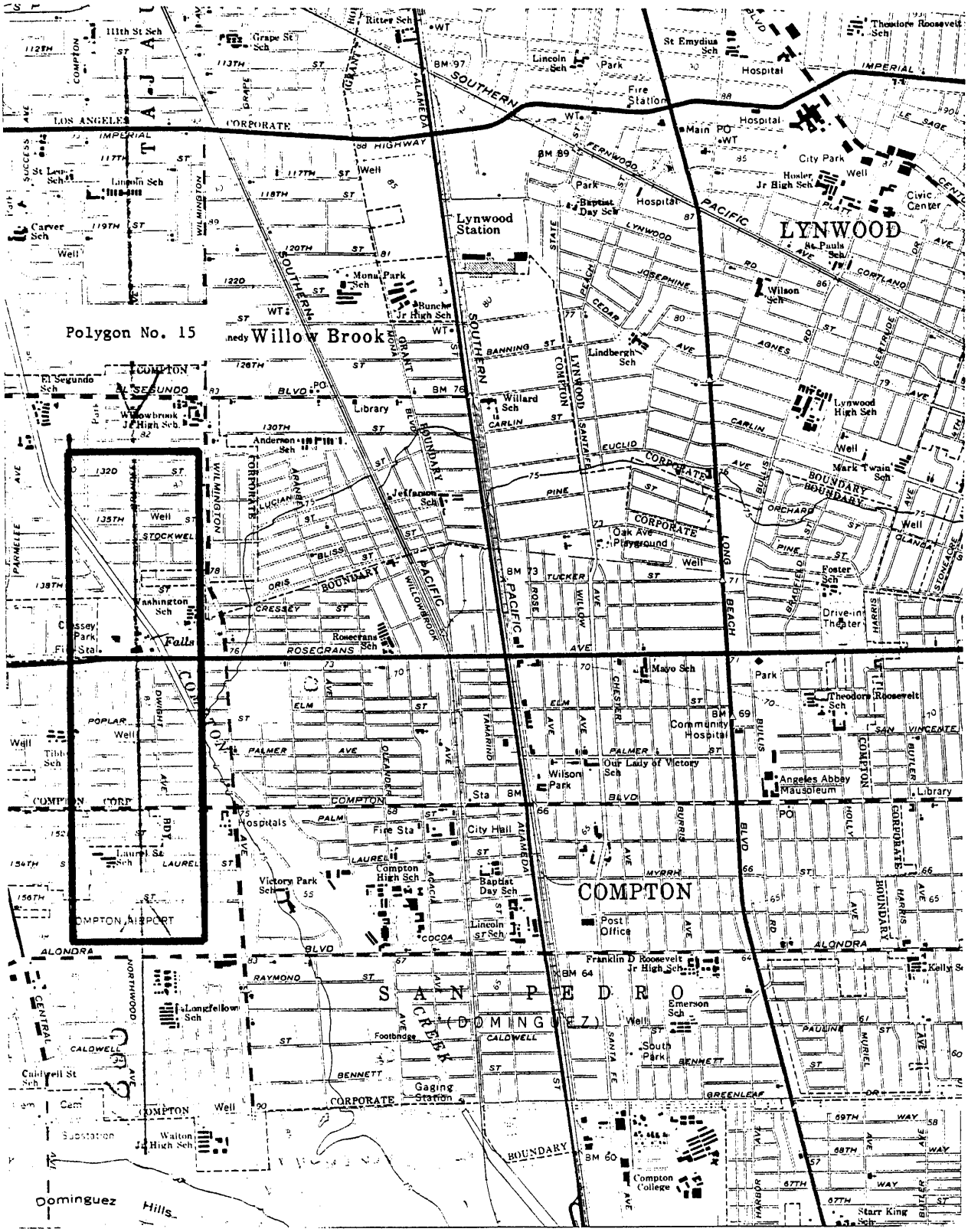


Figure A-15. Portion of 7.5 minute U.S. Geological Survey Map for South Gate Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 15 for which aerial photography was taken and in which field survey was conducted.

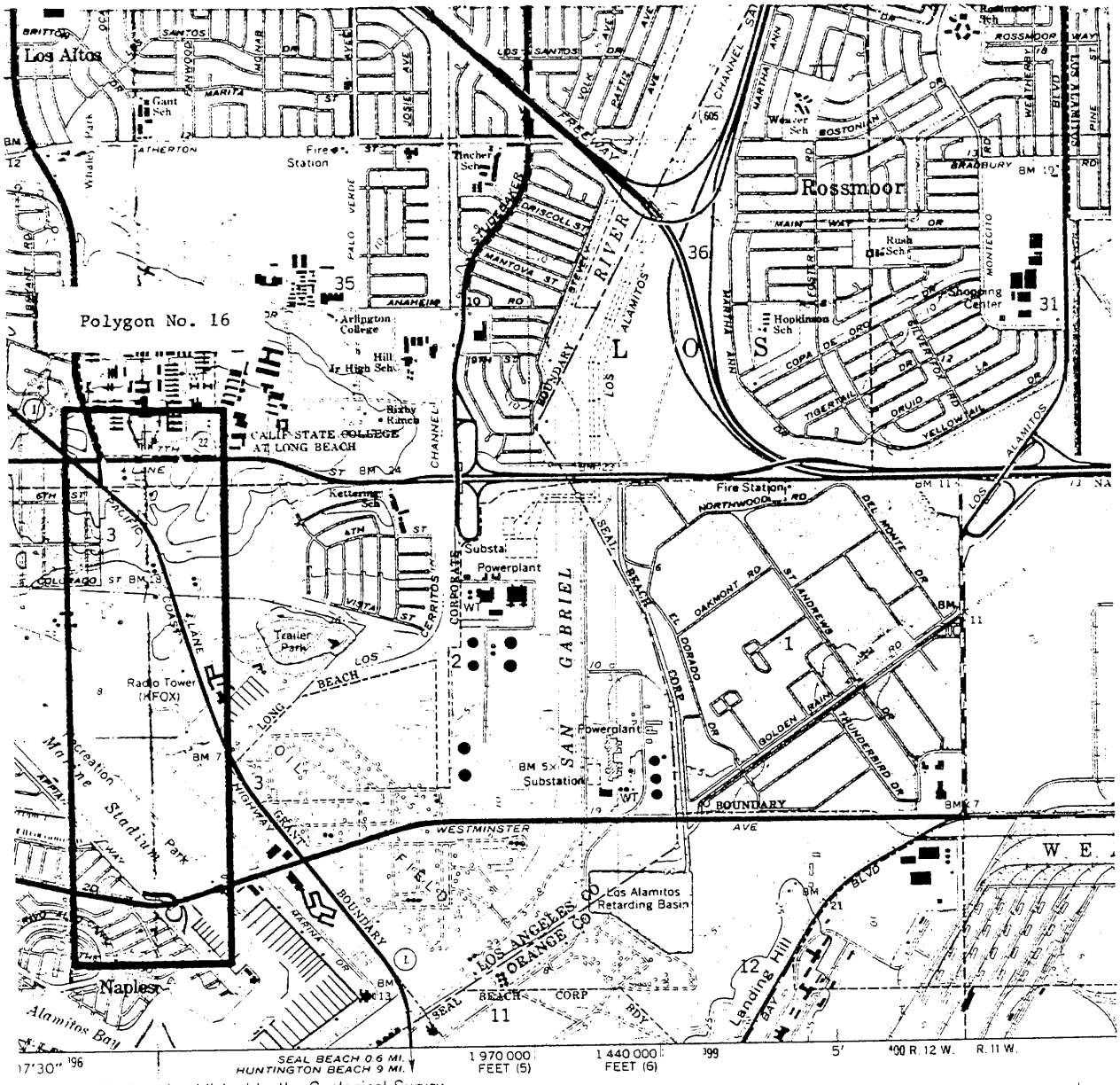


Figure A-16. Portion of 7.5 minute U.S. Geological Survey Map for Los Alamitos Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 16 for which aerial photography was taken and in which field survey was conducted.

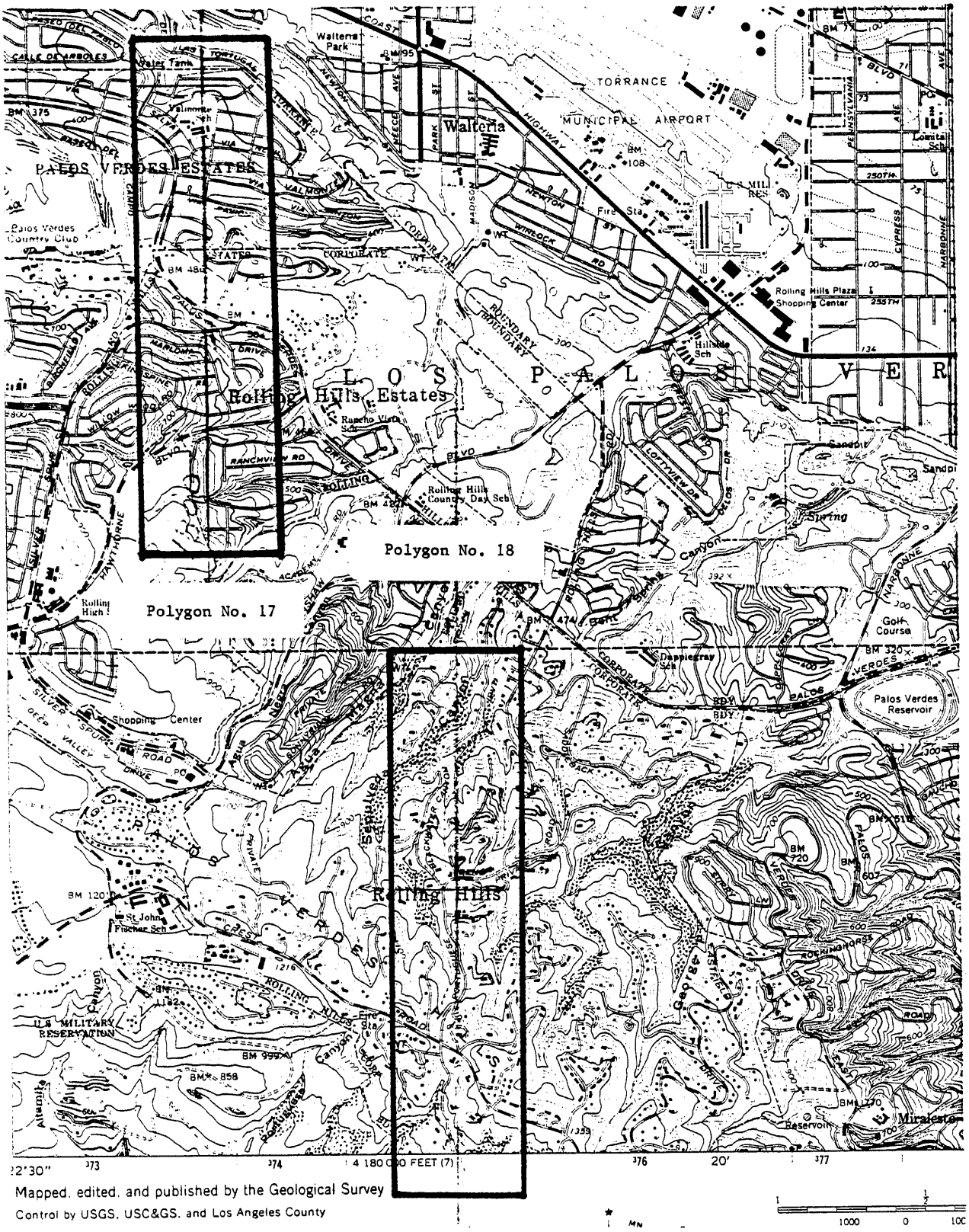


Figure A-17. Portion of 7.5 minute U.S. Geological Survey Map for Torrance Quadrangle. Rectangular areas correspond to randomly selected location in Polygons 17 and 18 for which aerial photography was taken and in which field survey was conducted.

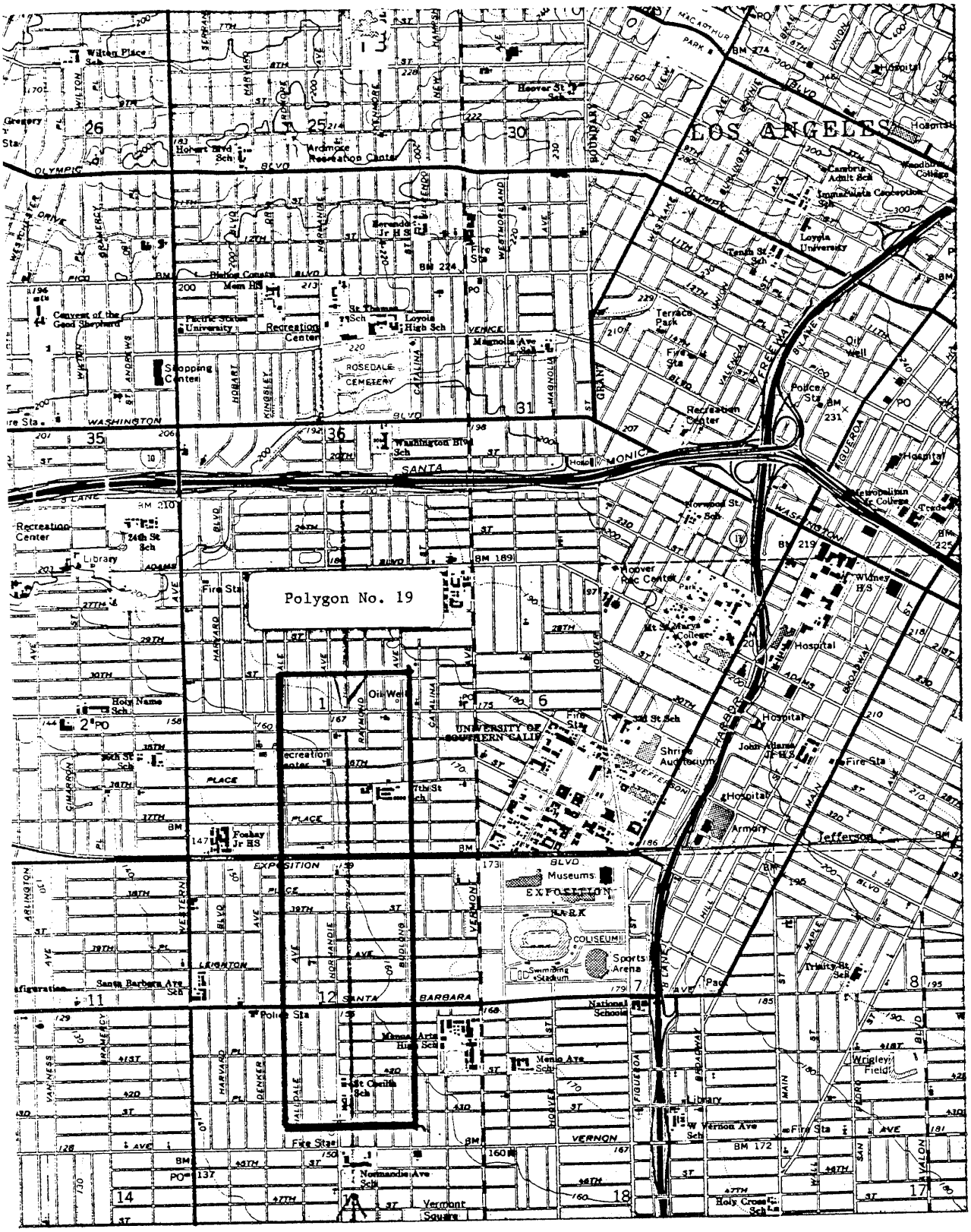


Figure A-18. Portion of 7.5 minute U.S. Geological Survey Map for Hollywood Quadrangle. Rectangular area corresponds to randomly selected location in Polygon 19 for which aerial photography was taken and in which field survey was conducted.

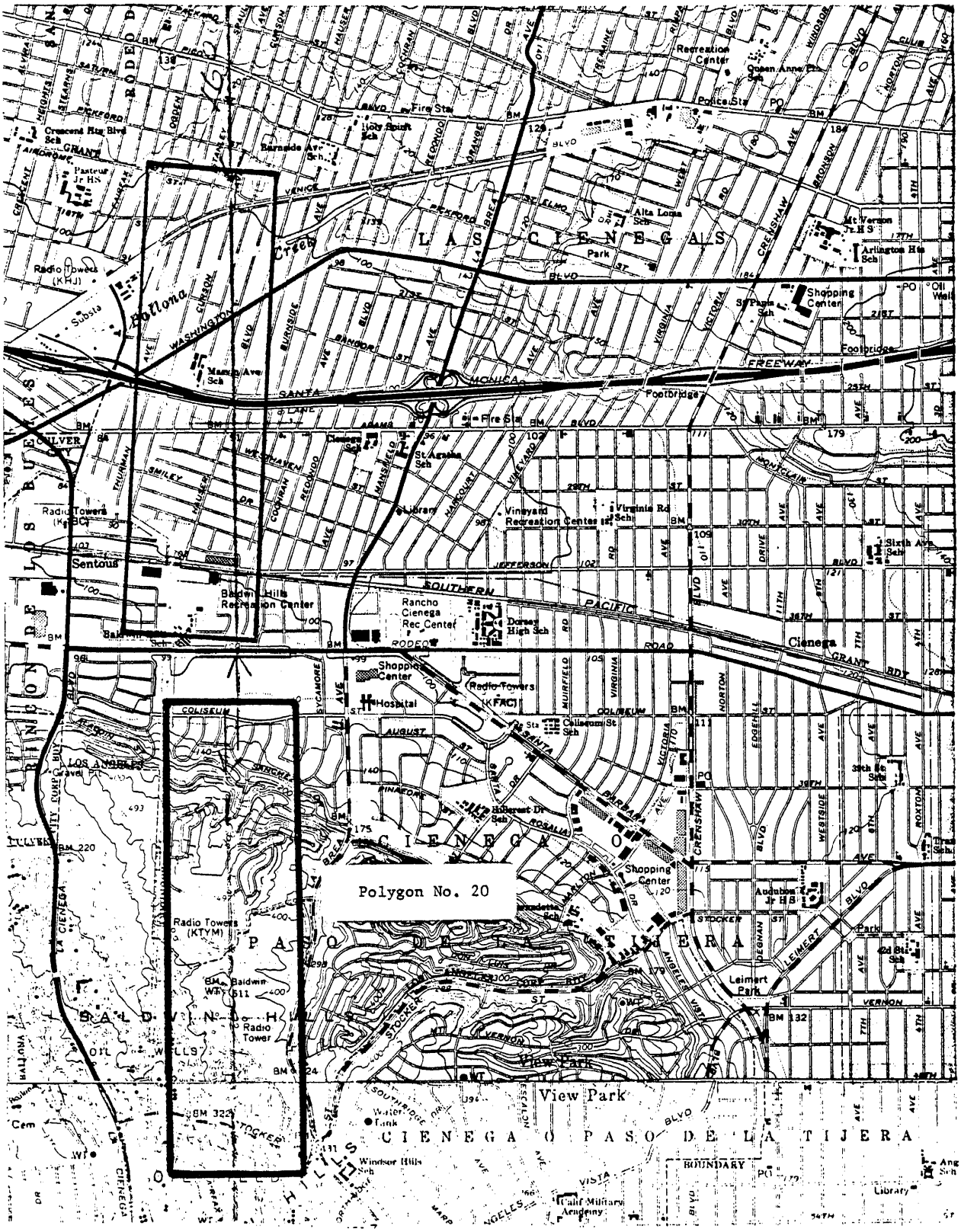


Figure A-19. Portion of 7.5 minute U.S. Geological Survey Map for Hollywood Quadrangle. Rectangular area with heavier border corresponds to randomly selected location in Polygon 20 for which aerial photography was taken and in which field survey was conducted.

APPENDIX B

Detailed Data Concerning Properties of Urban Vegetation Determined in the CSCAB Study Area

TABLE B-1. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 1 (BEVERLY HILLS)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
DEODAR CEDAR	1	113	181	921	167
ITALIAN CYPRESS	4	3	11	5141	58
MONTEREY PINE	1	1	1	388	a
TOTAL	6	117	193	NA	225
BROAD-LEAF TREES					
JACARANDA	10	503	1005	90	90
MAPLE	6	192	729	44	32
PODOCARPUS TREE	4	113	158	236	37
CALIFORNIA SYCAMORE	2	101	134	86	12
EVERGREEN PEAR	14	176	107	180	19
MAGNOLIA	1	20	33	345	11
CRAPE MYRTLE	1	13	4	951	4
BIRCH	2	6	b	--	--
TREE (unid.)	1	50	134	--	--
TOTAL	41	1174	2304	NA	205
PALMS					
CALIFORNIA FAN PALM	2	20	40c	519d	21
COCOS PALM	1	26	10c	--	--
TOTAL	3	46	50c	NA	21
SHRUBS					
GLOSSY PRIVET	27	611	1656	230	381
JUNIPER	22	384	405	3741	1514
HIBISCUS	7	129	154	400	62
BOTTLEBRUSH	20	240	146	472	69
TUTTLE NATAL PLUM	24	141	113	160	18
PAMPAS GRASS	1	20	65	--	--
TREE TOBACCO	12	38	50	--	--
ARALIA	15	38	48	--	--
OLEANDER	2	31	37	232	9
PODOCARPUS SHRUB	10	19	27	236	6
ROSE	44	34	22	357	8
STAR JASMINE	2	19	19	--	--
AZALEA	32	25	18	--	--
HOLLY	20	26	17	--	--
BIRD OF PARADISE	12	13	11	--	--
JAPAN. PITTOSPORUM	3	9	8	2661	22
SOFT-TIPPED YUCCA	2	6	8	--	--
SHINY XYLOSMA	1	6	7	472	3
POINSETTIA	11	11	6	--	--
CAMELLIA	2	6	6	1571	9
GARDENIA	1	3	4	--	--
PHILODENDRON	2	5	3	--	--
AGAVE	4	3	2	--	--
AUSTRALIAN TREE FERN	1	1	b	--	--
SHRUB (unid.)	3	2	2	--	--
TOTAL	280	1820	2834	NA	2101

TABLE B-1 (continued)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
LAWNS & GRASSES					
GRASS (unid.)	12	1955	NA	NA	NA
TOTAL	12	1955	NA	NA	NA
GROUND COVER					
IVY	14	783	NA	NA	NA
MIXED FLOWERS	1	22	NA	NA	NA
PERIWINKLE	1	19	NA	NA	NA
LILY	53	16	NA	NA	NA
AFRICAN DAISY	1	14	NA	NA	NA
JADE PLANT	3	2	NA	NA	NA
GROUND COVER (unid.)	1	8	NA	NA	NA
TOTAL	74	864	NA	NA	NA

a < 0.5 kg
b < 0.5 cu m
c Number of fronds
d g/frond

-- Not measured
NA Not applicable

TABLE B-2. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 2 (HOLLYWOOD)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
ITALIAN CYPRESS	29	37	146	5141	748
TOTAL	29	37	146	NA	748
BROAD-LEAF TREES					
BLACK WALNUT	2	77	359	--	--
FICUS TREE	1	39	180	--	--
AVOCADO	1	28	113	59	7
CAMPHOR	2	25	67	75	5
BANANA	2	4	4	--	--
CITRUS	1	3	3	282	1
BLACK LOCUST	2	2	2	19	a
TOTAL	11	178	728	NA	13
PALMS					
COCOS PALM	3	77	36b	--	--
TOTAL	3	77	36b	NA	a
SHRUBS					
HIBISCUS	4	66	211	400	84
LANTANA	1	12	84	--	--
JAPAN. PITTOSPORUM	7	34	17	2661	45
PYRACANTHA	2	8	12	291	3
POINSETTIA	3	8	10	--	--
CHINESE JUNIPER	2	9	9	3741	32
PHILODENDRON	2	6	8	--	--
BAMBOO	3	4	3	--	--
BOTTLEBRUSH	3	4	3	472	1
OLEANDER	1	3	3	232	1
ABELIA	1	3	3	1446	4
SOFT-TIPPED YUCCA	1	3	3	--	--
ASPARAGUS FERN	1	2	2	--	--
TUTTLE NATAL PLUM	1	2	2	160	a
BIRD OF PARADISE	1	1	1	--	--
SHRUB (unid.)	2	13	37	--	--
TOTAL	35	178	408	NA	170
LAWNS & GRASSES					
GRASS (unid.)	6	597	NA	NA	NA
TOTAL	6	597	NA	NA	NA

TABLE B-2 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
GROUND COVER					
GLADIOLUS	1	9	NA	NA	NA
MIXED FLOWERS	1	6	NA	NA	NA
TOTAL	2	15	NA	NA	NA

a < 0.05 kg
b Number of fronds

-- Not measured
NA Not applicable

TABLE B-3. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 3 (SAN GABRIEL)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
MONTEREY PINE	8	160	1372	388	532
ITALIAN CYPRESS	10	68	76	5141	388
ARAUCARIA	1	1	1	--	--
SAGO PALM	2	1	1	--	--
TOTAL	21	230	1450	NA	920
BROAD-LEAF TREES					
AMERICAN ELM	3	252	3453	28	95
CHINESE ELM	5	180	1050	25	27
CAROB	6	267	841	--	--
JACARANDA	3	118	566	90	51
MAPLE	4	58	413	44	18
CRAPE MYRTLE	17	146	396	951	377
ASH	2	49	326	167	54
ALDER	6	75	274	--	--
CARROTWOOD	2	37	104	--	--
CITRUS	9	28	69	282	19
APRICOT	1	22	54	--	--
CORAL TREE	2	17	40	--	--
FICUS TREE	3	14	30	--	--
MAGNOLIA	4	12	24	345	8
CAMPHOR	1	9	20	75	1
AVOCADO	1	4	11	59	1
NAGAMI KUMQUAT	1	4	7	--	--
BANANA	10	9	6	--	--
PEACH	1	2	2	--	--
ACACIA TREE	1	1	1	154	a
TOTAL	82	1304	7687	NA	651
PALMS					
CALIFORNIA FAN PALM	8	81	222b	519c	115
COCOS PALM	1	26	22b	--	--
TOTAL	9	107	244b	NA	115
SHRUBS					
CAMELLIA	50	102	128	1571	201
JUNIPER	40	105	75	3741	281
HOLLY	18	44	68	--	--
ROSE	42	58	63	357	23
ARALIA	22	46	56	--	--
BOTTLEBRUSH	9	28	41	472	19
HIBISCUS	8	26	40	400	16
JAPAN. PITTOSPORUM	28	48	36	2661	96
SHINY XYLOSMA	8	30	29	472	13
AZALEA	76	45	28	--	--
PODOCARPUS SHRUB	11	23	19	236	5
SOFT-TIPPED YUCCA	21	19	14	--	--
BIRD OF PARADISE	17	16	13	--	--
HEAVENLY BAMBOO	3	9	13	547	7
INDIA-HAWTHORN	36	19	12	553	7

TABLE B-3 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
CAPE-HONEYSUCKLE	3	12	10	634	6
PYRACANTHA	2	6	8	291	2
GLOSSY PRIVET	1	9	6	230	1
COTONEASTER	1	5	4	263	1
TUTTLE NATAL PLUM	4	3	3	160	a
PHILODENDRON	3	2	2	--	--
FUCHSIA	1	1	1	--	--
HEBE	1	1	1	--	--
AGAVE	2	d	e	--	--
FERN (unid.)	1	3	e	--	--
SHRUB (unid.)	1	1	3	--	--
TOTAL	409	661	673	NA	678
LAWNS & GRASSES					
GRASS (unid.)	45	3783	NA	NA	NA
DICHONDRA	4	343	NA	NA	NA
TOTAL	49	4126	NA	NA	NA
GROUND COVER					
IVY	12	199	NA	NA	NA
BACHELOR BUTTON	1	37	NA	NA	NA
PERIWINKLE	8	15	NA	NA	NA
JADE PLANT	10	8	NA	NA	NA
CHRYSANTHEMUM	1	6	NA	NA	NA
BEGONIA	3	4	NA	NA	NA
MARIGOLD	2	3	NA	NA	NA
MINT	1	2	NA	NA	NA
SNAPDRAGON	1	1	NA	NA	NA
FERN (unid.)	1	4	NA	NA	NA
ASTER (unid.)	1	2	NA	NA	NA
SUCCULENT (unid.)	1	1	NA	NA	NA
TOTAL	42	282	NA	NA	NA

a < 0.5 kg
b Number of fronds
c g/frond
d < 0.5 sq m
e < 0.5 cu m

-- Not measured
NA Not applicable

TABLE B-4. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 4 (ARCADIA)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
DEODAR CEDAR	3	204	415	921	382
MONTEREY PINE	16	117	376	388	146
CANARY ISLAND PINE	7	43	165	473	78
REDWOOD	2	40	116	--	--
ITALIAN CYPRESS	51	151	96	5141	493
ARAUCARIA	1	46	84	--	--
SAGO PALM	3	4	3	--	--
TOTAL	83	605	1255	NA	1099
BROAD-LEAF TREES					
CALIFORNIA LIVE OAK	29	1132	6720	310	2081
CHINESE ELM	43	1070	3849	25	97
MAPLE	22	483	3325	44	145
CALIFORNIA SYCAMORE	9	413	2899	86	249
ASH	43	662	2303	167	385
AMERICAN ELM	4	252	1867	28	52
CHERRY LAUREL	18	304	1073	--	--
AVOCADO	9	222	973	59	57
CRAPE MYRTLE	52	242	741	951	705
OLIVE	9	150	544	497	270
MAGNOLIA	13	157	522	345	180
PRUNUS	9	114	348	--	--
CITRUS	26	88	166	282	47
VICTORIAN BOX	11	152	158	2661	420
WALNUT	1	28	151	--	--
RIBBON GUM	19	50	138	341	47
SILK OAK	2	15	134	--	--
PERUVIAN PEPPER	3	56	132	149	20
BANANA	9	62	123	--	--
APRICOT	6	44	120	--	--
CORK OAK	1	28	113	--	--
MAIDENHAIR	8	40	93	--	--
CAMPHOR	1	24	87	75	7
BLACK LOCUST	10	28	73	19	1
CAROB	1	29	59	--	--
FIG	8	30	52	--	--
ALDER	1	11	26	--	--
EVERGREEN PEAR	1	17	24	180	4
PEACH	2	8	15	--	--
BIRCH	7	13	14	--	--
NAGAMI KUMQUAT	1	7	14	--	--
ACACIA TREE	1	7	14	154	2
CORAL TREE	1	4	5	--	--
PURPLELEAF PLUM	2	4	4	--	--
JACARANDA	1	3	3	90	a
BRAZILIAN PEPPER	1	3	3	70	a
TREE (unid.)	8	389	4509	--	--
TOTAL	392	6341	31394	NA	4769
PALMS					
CANARY ISLAND PALM	8	204	844b	554c	467
CALIFORNIA FAN PALM	17	173	418b	519c	217
COCOS PALM	2	51	12b	--	--
TOTAL	27	428	1274b	NA	684

TABLE B-4 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS					
SYDNEY GOLDEN WATTLE	2	1613	7386	154	1136
COTONEASTER	1	272	828	263	218
OLEANDER	23	356	786	232	182
HIBISCUS	53	211	542	400	217
BOTTLEBRUSH	46	171	250	472	118
CAMELLIA	106	200	228	1571	358
JUNIPER	88	196	187	3741	700
INDIA-HAWTHORN	49	76	101	553	56
JAPAN. PITTOSPORUM	79	108	93	2661	247
SOFT-TIPPED YUCCA	44	77	85	--	--
SHINY XYLOSMA	24	68	76	472	36
TUTTLE NATAL PLUM	13	88	62	160	10
PODOCARPUS SHRUB	26	51	56	236	13
ROSE	104	56	48	357	17
PYRACANTHA	8	25	47	291	14
HEBE	34	40	33	--	--
HEAVENLY BAMBOO	37	37	33	547	18
CHINESE JUNIPER	12	35	31	3741	116
AZALEA	38	28	30	--	--
ARALIA	36	34	29	--	--
BIRD OF PARADISE	44	29	21	--	--
HOLLY	22	20	20	--	--
BOUGAINVILLEA	4	11	17	--	--
PAMPAS GRASS	2	10	17	--	--
CEANOTHUS	3	30	15	281	4
LANTANA	5	13	12	--	--
PHILODENDRON	7	10	12	--	--
COMMON MYRTLE	2	7	11	50	1
TOMATO	4	9	10	--	--
POINSETTIA	5	8	8	--	--
AGAVE	6	6	6	--	--
ABELIA	3	7	5	1446	7
CAPE-HONEYSUCKLE	2	6	5	634	3
HALL'S HONEYSUCKLE	2	3	3	392	1
GARDENIA	8	2	1	--	--
ABELIA	1	2	1	1446	2
ASPARAGUS FERN	1	1	1	--	--
LEADWORT	1	1	1	646	a
AUSTRALIAN TREE FERN	1	1	1	--	--
MULE FAT	1	27	d	--	--
ALOE	1	e	d	--	--
SHRUB (unid.)	38	90	116	--	--
TOTAL	986	4035	11214	NA	3474
LAWNS & GRASSES					
GRASS (unid.)	71	8687	NA	NA	NA
DICHONDRA	3	257	NA	NA	NA
TOTAL	74	8944	NA	NA	NA

TABLE B-4 (continued) - 3

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
GROUND COVER					
IVY	37	4985	NA	NA	NA
ICE PLANT	3	124	NA	NA	NA
MIXED FLOWERS	25	99	NA	NA	NA
AFRICAN DAISY	3	42	NA	NA	NA
BELLFLOWER	1	37	NA	NA	NA
IRIS	3	27	NA	NA	NA
JADE PLANT	13	24	NA	NA	NA
WANDERING JEW	5	21	NA	NA	NA
GERANIUM	10	17	NA	NA	NA
MINT	4	12	NA	NA	NA
MARIGOLD	2	10	NA	NA	NA
BEGONIA	3	3	NA	NA	NA
PETUNIA	1	3	NA	NA	NA
PERIWINKLE	1	2	NA	NA	NA
CHRYSANTHEMUM	1	2	NA	NA	NA
PORTULACA	1	1	NA	NA	NA
ASTER (unid.)	4	35	NA	NA	NA
FERN (unid.)	4	8	NA	NA	NA
SUCCULENT (unid.)	4	10	NA	NA	NA
GROUND COVER (unid.)	4	61	NA	NA	NA
TOTAL	129	5523	NA	NA	NA

a < 0.5 kg
b Number of fronds
c g/frond
d < 0.5 cu m
e < 0.5 sq m

NA Not applicable
-- Not measured

TABLE B-5. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 5 (GLENDORA)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
CANARY ISLAND PINE	9	177	530	473	251
ITALIAN CYPRESS	3	59	33	5141	168
MONTEREY PINE	5	30	29	388	11
TOTAL	17	266	592	NA	430
BROAD-LEAF TREES					
ASH	12	1202	3952	167	660
CALIFORNIA LIVE OAK	9	939	1577	310	488
MAPLE	4	333	1542	44	67
CHINESE ELM	3	138	1525	25	39
JACARANDA	4	349	1351	90	122
AMERICAN ELM	6	202	550	28	15
CARROTWOOD	2	107	434	--	--
CRAPE MYRTLE	20	181	285	951	271
VICTORIAN BOX	2	51	54	2661	143
OLIVE	2	25	38	497	19
BIRCH	3	64	36	--	--
APPLE	1	13	34	--	--
CAMPHOR	2	98	33	75	2
ORANGE JESSAMINE	1	20	33	--	--
ACACIA TREE	1	13	25	154	4
PEACH	4	36	17	--	--
LIQUIDAMBAR	2	20	15	--	--
APRICOT	1	13	13	--	--
RIBBON GUM	1	28	11	341	4
CITRUS	4	11	11	282	3
FICUS TREE	5	19	9	--	--
CALIFORNIA SYCAMORE	1	7	4	86	a
ORCHID TREE	2	6	2	--	--
MIMOSA	2	6	2	--	--
BEECH	1	7	1	--	--
PURPLELEAF PLUM	1	3	1	--	--
TREE (unid.)	1	6	8	--	--
TOTAL	97	3897	11563	NA	1837
PALMS					
CALIFORNIA FAN PALM	6	61	200b	519c	104
TOTAL	6	61	200b	NA	104
SHRUBS					
JUNIPER	4	46	58	3741	217
CHINESE JUNIPER	38	77	57	3741	214
ARBOR-VITAE	3	16	37	--	--
SOFT-TIPPED YUCCA	8	25	34	--	--
OLEANDER	3	21	34	232	8
HOLLY	8	21	26	--	--
ROSE	43	33	25	357	9
PHILODENDRON	5	15	24	--	--
CAMELLIA	9	15	21	1571	33
BOTTLEBRUSH	3	11	15	472	7

TABLE B-5 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
PODOCARPUS SHRUB	9	9	14	236	3
COMMON MYRTLE	1	7	14	50	1
HEAVENLY BAMBOO	8	10	11	547	6
GLOSSY PRIVET	7	8	9	230	2
HIBISCUS	4	8	8	400	3
FUCHSIA	1	3	4	--	--
AUSTRALIAN TREE FERN	1	3	4	--	--
POINSETTIA	1	2	2	--	--
BIRD OF PARADISE	1	2	2	--	--
AZALEA	1	2	1	--	--
ALOE	5	2	1	--	--
COTONEASTER	2	1	d	263	a
SHRUB (unid.)	3	3	3	--	--
TOTAL	168	340	404	NA	503
LAWNS & GRASSES					
GRASS (unid.)	9	19293	NA	NA	NA
TOTAL	9	19293	NA	NA	NA
GROUND COVER					
AFRICAN DAISY	3	160	NA	NA	NA
IVY	1	98	NA	NA	NA
MIXED FLOWERS	2	10	NA	NA	NA
BRACKEN FERN	2	10	NA	NA	NA
GERANIUM	2	7	NA	NA	NA
JADE PLANT	4	6	NA	NA	NA
STAR JASMINE	2	5	NA	NA	NA
AFRICAN LILY	2	2	NA	NA	NA
GROUND COVER (unid.)	1	3	NA	NA	NA
TOTAL	19	301	NA	NA	NA

a < 0.5 kg
b Number of fronds
c g/frond
d < 0.5 cu m

-- Not measured
NA Not applicable

TABLE B-6. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 6 (WEST COVINA)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
ITALIAN CYPRESS	21	50	207	5141	1063
MONTEREY PINE	6	38	84	388	32
ARAUCARIA	12	27	46	--	--
ONE-LEAVED PINYON	1	1	a	--	--
TOTAL	40	116	337	NA	1095
BROAD-LEAF TREES					
ASH	13	860	6111	167	1021
MAPLE	4	139	2035	44	89
AMERICAN ELM	6	337	1710	28	47
TULIP TREE	12	215	878	--	--
BLACK LOCUST	2	170	823	19	16
JACARANDA	3	86	635	90	57
MAGNOLIA	15	172	631	345	217
CHINESE ELM	2	46	169	25	4
EVERGREEN PEAR	5	48	134	180	24
PERUVIAN PEPPER	1	29	119	149	18
CALIFORNIA LIVE OAK	2	27	109	310	34
SILVER DOLLAR GUM	3	18	108	268	29
CARROTWOOD	1	26	102	--	--
CITRUS	7	39	97	282	27
MIMOSA	1	24	87	--	--
PURPLELEAF PLUM	5	36	77	--	--
CRAPE MYRTLE	10	47	76	951	72
FICUS TREE	1	20	65	--	--
ALDER	3	14	43	--	--
PRUNUS	2	1	1	--	--
PEACH	1	1	1	--	--
AVOCADO	1	1	a	59	b
TREE (unid.)	5	16	30	--	--
TOTAL	105	2372	14041	NA	1655
PALMS					
CALIFORNIA FAN PALM	1	10	40c	519d	21
COCOS PALM	2	51	24c	--	--
TOTAL	3	61	64c	NA	21
SHRUBS					
BOTTLEBRUSH	7	103	406	472	191
PHILODENDRON	35	82	98	--	--
HIBISCUS	12	40	97	400	39
JUNIPER	44	91	95	3741	354
SOFT-TIPPED YUCCA	25	61	83	--	--
CHINESE JUNIPER	16	76	72	3741	271
ROSE	65	79	69	357	25
PAMPAS GRASS	2	25	67	--	--
CAMELLIA	26	57	66	1571	104
HEAVENLY BAMBOO	30	47	52	547	29
HOLLY	10	31	47	--	--
PODOCARPUS SHRUB	13	29	39	236	9

TABLE B-6 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
PYRACANTHA	17	22	39	291	11
BIRD OF PARADISE	17	32	35	--	--
HEBE	10	24	35	--	--
SHINY XYLOSMA	4	11	13	472	6
POINSETTIA	6	12	12	--	--
MAHONIA	4	10	12	--	--
JAPAN. PITTOSPORUM	1	8	6	2661	16
LANTANA	2	5	6	--	--
BOUGAINVILLEA	1	3	4	--	--
ABELIA	3	3	2	1446	2
CAPE-HONEYSUCKLE	1	3	2	634	1
FICUS SHRUB	1	2	2	--	--
ARALIA	2	2	2	--	--
FUCHSIA	1	2	2	--	--
FERN (unid.)	1	1	1	--	--
SHRUB (unid.)	12	41	72	--	--
TOTAL	368	902	1436	NA	1058
LAWNS & GRASSES					
GRASS (unid.)	69	18721	NA	NA	NA
DICHONDRA	23	1791	NA	NA	NA
TOTAL	92	20512	NA	NA	NA
GROUND COVER					
IVY	25	567	NA	NA	NA
GERANIUM	5	23	NA	NA	NA
PRIMROSE	4	22	NA	NA	NA
LILY	5	21	NA	NA	NA
AFRICAN DAISY	2	20	NA	NA	NA
PERIWINKLE	2	20	NA	NA	NA
ICE PLANT	2	18	NA	NA	NA
MIXED FLOWERS	4	12	NA	NA	NA
IRIS	1	3	NA	NA	NA
TULE	1	2	NA	NA	NA
MARIGOLD	1	1	NA	NA	NA
SEDUM	1	1	NA	NA	NA
JADE PLANT	4	e	NA	NA	NA
SUCCULENT (unid.)	1	1	NA	NA	NA
FERN (unid.)	1	1	NA	NA	NA
GROUND COVER (unid.)	8	140	NA	NA	NA
TOTAL	67	852	NA	NA	NA

a < 0.5 cu m
b < 0.5 kg
c Number of fronds
d g/frond
e < 0.5 sq m

-- Not measured
NA Not applicable

TABLE B-7. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 7 (MONTEBELLO)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
ITALIAN CYPRESS	41	41	217	5141	1115
DEODAR CEDAR	1	42	180	921	166
MONTEREY PINE	9	18	19	388	8
REDWOOD	1	7	9	--	--
ARAUCARIA	1	1	1	--	--
TOTAL	53	109	426	NA	1289
BROAD-LEAF TREES					
CHINESE ELM	11	416	2770	25	70
AVOCADO	11	280	970	59	57
PODOCARPUS TREE	1	117	951	236	225
ASH	2	102	755	167	126
MAPLE	4	66	256	44	11
CAMPHOR	4	55	184	75	14
FICUS TREE	10	52	142	--	--
CAROB	1	29	119	--	--
BLACK WALNUT	1	22	111	--	--
CRAPE MYRTLE	5	35	94	951	89
VICTORIAN BOX	4	66	60	2661	160
CORAL TREE	2	18	52	--	--
MAGNOLIA	6	24	45	345	16
APPLE	3	9	32	--	--
CALIFORNIA LIVE OAK	1	11	26	310	8
BANANA	11	17	16	--	--
BLACK LOCUST	1	7	15	19	a
MIMOSA	4	11	14	--	--
MAIDENHAIR	1	2	14	--	--
ALDER	3	6	13	--	--
PEACH	4	8	9	--	--
TULIP TREE	1	3	8	--	--
FIG	1	4	5	--	--
SILVER DOLLAR GUM	2	3	3	268	1
CITRUS	3	3	3	282	1
AMERICAN ELM	1	2	2	28	a
PERUVIAN PEPPER	1	1	1	149	a
TREE (unid.)	4	28	91	--	--
TOTAL	103	1397	6761	NA	778
PALMS					
CALIFORNIA FAN PALM	2	20	70b	519c	36
COCOS PALM	6	153	38b	--	--
CANARY ISLAND PALM	1	26	36b	554c	20
TOTAL	9	199	144b	NA	56
SHRUBS					
ROSE	140	176	160	357	57
BOTTLEBRUSH	5	50	152	472	72
PYRACANTHA	14	57	117	291	34
CHINESE JUNIPER	78	129	103	3741	385
CAMELLIA	24	65	83	1571	130

TABLE B-7 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
SOFT-TIPPED YUCCA	19	50	62	--	--
BIRD OF PARADISE	27	49	51	--	--
PODOCARPUS SHRUB	8	28	47	236	11
JAPAN. PITTOSPORUM	19	45	42	2661	112
POINSETTIA	16	33	36	--	--
SHINY XYLOSMA	9	23	34	472	16
AZALEA	14	28	30	--	--
HEAVENLY BAMBOO	17	27	27	547	15
HIBISCUS	6	17	25	400	10
PHILODENDRON	13	19	18	--	--
TREE TOBACCO	2	5	16	--	--
INDIA-HAWTHORN	10	13	12	553	6
COTONEASTER	6	12	12	263	3
OLEANDER	5	11	12	232	3
HEBE	14	13	11	--	--
AGAVE	7	10	9	--	--
TUTTLE NATAL PLUM	2	6	8	160	1
SUNFLOWER	6	7	6	--	--
PRICKLY PEAR	3	6	6	--	--
LEADWORT	1	4	6	646	4
AUSTRALIAN TREE FERN	4	5	4	--	--
HOLLY	2	3	3	--	--
LANTANA	1	2	2	--	--
JUNIPER	2	2	2	3741	6
ASPARAGUS FERN	1	1	1	--	--
SHRUB (unid.)	8	18	21	--	--
TOTAL	483	914	1118	NA	865
LAWNS & GRASSES					
GRASS (unid.)	66	4644	NA	NA	NA
TOTAL	66	4644	NA	NA	NA
GROUND COVER					
IVY	5	180	NA	NA	NA
MIXED FLOWERS	4	97	NA	NA	NA
ICE PLANT	3	68	NA	NA	NA
JADE PLANT	8	15	NA	NA	NA
GLADIOLUS	5	10	NA	NA	NA
GERANIUM	1	7	NA	NA	NA
LILY	1	6	NA	NA	NA
PERIWINKLE	1	1	NA	NA	NA
TOTAL	28	384	NA	NA	NA

a < 0.5 kg
b Number of fronds
c g/frond

-- Not measured
NA Not applicable

TABLE B-8. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 8 (LA HABRA)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
CANARY ISLAND PINE	11	35	5	473	2
TOTAL	11	35	5	NA	2
BROAD-LEAF TREES					
LONDON PLANE	6	118	98	--	--
APRICOT	1	28	23	--	--
PURPLELEAF PLUM	2	25	7	--	--
ORCHID TREE	1	13	2	--	--
TOTAL	10	184	130	NA	a
PALMS					
CALIFORNIA FAN PALM	1	10	1b	519c	a
TOTAL	1	10	1b	NA	a
SHRUBS					
BERRY	2	14	28	--	--
AZALEA	7	12	12	--	--
POINSETTIA	2	6	8	--	--
ROSE	10	8	5	357	2
CAMELLIA	1	3	4	1571	7
LEADWORT	1	1	1	646	a
SHRUB (unid.)	2	4	5	--	--
TOTAL	25	48	63	NA	9
LAWNS & GRASSES					
GRASS (unid.)	5	861	NA	NA	NA
TOTAL	5	861	NA	NA	NA
GROUND COVER					
IVY	1	37	NA	NA	NA
GRAPE	1	13	NA	NA	NA
TOTAL	2	50	NA	NA	NA

a < 0.5 kg
b Number of fronds
c g/frond

-- Not measured
NA Not applicable

TABLE B-9. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 9 (PLACENTIA)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
MONTEREY PINE	26	902	2581	388	1002
CANARY ISLAND PINE	3	38	31	473	15
DEODAR CEDAR	3	16	28	921	26
ITALIAN CYPRESS	5	9	7	5141	38
TOTAL	37	965	2647	NA	1081
BROAD-LEAF TREES					
ASH	7	380	664	167	111
CARROTWOOD	5	192	449	--	--
SILVER DOLLAR GUM	3	151	241	268	65
CALIFORNIA SYCAMORE	2	101	67	86	6
PODOCARPUS TREE	1	8	51	236	12
FICUS TREE	2	25	34'	--	--
CITRUS	8	18	21	282	6
MAPLE	1	13	21	44	1
CASUARINA	2	39	20	--	--
EVERGREEN PEAR	2	25	20	180	4
OLIVE	2	16	14	497	7
TREE (unid.)	4	43	69	--	--
TOTAL	39	1011	1671	NA	212
PALMS					
CALIFORNIA FAN PALM	2	20	40a	519b	21
COCOS PALM	1	26	12a	--	--
TOTAL	3	46	52a	NA	21
SHRUBS					
JUNIPER	39	209	167	3741	626
ARALIA	17	25	27	--	--
SOFT-TIPPED YUCCA	3	16	27	--	--
SHINY XYLOSMA	5	16	21	472	10
TUTTLE NATAL PLUM	3	15	19	160	3
HOLLY	4	13	17	--	--
PODOCARPUS SHRUB	8	24	15	236	3
INDIA-HAWTHORN	4	12	13	553	7
BIRD OF PARADISE	7	6	4	--	--
OLEANDER	1	3	4	232	1
GLOSSY PRIVET	1	3	4	230	1
HEAVENLY BAMBOO	1	3	4	547	2
AZALEA	23	4	2	--	--
AUSTRALIAN TREE FERN	4	3	2	--	--
STAR JASMINE	1	2	1	--	--
CAMELLIA	1	1	1	1571	1
ROSE	1	1	1	357	c
HEBE	1	1	1	--	--
SHRUB (unid.)	1	19	6	--	--
TOTAL	125	376	336	NA	654

TABLE B-9 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
LAWNS & GRASSES					
GRASS (unid.)	11	15701	NA	NA	NA
DICHONDRA	9	558	NA	NA	NA
TOTAL	20	16259	NA	NA	NA
GROUND COVER					
AFRICAN DAISY	2	119	NA	NA	NA
MIXED FLOWERS	2	23	NA	NA	NA
GERANIUM	2	12	NA	NA	NA
FIVE FINGER	1	8	NA	NA	NA
ICE PLANT	1	7	NA	NA	NA
LILY	9	2	NA	NA	NA
TOTAL	17	171	NA	NA	NA

a Number of fronds
b g/frond
c < 0.5 kg

-- Not measured
NA Not applicable

TABLE B-10. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 10 (SANTA ANA)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
BROAD-LEAF TREES					
RIBBON GUM	8	526	5776	341	1970
CALIFORNIA SYCAMORE	26	203	788	86	68
AMERICAN ELM	45	210	660	28	18
CAMPHOR	18	146	408	75	31
PERUVIAN PEPPER	4	138	331	149	49
CORAL TREE	1	66	134	--	--
CITRUS	22	37	37	282	10
CRAPE MYRTLE	5	15	20	951	19
APPLE	10	13	11	--	--
CARROTWOOD	1	3	8	--	--
SILVER DOLLAR GUM	2	3	3	268	1
PEACH	1	1	a	--	--
TOTAL	143	1361	8176	NA	2166
PALMS					
COCOS PALM	3	77	34b	--	--
CALIFORNIA FAN PALM	1	10	16b	519c	8
TOTAL	4	87	50b	NA	8
SHRUBS					
SHINY XYLOSMA	53	182	283	472	134
GLOSSY PRIVET	63	138	156	230	36
MAHONIA	41	103	123	--	--
JAPAN. PITTOSPORUM	69	134	110	2661	291
HEBE	53	81	78	--	--
NOEL GREVILLEA	7	39	70	--	--
INDIA-HAWTHORN	74	77	61	553	34
CAMELLIA	30	51	51	1571	80
STAR JASMINE	34	41	34	--	--
ESCALLONIA	11	28	33	--	--
PODOCARPUS SHRUB	14	28	30	236	7
HOLLY	49	28	16	--	--
HEAVENLY BAMBOO	15	18	15	547	8
HIBISCUS	6	12	12	400	5
PYRACANTHA	11	11	8	291	2
CHINESE JUNIPER	11	8	5	3741	19
BIRD OF PARADISE	1	1	1	--	--
ASPARAGUS FERN	2	22	a	--	--
HALL'S HONEYSUCKLE	1	9	a	392	d
TOTAL	545	1011	1086	NA	616
LAWNS & GRASSES					
GRASS (unid.)	36	1613	NA	NA	NA
TOTAL	36	1613	NA	NA	NA

TABLE B-10 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
GROUND COVER					
IVY	52	812	NA	NA	NA
MIXED FLOWERS	2	41	NA	NA	NA
LILY	36	27	NA	NA	NA
AFRICAN DAISY	1	18	NA	NA	NA
ICE PLANT	5	9	NA	NA	NA
TOTAL	96	907	NA	NA	NA

a < 0.5 cu m
b Number of fronds
c g/frond
d < 0.5 kg

-- Not measured
NA Not applicable

TABLE B-11. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 11 (NEWPORT BEACH)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
CANARY ISLAND PINE	45	318	156	473	74
MONTEREY PINE	46	285	120	388	47
TOTAL	91	603	276	NA	121
BROAD-LEAF TREES					
CALIFORNIA SYCAMORE	13	368	1470	86	126
ARROYO WILLOW	5	251	536	--	--
PRUNUS	25	114	87	--	--
BRAZILIAN PEPPER	8	90	87	70	6
PERUVIAN PEPPER	1	7	14	149	2
MAPLE	1	7	5	44	a
TOTAL	53	837	2199	NA	134
PALMS					
CALIFORNIA FAN PALM	1	10	35b	519c	18
TOTAL	1	10	35b	NA	18
SHRUBS					
PRUNUS SHRUB	17	334	445	--	--
CHINESE JUNIPER	89	47	26	3741	98
COMMON MYRTLE	20	15	10	50	1
GLOSSY PRIVET	4	13	10	230	2
TERNSTROEMIA	9	9	7	--	--
JUNIPER	4	4	6	3741	23
INDIA-HAWTHORN	9	7	5	553	3
CAPE-HONEYSUCKLE	1	7	4	634	3
HALL'S HONEYSUCKLE	1	5	3	392	1
HEAVENLY BAMBOO	9	4	2	547	1
ROSE	4	3	2	357	1
PHILODENDRON	2	2	2	--	--
ARALIA	1	1	1	--	--
AZALEA	1	d	e	--	--
JAPAN. PITTOSPORUM	2	d	e	2661	a
SHRUB (unid.)	3	10	18	--	--
TOTAL	176	461	541	NA	133
LAWNS & GRASSES					
GRASS (unid.)	1	893	NA	NA	NA
TOTAL	1	893	NA	NA	NA

TABLE B-11 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
GROUND COVER					
FIVE FINGER	8	172	NA	NA	NA
LILY	1	d	NA	NA	NA
TOTAL	9	172	NA	NA	NA

a < 0.5 kg
b Number of fronds
c g/frond
d < 0.5 sq m
e < 0.5 cu m

-- Not measured
NA Not applicable

TABLE B-12. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 12 (COSTA MESA)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
MONTEREY PINE	18	450	2176	388	844
ITALIAN CYPRESS	22	22	23	5141	120
CANARY ISLAND PINE	2	5	8	473	4
TOTAL	42	477	2207	NA	968
BROAD-LEAF TREES					
ASH	34	543	2317	167	387
CHINESE ELM	4	217	913	25	23
ACACIA TREE	2	90	361	154	56
SILVER DOLLAR GUM	44	120	291	268	78
CORAL TREE	4	72	279	--	--
PERUVIAN PEPPER	7	63	127	149	19
AVOCADO	6	28	114	59	7
RIBBON GUM	2	50	92	341	31
OLIVE	3	31	81	497	40
POMAGRANATE	1	11	51	--	--
VICTORIAN BOX	3	49	48	2661	126
CAMPHOR	4	20	37	75	3
CALIFORNIA SYCAMORE	1	7	30	86	3
PEACH	6	16	25	--	--
BANANA	5	12	22	--	--
SILK OAK	1	7	19	--	--
AMERICAN ELM	1	5	15	28	a
CITRUS	5	8	11	282	3
BRISBANE BOX	2	5	10	--	--
FICUS TREE	2	5	6	--	--
APRICOT	1	4	5	--	--
NAGAMI KUMQUAT	1	4	5	--	--
APPLE	3	5	4	--	--
ALDER	1	3	3	--	--
CARROTWOOD	1	1	1	--	--
TREE (unid.)	2	419	658	--	--
TOTAL	146	1795	5525	NA	776
PALMS					
CALIFORNIA FAN PALM	8	81	206b	519c	107
CANARY ISLAND PALM	1	26	70b	554c	39
COCOS PALM	4	102	28b	--	--
TOTAL	13	209	304b	NA	146
SHRUBS					
OLEANDER	16	95	174	232	40
BOTTLEBRUSH	23	81	174	472	82
JUNIPER	40	105	124	3741	463
GLOSSY PRIVET	20	48	67	230	15
TUMBLEWEED	35	42	35	--	--
HIBISCUS	11	20	25	400	10
CAMELLIA	11	24	22	1571	35
PYRACANTHA	6	23	19	291	5
ROSE	36	25	16	357	6

TABLE B-12 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
HEBE	6	15	14	--	--
SHINY XYLOSMA	4	10	14	472	6
PODOCARPUS SHRUB	6	7	14	236	3
HEAVENLY BAMBOO	16	15	12	547	6
BIRD OF PARADISE	9	10	8	--	--
PHILODENDRON	8	9	7	--	--
SOFT-TIPPED YUCCA	3	6	7	--	--
BOUGAINVILLEA	3	5	5	--	--
COTONEASTER	1	3	4	263	1
JAPAN. PITTOSPORUM	4	5	3	2661	9
LANTANA	3	4	3	--	--
TUTTLE NATAL PLUM	1	3	3	160	a
AZALEA	5	4	2	--	--
INDIA-HAWTHORN	1	2	2	553	1
BAMBOO	2	2	1	--	--
HALL'S HONEYSUCKLE	1	1	1	392	a
ASPARAGUS FERN	1	1	1	--	--
FUCHSIA	1	1	d	--	--
SHRUB (unid.)	3	3	3	--	--
TOTAL	276	569	760	NA	682
LAWNS & GRASSES					
GRASS (unid.)	56	6612	NA	NA	NA
TOTAL	56	6612	NA	NA	NA
GROUND COVER					
IVY	4	83	NA	NA	NA
JADE PLANT	12	11	NA	NA	NA
MIXED FLOWERS	1	9	NA	NA	NA
LILY	17	8	NA	NA	NA
GERANIUM	6	5	NA	NA	NA
AFRICAN DAISY	1	3	NA	NA	NA
ICE PLANT	1	1	NA	NA	NA
SEDUM	1	e	NA	NA	NA
SUCCULENT (unid.)	2	5	NA	NA	NA
GROUND COVER (unid.)	1	93	NA	NA	NA
TOTAL	46	218	NA	NA	NA

a < 0.5 kg
b Number of fronds
c g/frond
d < 0.5 cu m
e < 0.5 sq m

NA Not applicable
-- Not measured

TABLE B-13. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 13 (HUNTINGTON BEACH)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
CANARY ISLAND PINE	10	179	1016	473	481
MONTEREY PINE	12	61	90	388	35
ITALIAN CYPRESS	30	67	64	5141	327
ARAUCARIA	2	21	64	--	--
TOTAL	54	328	1234	NA	843
BROAD-LEAF TREES					
MAPLE	16	198	1442	44	63
AMERICAN ELM	17	292	1397	28	39
PRUNUS	9	263	1070	--	--
RIBBON GUM	23	189	635	341	217
ASH	14	103	355	167	59
CORAL TREE	1	66	321	--	--
SILVER DOLLAR GUM	4	24	211	268	56
PERUVIAN PEPPER	6	83	134	149	20
OLIVE	11	55	107	497	53
ALDER	1	11	54	--	--
AVOCADO	1	11	54	59	3
APPLE	7	29	46	--	--
BANANA	1	8	13	--	--
CHINESE ELM	2	7	10	25	a
PURPLELEAF PLUM	2	4	4	--	--
CITRUS	4	1	b	282	a
TREE (unid.)	4	7	7	--	--
TOTAL	123	1351	5860	NA	510
PALMS					
CALIFORNIA FAN PALM	2	20	58c	519d	30
COCOS PALM	2	51	16c	--	--
TOTAL	4	71	74c	NA	30
SHRUBS					
BOTTLEBRUSH	70	170	245	472	115
PODOCARPUS SHRUB	115	162	149	236	35
CAMELLIA	63	105	107	1571	167
SHINY XYLOSMA	101	108	90	472	43
JUNIPER	31	89	65	3741	242
HIBISCUS	37	56	56	400	22
CAPE-HONEYSUCKLE	66	76	55	634	35
SOFT-TIPPED YUCCA	13	37	49	--	--
HEAVENLY BAMBOO	24	32	29	547	16
OLEANDER	14	27	28	232	6
ARALIA	3	11	19	--	--
PYRACANTHA	20	22	18	291	5
COTONEASTER	14	15	12	263	3
HEBE	9	11	9	--	--
LEADWORT	8	10	8	646	5
PHILODENDRON	6	9	8	--	--
CHINESE JUNIPER	3	8	6	3741	24
ABELIA	3	7	6	1446	8

TABLE B-13 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
TUTTLE NATAL PLUM	3	5	5	160	1
AUSTRALIAN TREE FERN	4	5	5	--	--
ROSE	20	6	4	357	1
AZALEA	11	4	2	--	--
HOLLY	2	2	1	--	--
INDIA-HAWTHORN	3	1	1	553	a
BIRD OF PARADISE	1	1	1	--	--
HALL'S HONEYSUCKLE	1	1	b	392	a
FERN (unid.)	4	5	4	--	--
SHRUB (unid.)	9	13	15	--	--
TOTAL	658	998	997	NA	728
LAWNS & GRASSES					
GRASS (unid.)	38	3953	NA	NA	NA
TOTAL	38	3953	NA	NA	NA
GROUND COVER					
IVY	32	725	NA	NA	NA
GERANIUM	4	15	NA	NA	NA
MIXED FLOWERS	3	9	NA	NA	NA
JADE PLANT	5	6	NA	NA	NA
WANDERING JEW	1	4	NA	NA	NA
CREEPING CHARLEY	2	4	NA	NA	NA
CHRYSANTHEMUM	1	3	NA	NA	NA
PERIWINKLE	1	3	NA	NA	NA
TULE	2	3	NA	NA	NA
MINT	1	2	NA	NA	NA
BEGONIA	1	1	NA	NA	NA
FERN (unid.)	4	11	NA	NA	NA
TOTAL	57	786	NA	NA	NA

a < 0.5 kg
b < 0.5 cu m
c Number of fronds
d g/frond

-- Not measured
NA Not applicable

TABLE B-14. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 14 (LONG BEACH)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
MONTEREY PINE	23	333	400	388	155
CANARY ISLAND PINE	16	201	375	473	178
TOTAL	39	534	775	NA	333
BROAD-LEAF TREES					
AMERICAN ELM	12	186	703	28	19
WILLOW	23	476	513	--	--
WEEPING WILLOW	19	229	194	106	21
WILLOW	5	141	170	--	--
CALIFORNIA LIVE OAK	16	98	132	310	41
RIBBON GUM	12	151	101	341	34
CALIFORNIA SYCAMORE	34	107	18	86	2
QUAKING ASPEN	2	25	7	--	--
ASH	12	21	a	167	b
TOTAL	135	1434	1838	NA	117
SHRUBS					
PAMPAS GRASS	1	7	10	--	--
MULE FAT	22	156	3	--	--
TOTAL	23	163	13	NA	b

a < 0.5 cu m
b < 0.5 kg

-- Not measured
NA Not applicable

TABLE B-15. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 15 (COMPTON)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
DEODAR CEDAR	2	63	64	921	59
ITALIAN CYPRESS	18	12	15	5141	76
TOTAL	20	75	79	NA	135
BROAD-LEAF TREES					
MAPLE	3	116	943	44	41
BLACK LOCUST	18	462	789	19	15
ASH	3	113	570	167	95
APRICOT	4	126	362	--	--
BRAZILIAN PEPPER	6	118	236	70	17
WILLOW	2	57	181	--	--
FICUS TREE	1	28	113	--	--
CITRUS	5	42	91	282	26
CHINESE ELM	1	20	66	25	2
PURPLELEAF PLUM	1	20	33	--	--
BLACK WALNUT	1	13	24	--	--
PECAN	1	3	4	--	--
PEACH	1	3	2	--	--
MAGNOLIA	1	2	2	345	1
APPLE	1	3	1	--	--
CRAPE MYRTLE	2	2	1	951	1
TOTAL	51	1128	3418	NA	198
PALMS					
DATE PALM	2	51	180a	554b	100
CALIFORNIA FAN PALM	1	10	30a	519b	16
TOTAL	3	61	210a	NA	116
SHRUBS					
BOTTLEBRUSH	6	118	236	472	111
PYRACANTHA	29	72	95	291	27
GLOSSY PRIVET	4	77	86	230	20
SOFT-TIPPED YUCCA	17	22	36	--	--
PHILODENDRON	18	26	33	--	--
HIBISCUS	3	16	30	400	12
OLEANDER	3	16	26	232	6
ARBOR-VITAE	9	14	17	--	--
ROSE	22	14	10	357	3
CAMELLIA	4	7	7	1571	11
BIRD OF PARADISE	14	9	6	--	--
AGAVE	2	4	5	--	--
CHINESE JUNIPER	37	12	4	3741	15
LEADWORT	1	3	4	646	3
POINSETTIA	1	2	2	--	--
RIBBON PLANT	1	2	2	--	--
AZALEA	1	2	2	--	--
ALOE	13	3	1	--	--
TUTTLE NATAL PLUM	2	2	1	160	c
FICUS SHRUB	1	1	1	--	--
AUSTRALIAN TREE FERN	1	1	1	--	--

TABLE B-15 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
COTONEASTER	1	1	1	263	c
PODOCARPUS SHRUB	2	d	1	236	c
FUCHSIA	1	d	e	--	--
SHRUB (unid.)	4	1	e	--	--
TOTAL	197	425	607	NA	208
LAWNS & GRASSES					
GRASS (unid.)	35	5921	NA	NA	NA
TOTAL	35	5921	NA	NA	NA
GROUND COVER					
IVY	2	85	NA	NA	NA
MIXED FLOWERS	8	41	NA	NA	NA
WANDERING JEW	1	8	NA	NA	NA
JADE PLANT	5	7	NA	NA	NA
GERANIUM	21	5	NA	NA	NA
BRACKEN FERN	1	2	NA	NA	NA
ICE PLANT	1	2	NA	NA	NA
SCOURING RUSH	1	1	NA	NA	NA
IRIS	1	1	NA	NA	NA
LILY	5	1	NA	NA	NA
TULE	1	1	NA	NA	NA
SUCCULENT (unid.)	4	2	NA	NA	NA
TOTAL	51	156	NA	NA	NA

a Number of fronds
b g/frond
c < 0.5 kg
d < 0.5 sq m
e < 0.5 cu m

-- Not measured
NA Not applicable

TABLE B-16. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 16 (LONG BEACH)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
MONTEREY PINE	11	76	41	388	16
ITALIAN CYPRESS	38	9	6	5141	31
SAGO PALM	1	3	4	--	--
TOTAL	50	88	51	NA	47
BROAD-LEAF TREES					
CALIFORNIA SYCAMORE	13	97	203	86	17
RIBBON GUM	101	463	66	341	22
CHINESE ELM	2	39	66	25	2
BRAZILIAN PEPPER	2	25	54	70	4
EVERGREEN PEAR	6	28	35	180	6
AMERICAN ELM	3	45	33	28	1
FICUS TREE	1	13	17	--	--
JACARANDA	1	3	11	90	1
CITRUS	4	22	10	282	3
BLACK LOCUST	2	6	8	19	a
VICTORIAN BOX	20	42	7	2661	18
AVOCADO	2	25	7	59	a
ORCHID TREE	1	3	4	--	--
PODOCARPUS TREE	2	20	3	236	1
MAGNOLIA	2	6	2	345	1
SILVER DOLLAR GUM	1	7	1	268	a
TOTAL	163	844	527	NA	76
PALMS					
CALIFORNIA FAN PALM	8	81	155b	519c	80
COCOS PALM	8	204	54b	--	--
TOTAL	16	285	209b	NA	80
SHRUBS					
BIRD OF PARADISE	24	90	196	--	--
OLEANDER	9	80	134	232	31
CAMELLIA	11	52	98	1571	153
BOTTLEBRUSH	2	20	48	472	22
GLOSSY PRIVET	5	29	45	230	10
BOUGAINVILLEA	10	28	44	--	--
HEBE	133	64	37	--	--
POINSETTIA	3	17	33	--	--
ESCALLONIA	49	37	31	--	--
LANTANA	5	18	31	--	--
INDIA-HAWTHORN	88	34	30	553	16
CHINESE JUNIPER	23	50	28	3741	103
TUTTLE NATAL PLUM	12	27	26	160	4
HIBISCUS	7	14	23	400	9
PHILODENDRON	6	17	22	--	--
JUNIPER	24	35	17	3741	64
PYRACANTHA	2	8	14	291	4
HEAVENLY BAMBOO	5	11	13	547	7
LINGLESH	4	6	11	--	--
AZALEA	15	9	9	--	--

TABLE B-16 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
SOFT-TIPPED YUCCA	2	6	8	--	--
JAPAN. PITTOSPORUM	98	19	6	2661	17
VIBURNUM	7	6	4	--	--
SHINY XYLOSMA	31	6	2	472	1
CHUPAROSA	13	4	2	--	--
ABELIA	90	4	1	1446	1
COTONEASTER	15	3	1	263	a
ROSE	1	1	1	357	a
AUSTRALIAN TREE FERN	7	1	1	--	--
BURNING BUSH	8	67	d	--	--
ASPARAGUS FERN	1	2	d	--	--
PRUNUS SHRUB	3	1	d	--	--
PODOCARPUS SHRUB	1	e	d	236	a
ALOE	2	e	d	--	--
TOTAL	716	766	916	NA	442
LAWNS & GRASSES					
DICHONDRA	3	98	NA	NA	NA
GRASS (unid.)	24	3706	NA	NA	NA
TOTAL	27	3804	NA	NA	NA
GROUND COVER					
MIXED FLOWERS	13	391	NA	NA	NA
IVY	9	95	NA	NA	NA
TULE	3	9	NA	NA	NA
AFRICAN LILY	6	7	NA	NA	NA
JADE PLANT	9	5	NA	NA	NA
BRACKEN FERN	5	4	NA	NA	NA
SCOURING RUSH	1	2	NA	NA	NA
AFRICAN DAISY	1	2	NA	NA	NA
IRIS	17	1	NA	NA	NA
POLYPODY FERN	1	1	NA	NA	NA
GERANIUM	1	e	NA	NA	NA
TOTAL	66	517	NA	NA	NA

a < 0.5 kg
b Number of fronds
c g/frond
d < 0.5 cu m
e < 0.5 sq m

NA Not applicable
-- Not measured

TABLE B-17. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 17 (PALOS VERDES ESTATES)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
MONTEREY PINE	13	477	518	388	201
CANARY ISLAND PINE	5	63	34	473	16
ITALIAN CYPRESS	2	3	4	5141	21
CONIFER (unid.)	1	3	1	--	--
TOTAL	21	546	557	NA	238
BROAD-LEAF TREES					
RIBBON GUM	68	1492	1322	341	451
PERUVIAN PEPPER	13	701	1205	149	179
ACACIA TREE	4	119	349	154	54
VICTORIAN BOX	12	205	99	2661	263
APPLE	1	50	80	--	--
JACARANDA	7	102	75	90	7
SILVER DOLLAR GUM	3	59	49	268	13
BRAZILIAN PEPPER	4	43	48	70	3
OLIVE	1	20	46	497	23
AMERICAN ELM	1	13	34	28	1
CITRUS	3	21	28	282	8
APRICOT	1	20	23	--	--
BANANA	5	16	21	--	--
PRUNUS	1	13	20	--	--
MIMOSA	1	7	14	--	--
ALDER	5	16	7	--	--
BEECH	1	7	3	--	--
PODOCARPUS TREE	6	5	3	236	1
MAGNOLIA	1	3	3	345	1
TREE (unid.)	13	133	134	--	--
TOTAL	151	3045	3563	NA	1004
PALMS					
CALIFORNIA FAN PALM	17	173	805a	519b	418
CANARY ISLAND PALM	5	128	380a	554b	210
COCOS PALM	2	51	16a	--	--
TOTAL	24	352	1201a	NA	628
SHRUBS					
GLOSSY PRIVET	6	60	124	230	28
JASMINUM	2	26	74	--	--
CHINESE JUNIPER	34	130	69	3741	256
BOUGAINVILLEA	4	30	66	--	--
HIBISCUS	5	28	46	400	18
CALIFORNIA SAGE BRUSH	25	79	42	52	2
INDIA-HAWTHORN	20	28	40	553	22
JUNIPER	14	51	38	3741	144
BOTTLEBRUSH	3	27	35	472	17
TUTTLE NATAL PLUM	8	22	33	160	5
PYRACANTHA	6	23	28	291	8
SHINY XYLOSMA	2	14	28	472	13
LINGLESH	9	13	24	--	--
OLEANDER	3	13	19	232	4

TABLE B-17 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
ARBOR-VITAE	9	16	15	--	--
PAMPAS GRASS	1	7	14	--	--
LEADWORT	1	7	14	646	9
LANTANA	1	7	14	--	--
JAPAN. PITTOSPORUM	5	14	13	2661	33
CAMELLIA	3	9	13	1571	20
TREE TOBACCO	8	57	11	--	--
SOFT-TIPPED YUCCA	8	9	8	--	--
ABELIA	4	5	8	1446	11
COMMON MYRTLE	16	6	5	50	c
BIRD OF PARADISE	5	5	5	--	--
CAPE-HONEYSUCKLE	2	2	3	634	2
ROSE	21	4	1	357	c
NIGHTSHADE	1	1	1	--	--
PODOCARPUS SHRUB	1	d	1	236	c
ALOE	4	1	e	--	--
PHILODENDRON	2	d	e	--	--
AZALEA	8	d	e	--	--
SHRUB (unid.)	9	9	6	--	--
TOTAL	250	703	798	NA	592
LAWNS & GRASSES					
GRASS (unid.)	1	1926	NA	NA	NA
TOTAL	1	1926	NA	NA	NA
GROUND COVER					
IVY	7	116	NA	NA	NA
PERIWINKLE	1	112	NA	NA	NA
AFRICAN DAISY	6	93	NA	NA	NA
GERANIUM	2	61	NA	NA	NA
LILY	21	37	NA	NA	NA
HOARHOUND	1	19	NA	NA	NA
ICE PLANT	2	11	NA	NA	NA
JADE PLANT	2	6	NA	NA	NA
FIVE FINGER	1	1	NA	NA	NA
AFRICAN LILY	1	1	NA	NA	NA
GROUND COVER (unid.)	7	160	NA	NA	NA
TOTAL	51	617	NA	NA	NA

a Number of fronds
b g/frond
c < 0.5 kg
d < 0.5 sq m
e < 0.5 cu m

-- Not measured
NA Not applicable

TABLE B-18. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 18 (ROLLING HILLS)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
MONTEREY PINE	22	418	287	388	112
TOTAL	22	418	287	NA	112
BROAD-LEAF TREES					
RIBBON GUM	196	6663	5310	341	1811
PERUVIAN PEPPER	7	242	1102	149	164
CATALINA CHERRY	26	317	842	--	--
ASH	3	91	415	167	69
ACACIA TREE	10	97	287	154	44
CITRUS	17	119	257	282	72
CAMPHOR	5	62	189	75	14
VICTORIAN BOX	10	149	160	2661	425
EVERGREEN PEAR	4	50	134	180	24
CALIFORNIA LIVE OAK	1	28	113	310	35
ALDER	6	42	85	--	--
AVOCADO	6	42	85	59	5
JACARANDA	3	32	81	90	7
MAGNOLIA	4	34	76	345	26
PODOCARPUS TREE	3	22	70	236	17
APPLE	2	20	48	--	--
OLIVE	1	13	34	497	17
BRAZILIAN PEPPER	3	17	33	70	2
PEACH	7	22	29	--	--
PURPLELEAF PLUM	5	16	21	--	--
WALNUT	3	9	13	--	--
BLACK LOCUST	1	3	4	19	a
TASMANIAN BLUE GUM	2	2	b	--	--
EUCALYPTUS	4	50	20	--	--
TOTAL	329	8142	9408	NA	2732
SHRUBS					
CALIFORNIA SAGE BRUSH	615	1932	2576	52	134
TOYON	35	456	1266	--	--
COYOTE BUSH	173	537	714	--	--
ELDERBERRY	8	95	249	--	--
SUMAC	7	83	215	200	43
SYDNEY GOLDEN WATTLE	5	58	167	154	26
CHINESE JUNIPER	202	281	161	3741	603
ROSE	104	129	148	357	53
CAMELLIA	10	30	76	1571	119
GLOSSY PRIVET	6	18	72	230	17
TUTTLE NATAL PLUM	19	38	45	160	7
OLEANDER	12	31	37	232	9
PYRACANTHA	7	24	36	291	10
LINGLESH	19	34	34	--	--
BOUGAINVILLEA	1	13	34	--	--
HIBISCUS	8	21	32	400	13
INDIA-HAWTHORN	34	30	25	553	14
COTONEASTER	2	16	23	263	6
BOTTLEBRUSH	3	13	23	472	11
JUNIPER	1	20	21	3741	79
JAPAN. PITTOSPORUM	9	23	20	2661	53
BIRD OF PARADISE	5	14	19	--	--

TABLE B-18 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
LEADWORT	4	13	17	646	11
SOFT-TIPPED YUCCA	4	10	13	--	--
PHILODENDRON	3	9	13	--	--
CAPE-HONEYSUCKLE	9	14	11	634	7
HEBE	5	9	7	--	--
PODOCARPUS SHRUB	3	6	6	236	1
ALOE	2	6	3	--	--
AZALEA	4	3	2	--	--
AUSTRALIAN TREE FERN	2	2	1	--	--
NIGHTSHADE	5	2	1	--	--
BAMBOO	1	3	b	--	--
ASPARAGUS FERN	1	2	b	--	--
HEAVENLY BAMBOO	2	1	b	547	a
SHRUB (unid.)	1	3	4	--	--
TOTAL	1331	3979	6071	NA	1216
LAWNS & GRASSES					
GRASS (unid.)	6	16855	NA	NA	NA
TOTAL	6	16855	NA	NA	NA
GROUND COVER					
AFRICAN DAISY	11	1851	NA	NA	NA
ICE PLANT	4	1526	NA	NA	NA
IVY	2	484	NA	NA	NA
MIXED FLOWERS	1	56	NA	NA	NA
AFRICAN LILY	233	46	NA	NA	NA
JADE PLANT	4	16	NA	NA	NA
GERANIUM	1	2	NA	NA	NA
TOTAL	256	3981	NA	NA	NA

a < 0.5 kg
b < 0.5 cu m

-- Not measured
NA Not applicable

TABLE B-19. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 19 (LOS ANGELES)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
ITALIAN CYPRESS	38	23	66	5141	338
MONTEREY PINE	1	13	17	388	7
ARAUCARIA	1	7	4	--	--
TOTAL	40	43	87	NA	345
BROAD-LEAF TREES					
BLACK LOCUST	4	79	262	19	5
CHINESE ELM	1	20	262	25	7
VICTORIAN BOX	4	126	187	2661	498
CAMPHOR	3	151	161	75	12
PEACH	4	47	110	--	--
RIBBON GUM	6	75	80	341	27
APRICOT	1	20	65	--	--
CITRUS	8	32	47	282	13
CARROTWOOD	1	20	39	--	--
MAIDENHAIR	1	13	34	--	--
FICUS TREE	6	23	29	--	--
SILVER DOLLAR GUM	6	75	20	268	5
CRAPE MYRTLE	2	16	13	951	12
AVOCADO	1	13	13	59	1
MAGNOLIA	1	7	3	345	1
POMAGRANATE	1	a	b	--	--
TREE (unid.)	4	66	54	--	--
TOTAL	54	783	1379	NA	581
PALMS					
CANARY ISLAND PALM	2	51	270c	554d	150
CALIFORNIA FAN PALM	2	20	120c	519d	62
COCOS PALM	3	77	51c	--	--
TOTAL	7	148	441c	NA	212
SHRUBS					
JASMINUM	7	64	125	--	--
GLOSSY PRIVET	31	83	108	230	25
PYRACANTHA	28	81	92	291	27
PHILODENDRON	37	51	68	--	--
HIBISCUS	12	39	65	400	26
CAMELLIA	12	39	63	1571	99
ROSE	91	68	62	357	22
ABELIA	11	44	56	1446	82
OLEANDER	5	24	34	232	8
SHINY XYLOSMA	15	24	26	472	12
JAPAN. PITTOSPORUM	8	26	24	2661	63
POINSETTIA	7	18	24	--	--
SOFT-TIPPED YUCCA	24	20	21	--	--
BOUGAINVILLEA	9	13	20	--	--
BIRD OF PARADISE	20	20	17	--	--
HOLLY	2	8	15	--	--
LINGLESH	1	2	15	--	--
CHINESE JUNIPER	11	34	13	3741	49

TABLE B-19 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
SHRUBS (continued)					
PODOCARPUS SHRUB	7	10	9	236	2
NIGHTSHADE	4	7	9	--	--
ALOE	44	16	8	--	--
INDIA-HAWTHORN	8	8	7	553	4
FUCHSIA	2	4	4	--	--
TOMATO	1	3	4	--	--
BOTTLEBRUSH	2	3	2	472	1
AZALEA	4	2	2	--	--
JUNIPER	3	2	2	3741	6
ARBOR-VITAE	15	3	1	--	--
AUSTRALIAN TREE FERN	4	2	1	--	--
STAR JASMINE	1	1	b	--	--
CALLA LILY	1	a	b	--	--
AGAVE	1	a	b	--	--
COMMON MYRTLE	2	a	b	50	e
ASPARAGUS FERN	1	a	b	--	--
FERN (unid.)	4	1	b	--	--
SHRUB (unid.)	8	16	24	--	--
TOTAL	443	736	921	NA	426
LAWNS & GRASSES					
GRASS (unid.)	42	4836	NA	NA	NA
TOTAL	42	4836	NA	NA	NA
GROUND COVER					
MIXED FLOWERS	8	34	NA	NA	NA
IVY	5	28	NA	NA	NA
JADE PLANT	14	16	NA	NA	NA
TULE	3	9	NA	NA	NA
MARIGOLD	1	6	NA	NA	NA
CABBAGE	1	3	NA	NA	NA
AFRICAN DAISY	1	3	NA	NA	NA
GERANIUM	3	2	NA	NA	NA
GLADIOLUS	10	2	NA	NA	NA
CHARD	10	1	NA	NA	NA
FERN (unid.)	1	15	NA	NA	NA
TOTAL	57	119	NA	NA	NA

a < 0.5 sq m
b < 0.5 cu m
c Number of fronds
d g/frond
e < 0.5

-- Not measured
NA Not applicable

TABLE B-20. PROPERTIES OF URBAN VEGETATION FOUND IN POLYGON 20 (BALDWIN HILLS/HAWTHORNE)

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
CONIFERS					
MONTEREY PINE	2	31	121	388	47
CANARY ISLAND PINE	37	75	76	473	36
ITALIAN CYPRESS	13	54	68	5141	348
TOTAL	52	160	265	NA	431
BROAD-LEAF TREES					
MAGNOLIA	7	106	322	345	111
RIBBON GUM	21	68	288	341	98
BRAZILIAN PEPPER	4	79	194	70	14
CHINESE ELM	1	46	93	25	2
CITRUS	16	36	53	282	15
JACARANDA	11	24	32	90	3
ALDER	2	5	21	--	--
CRAPE MYRTLE	3	8	15	951	14
MAPLE	1	2	2	44	a
TOTAL	66	374	1020	NA	257
PALMS					
CALIFORNIA FAN PALM	3	31	62b	519c	32
TOTAL	3	31	62b	NA	32
SHRUBS					
HAWTHORN	29	67	108	--	--
SHINY XYLOSMA	25	68	79	472	37
BOTTLEBRUSH	17	20	61	472	29
JUNIPER	33	40	31	3741	117
JAPAN. PITTOSPORUM	62	37	22	2661	57
SOFT-TIPPED YUCCA	21	23	19	--	--
ARALIA	9	10	16	--	--
FUCHSIA	2	11	10	--	--
INDIA-HAWTHORN	48	15	9	553	5
ROSE	14	12	8	357	3
HIBISCUS	1	4	7	400	3
CAPE-HONEYSUCKLE	1	7	6	634	4
HEBE	46	11	5	--	--
PYRACANTHA	10	8	5	291	2
TUTTLE NATAL PLUM	10	8	5	160	1
OLEANDER	9	7	5	232	1
PODOCARPUS SHRUB	5	4	3	236	1
BIRD OF PARADISE	16	5	2	--	--
GLOSSY PRIVET	1	2	2	230	a
POINSETTIA	1	1	1	--	--
ASPARAGUS FERN	1	1	d	--	--
LEADWORT	1	1	d	646	a
PHILODENDRON	1	e	d	--	--
CAMELLIA	2	e	d	1571	a
SHRUB (unid.)	8	6	4	--	--
TOTAL	373	368	408	NA	260

TABLE B-20 (continued) - 2

COMMON NAME	NUMBER OF SPECIMENS	AREA sq m	VOL cu m	LEAF MASS CONSTANT g/cu m	LEAF MASS kg
LAWNS & GRASSES					
GRASS (unid.)	44	2195	NA	NA	NA
TOTAL	44	2195	NA	NA	NA
GROUND COVER					
IVY	16	1509	NA	NA	NA
AFRICAN DAISY	12	1010	NA	NA	NA
LILY	42	8	NA	NA	NA
CREEPING CHARLEY	2	7	NA	NA	NA
MIXED FLOWERS	3	4	NA	NA	NA
GERANIUM	5	4	NA	NA	NA
JADE PLANT	4	2	NA	NA	NA
TOTAL	84	2544	NA	NA	NA

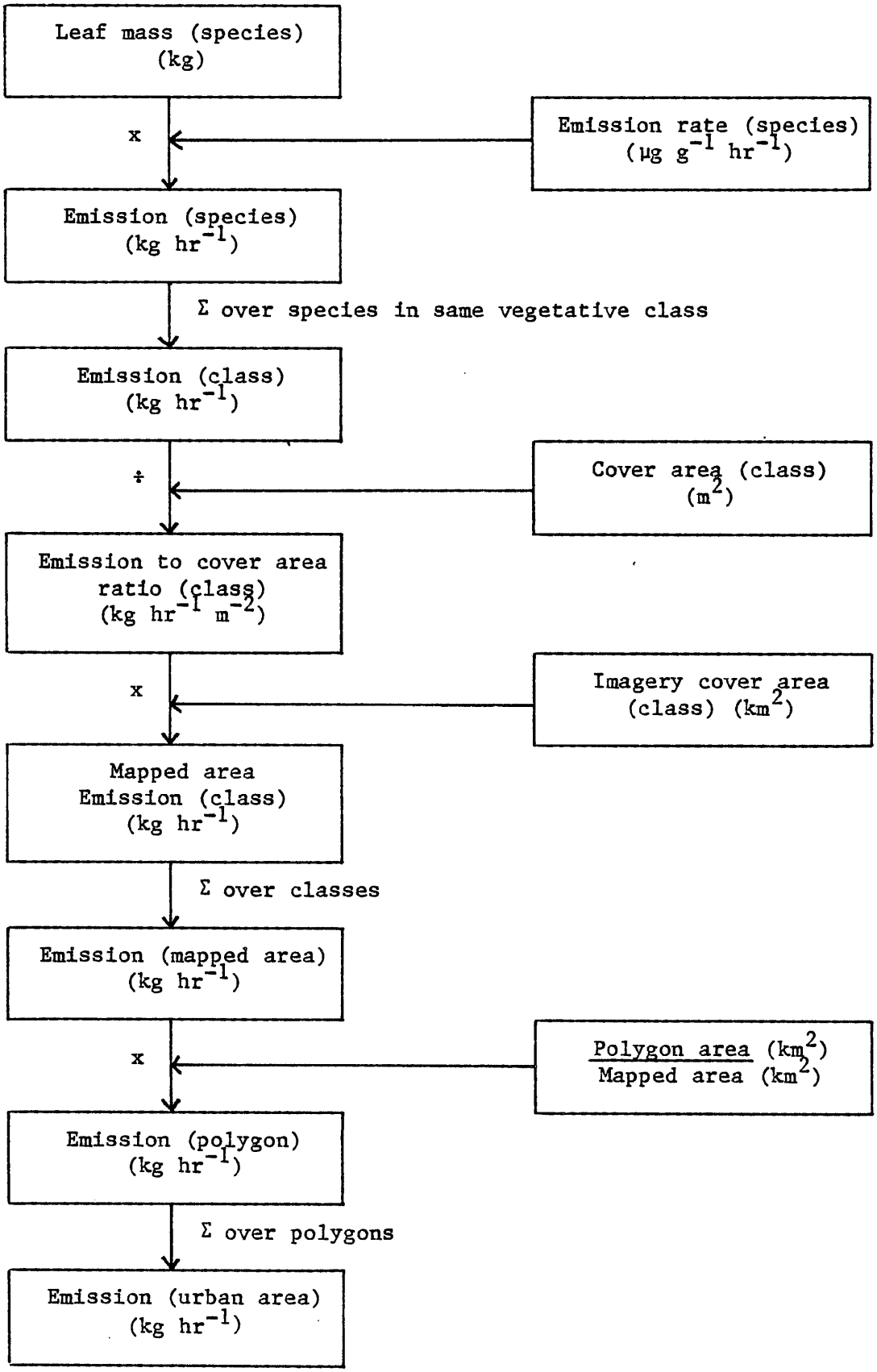
a < 0.5 kg
b Number of fronds
c g/frond
d < 0.5 cu m
e < 0.5 sq m

NA Not applicable
-- Not measured

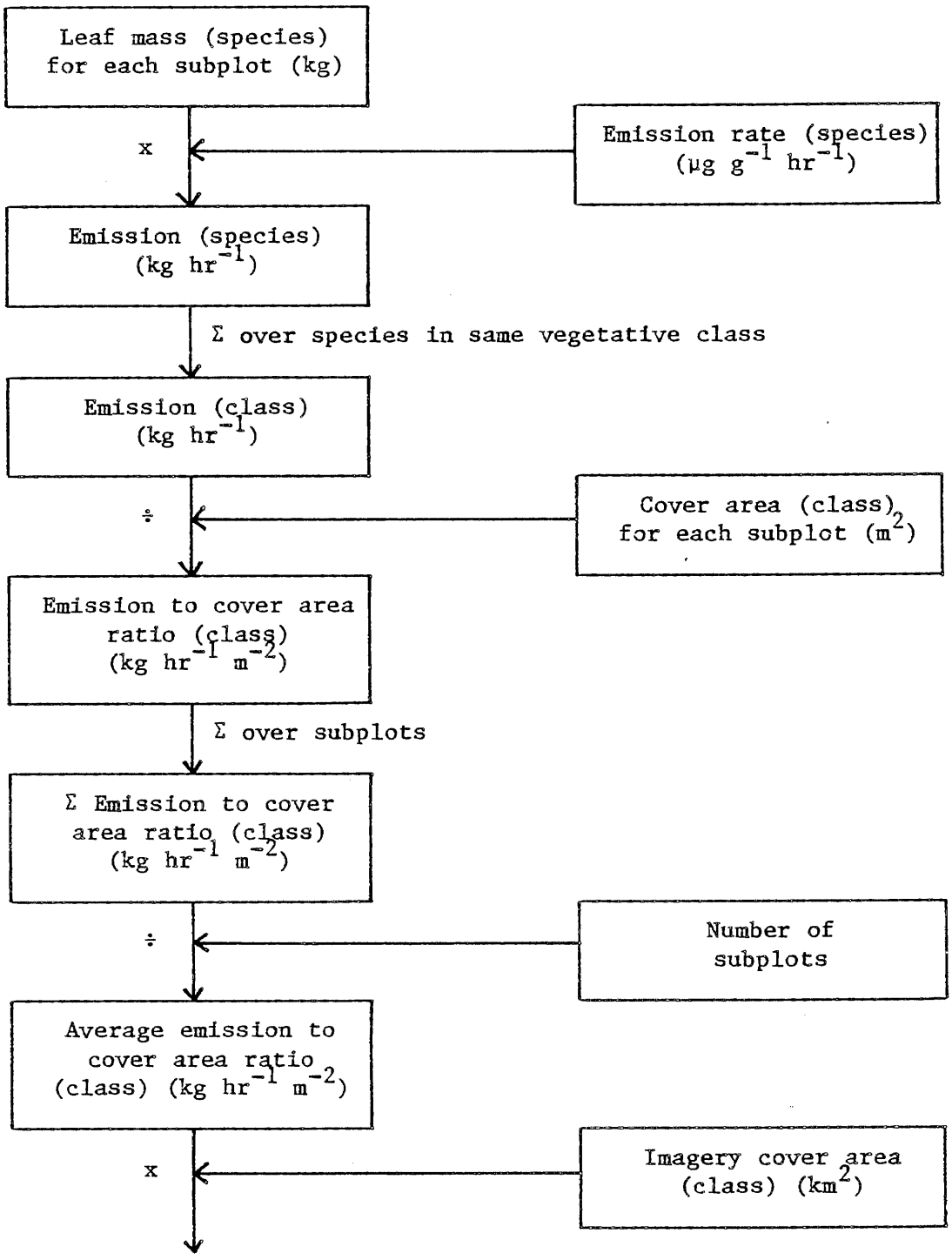
APPENDIX C

Flow Charts for Thirteen Methods Used to Calculate Total Emissions of Isoprene and Selected Monoterpenes in the Urban Portion of the Study Area

METHOD #1

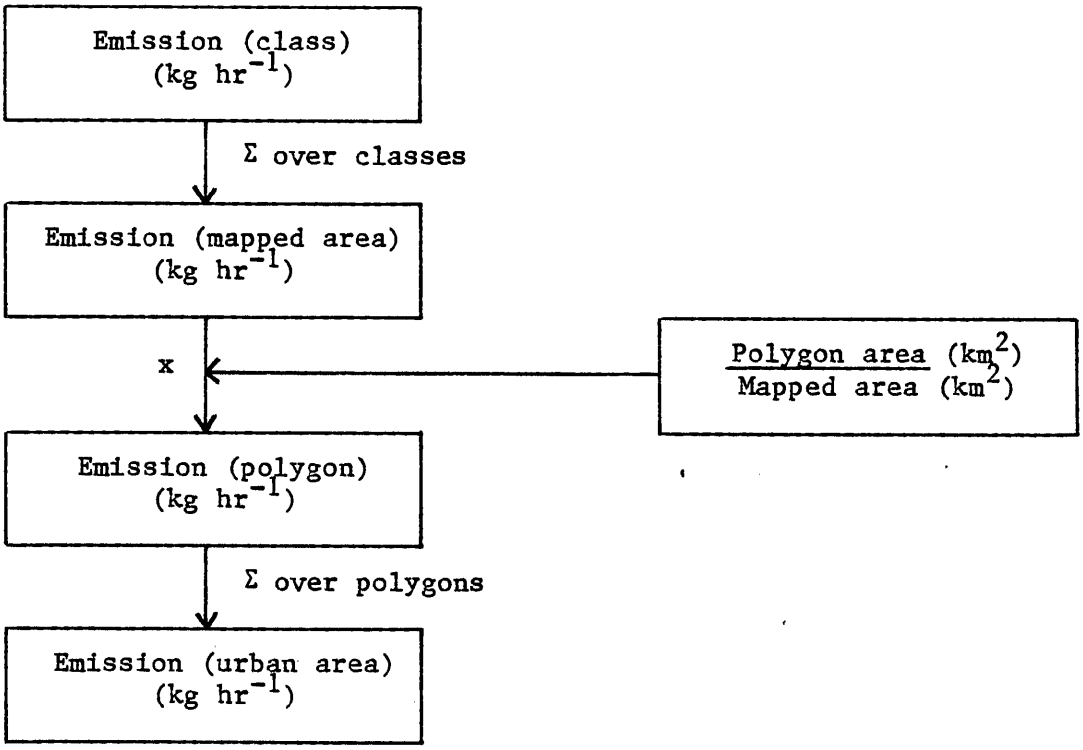

Leaf mass (species) (kg)
x
Emission rate (species) (μg g^{-1} hr^{-1})
Emission (species) (kg hr^{-1})
Σ over species in same vegetative class
Emission (class) (kg hr^{-1})
÷
Cover area (class) (m^2)
Emission to cover area ratio (class) (kg hr^{-1} m^{-2})
x
Imagery cover area (class) (km^2)
Mapped area Emission (class) (kg hr^{-1})
Σ over classes
Emission (mapped area) (kg hr^{-1})
x
Polygon area (km^2) / Mapped area (km^2)
Emission (polygon) (kg hr^{-1})
Σ over polygons
Emission (urban area) (kg hr^{-1})

METHOD #2

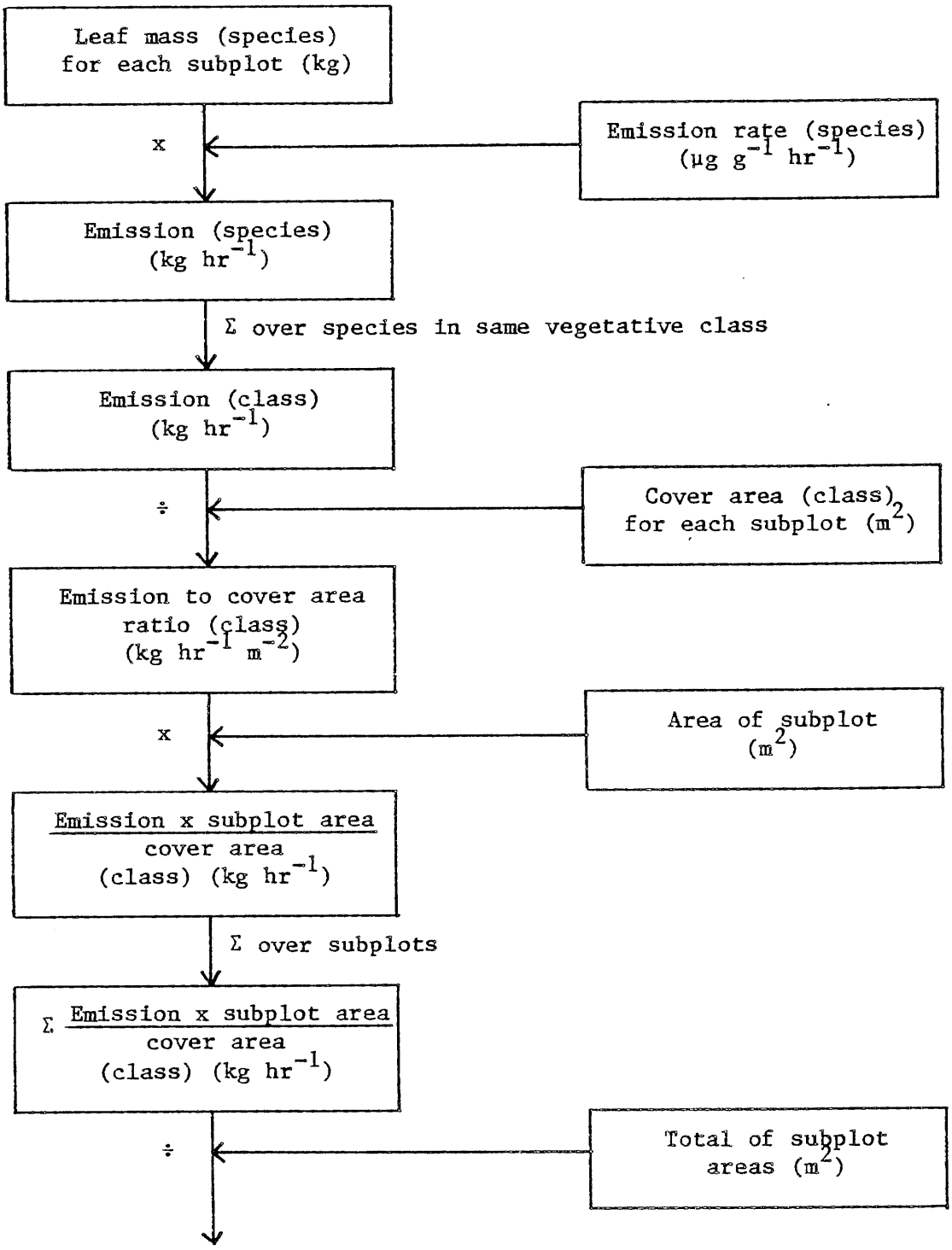


(continued)

METHOD #2 (continued)



METHOD #3



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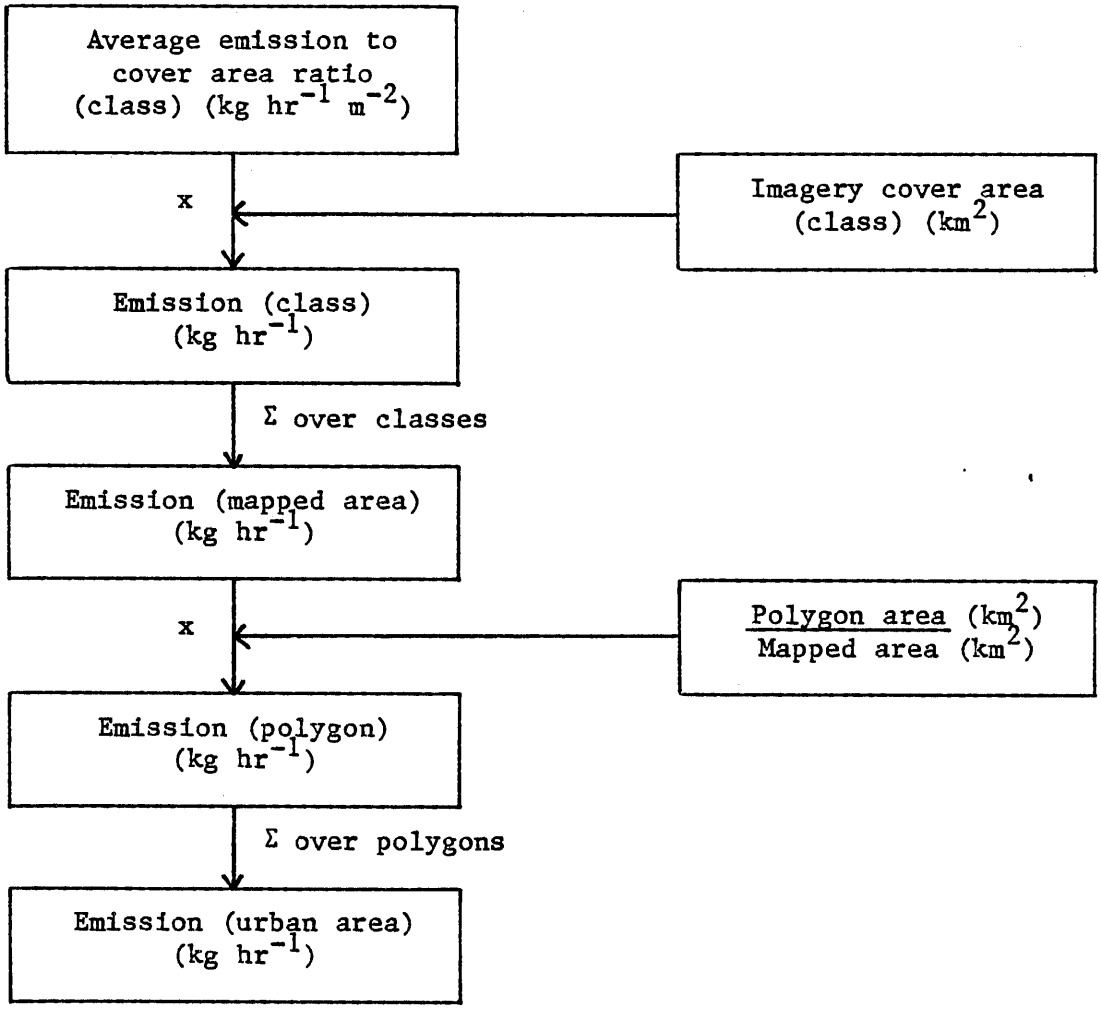
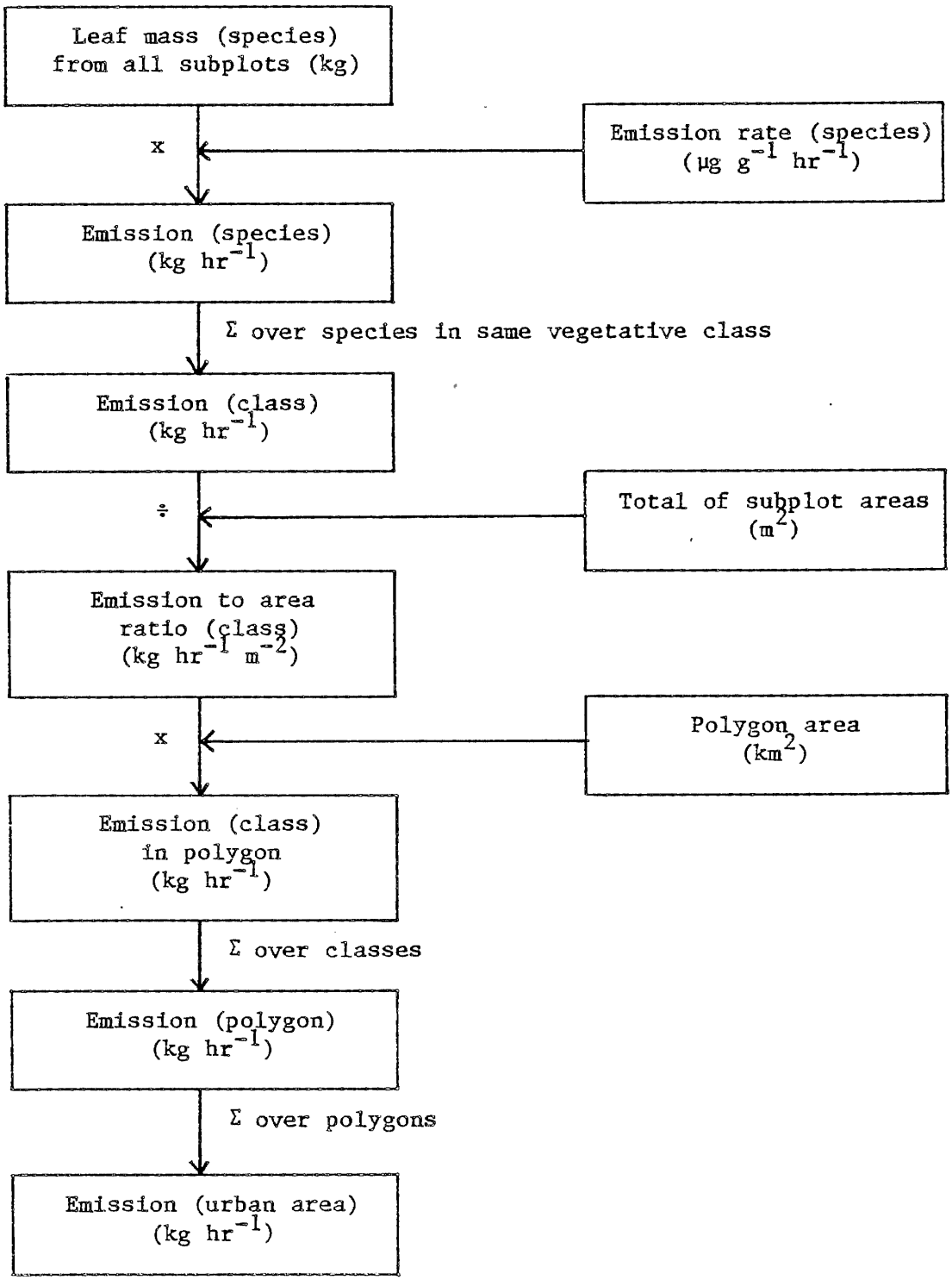
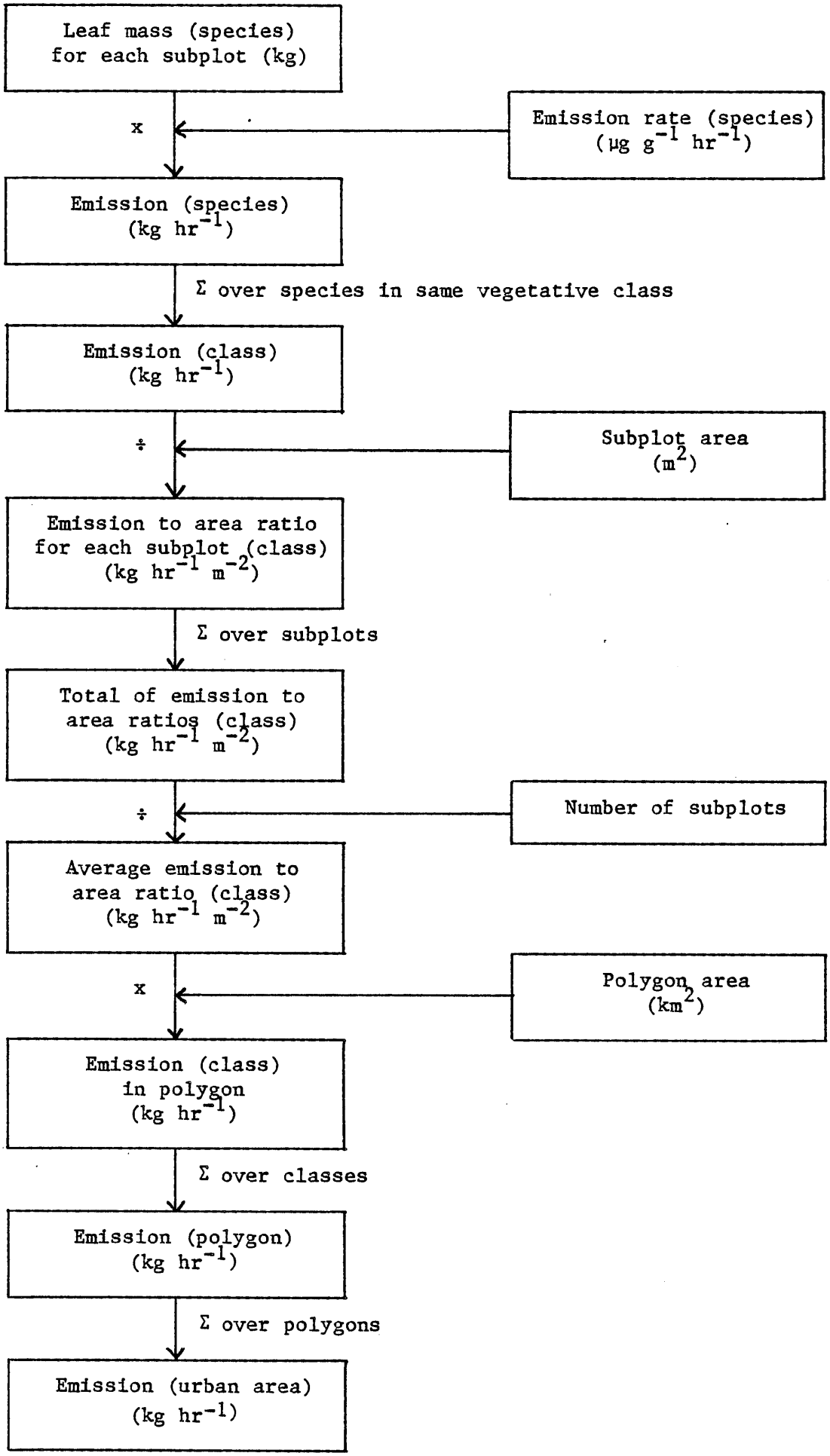
METHOD #3 (continued)



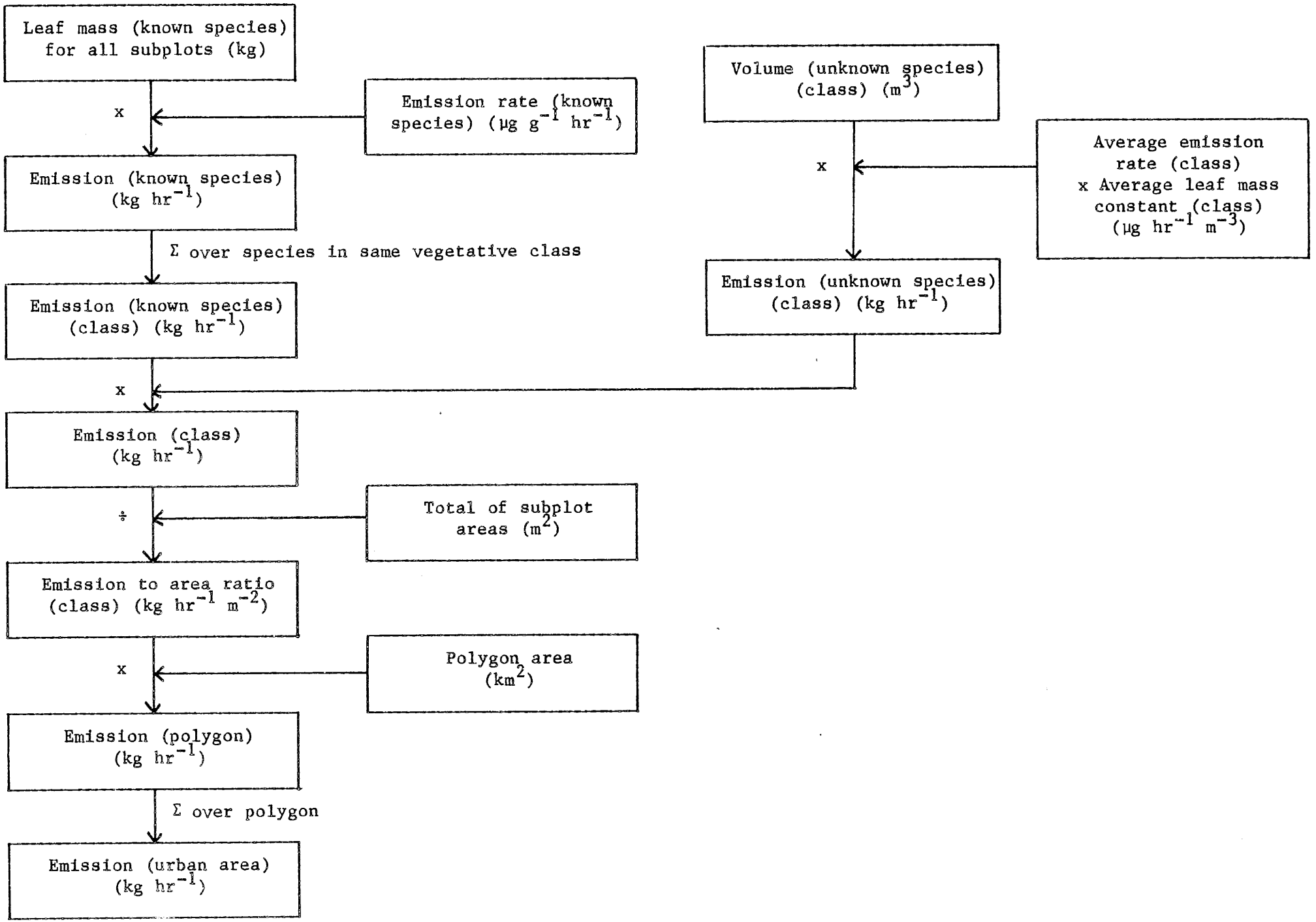
METHOD #4


Leaf mass (species) from all subplots (kg)
x
Emission rate (species) (μg g^{-1} hr^{-1})
Emission (species) (kg hr^{-1})
Σ over species in same vegetative class
Emission (class) (kg hr^{-1})
÷
Total of subplot areas (m^2)
Emission to area ratio (class) (kg hr^{-1} m^{-2})
x
Polygon area (km^2)
Emission (class) in polygon (kg hr^{-1})
Σ over classes
Emission (polygon) (kg hr^{-1})
Σ over polygons
Emission (urban area) (kg hr^{-1})

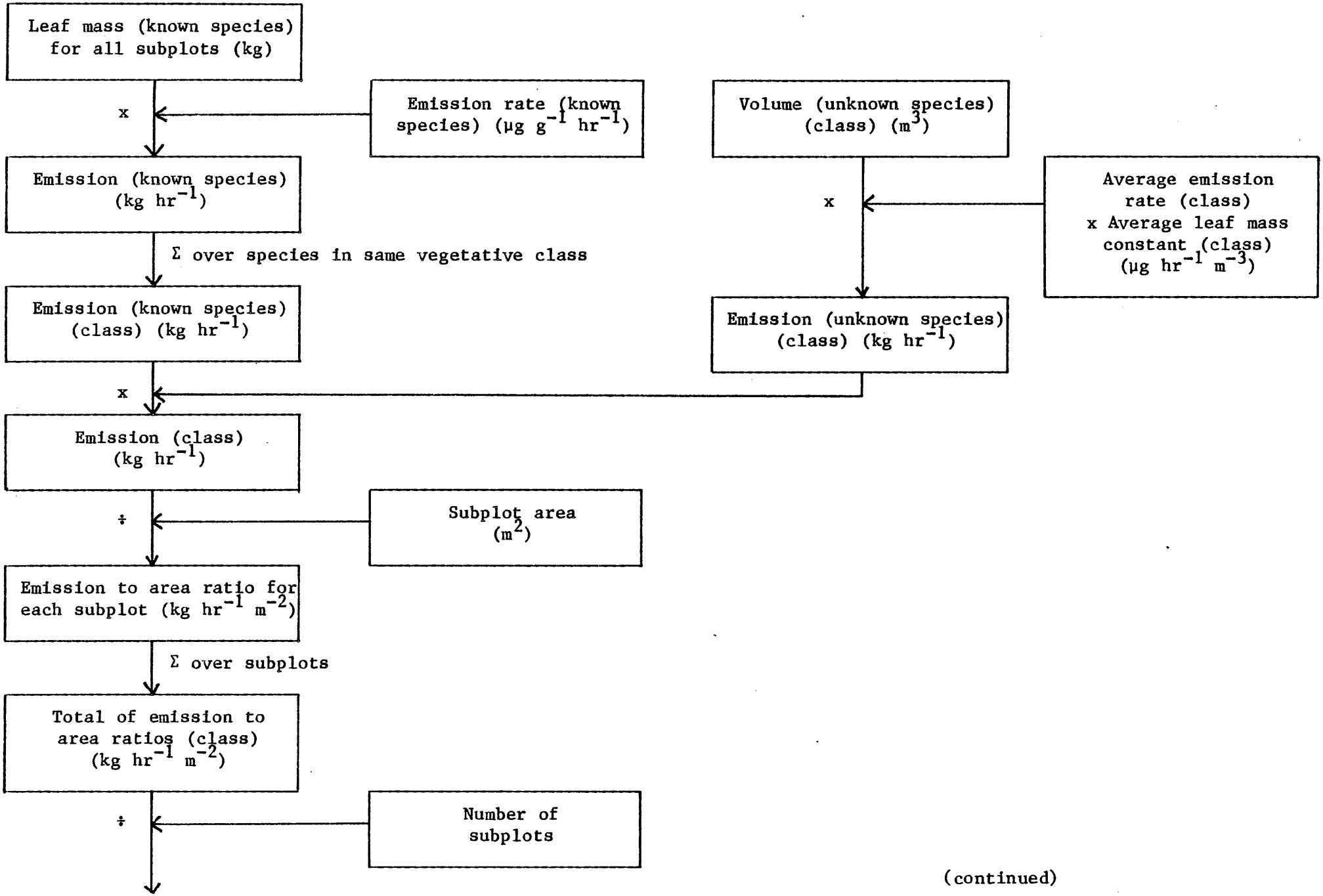
METHOD #5


Leaf mass (species) for each subplot (kg)
x
Emission rate (species) (μg g^{-1} hr^{-1})
Emission (species) (kg hr^{-1})
Σ over species in same vegetative class
Emission (class) (kg hr^{-1})
÷
Subplot area (m^2)
Emission to area ratio for each subplot (class) (kg hr^{-1} m^{-2})
Σ over subplots
Total of emission to area ratios (class) (kg hr^{-1} m^{-2})
÷
Number of subplots
Average emission to area ratio (class) (kg hr^{-1} m^{-2})
x
Polygon area (km^2)
Emission (class) in polygon (kg hr^{-1})
Σ over classes
Emission (polygon) (kg hr^{-1})
Σ over polygons
Emission (urban area) (kg hr^{-1})

METHOD #6


Leaf mass (known species) for all subplots (kg)
x
Emission rate (known species) (μg g^{-1} hr^{-1})
Emission (known species) (kg hr^{-1})
Σ over species in same vegetative class
Emission (known species) (class) (kg hr^{-1})
Volume (unknown species) (class) (m^3)
x
Average emission rate (class) x Average leaf mass constant (class) (μg hr^{-1} m^{-3})
Emission (unknown species) (class) (kg hr^{-1})
x
Emission (class) (kg hr^{-1})
÷
Total of subplot areas (m^2)
Emission to area ratio (class) (kg hr^{-1} m^{-2})
x
Polygon area (km^2)
Emission (polygon) (kg hr^{-1})
Σ over polygon
Emission (urban area) (kg hr^{-1})

METHOD #7



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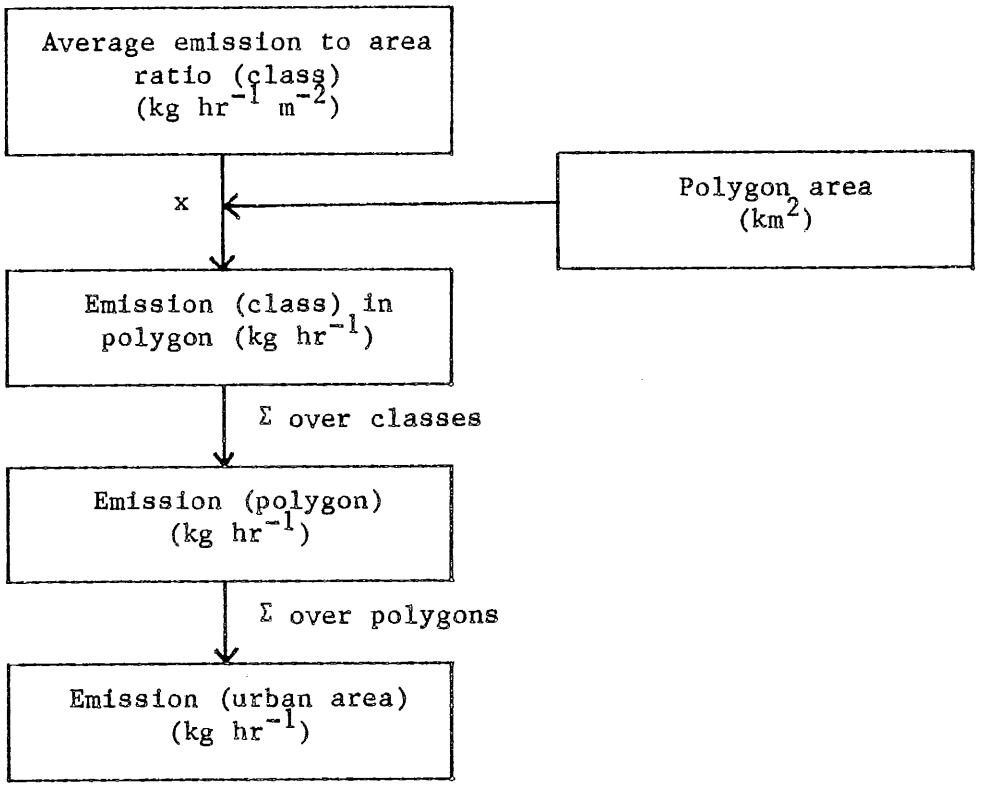
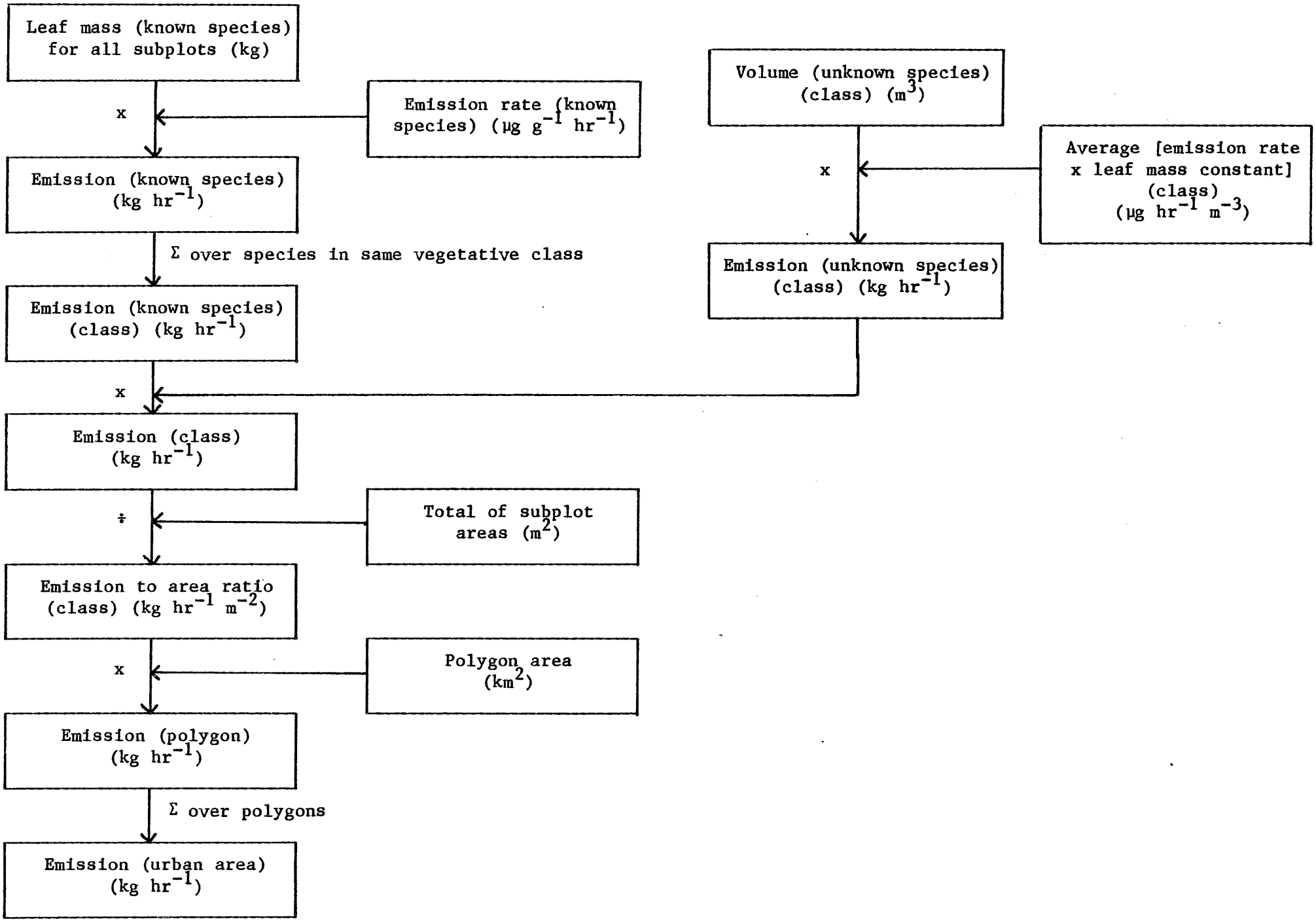
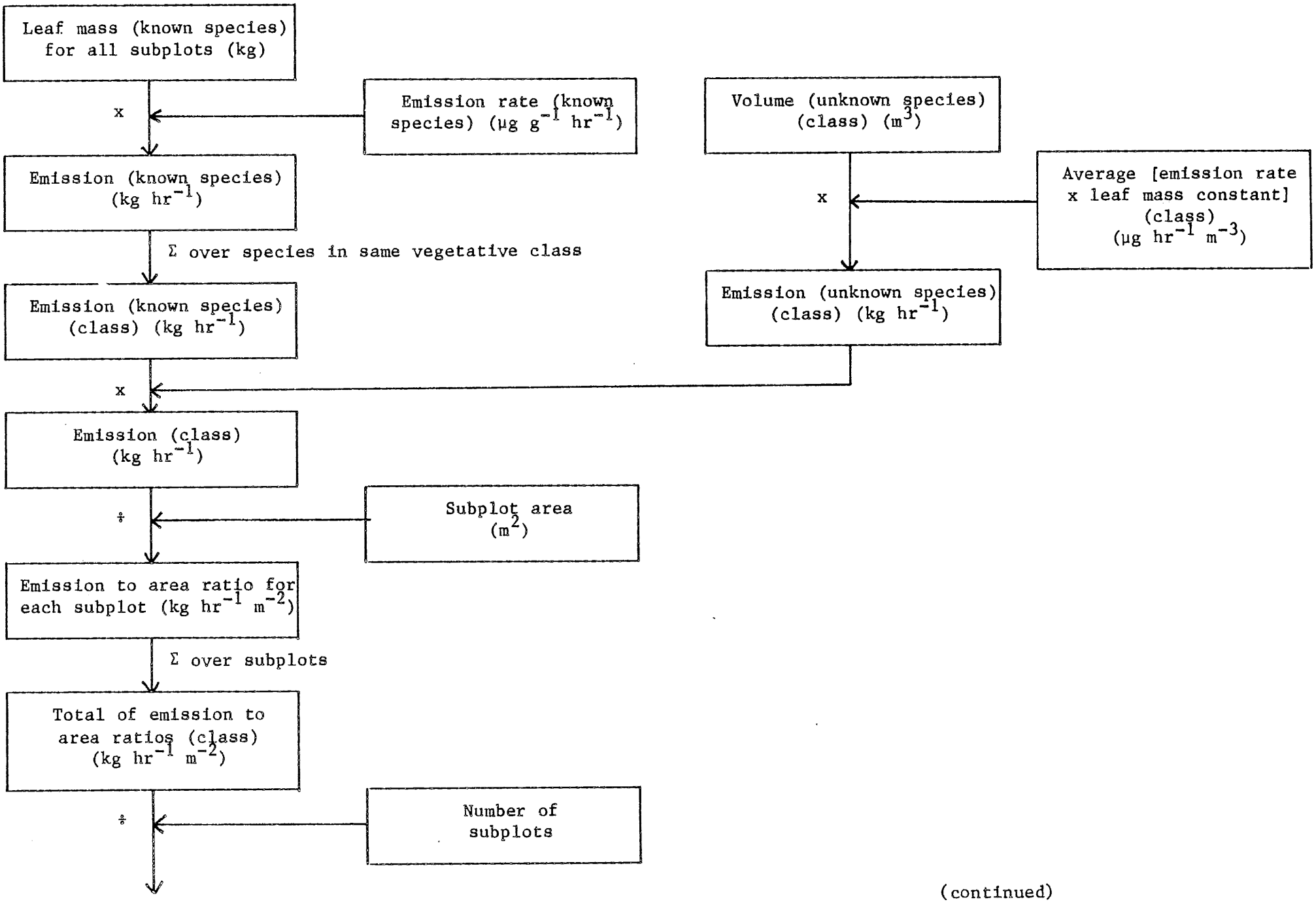
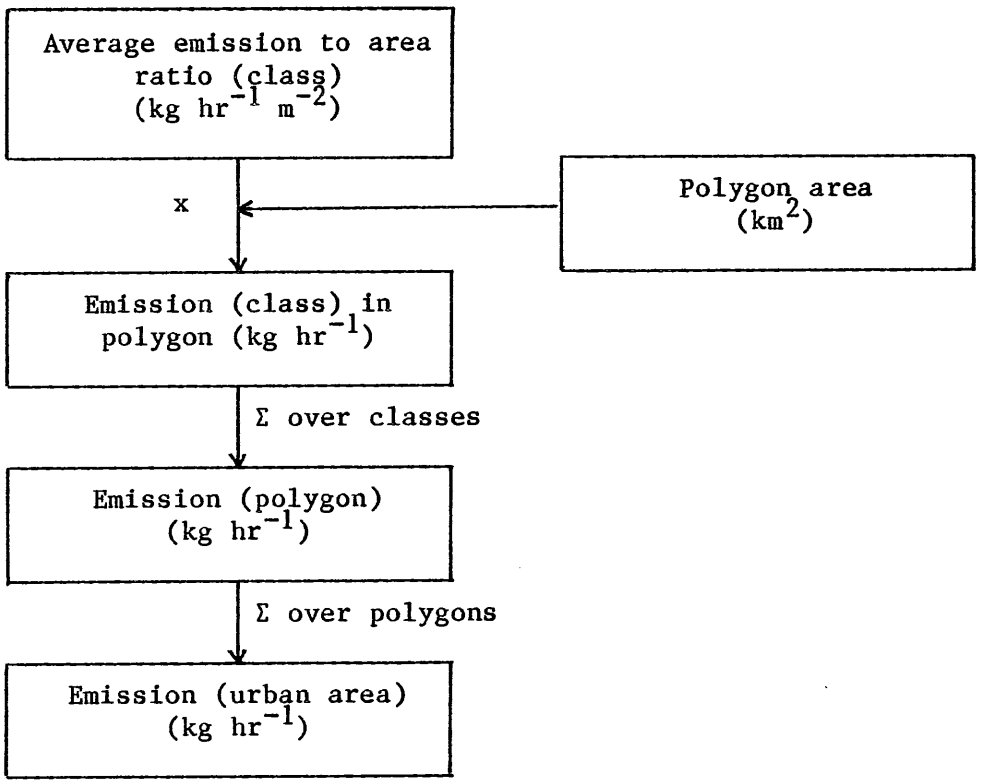

Average emission to area ratio (class) (kg hr^{-1} m^{-2})
x
Polygon area (km^2)
Emission (class) in polygon (kg hr^{-1})
Σ over classes
Emission (polygon) (kg hr^{-1})
Σ over polygons
Emission (urban area) (kg hr^{-1})

METHOD #8

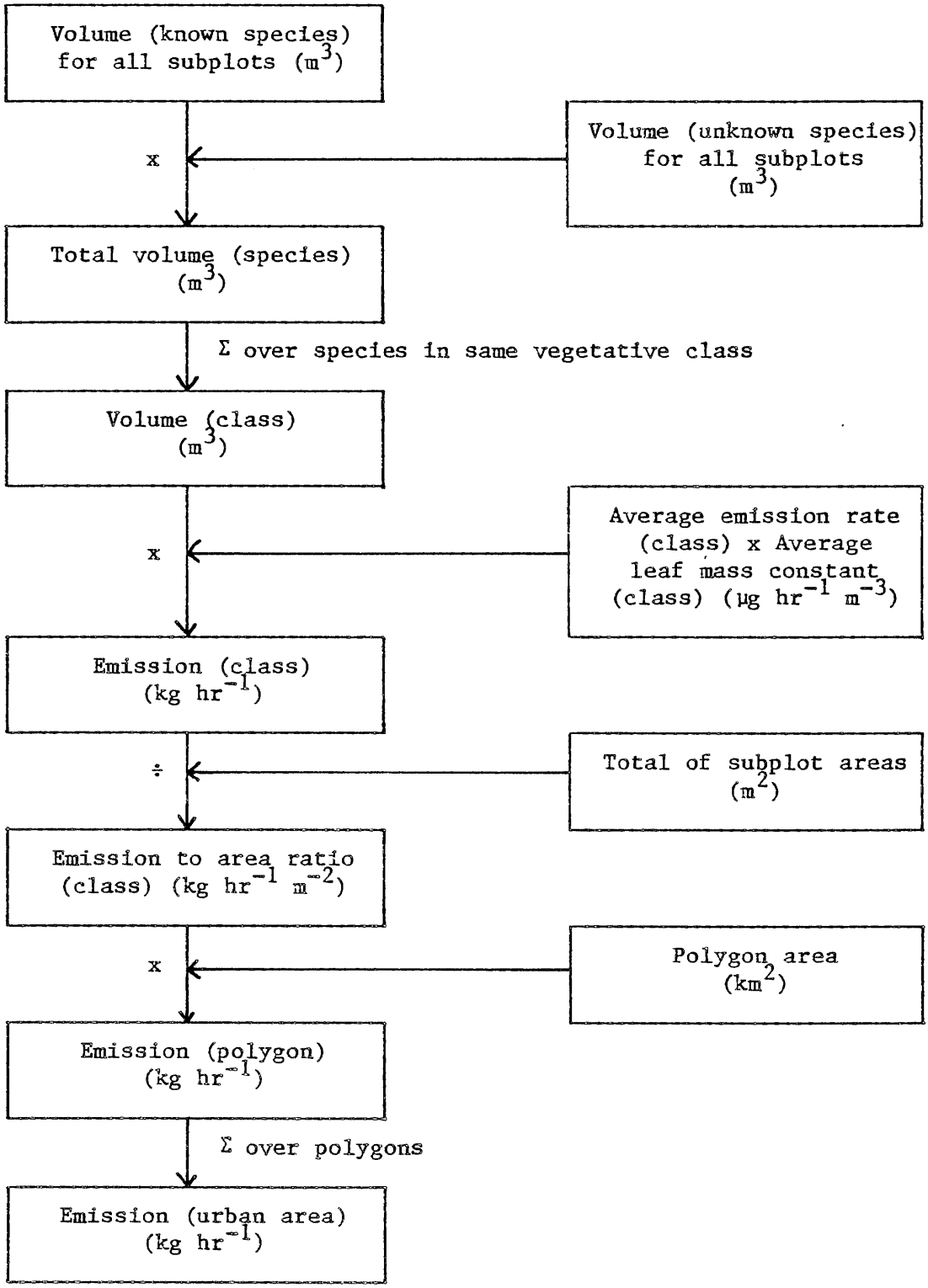

Leaf mass (known species) for all subplots (kg)
x
Emission rate (known species) (μg g^{-1} hr^{-1})
Emission (known species) (kg hr^{-1})
Σ over species in same vegetative class
Emission (known species) (class) (kg hr^{-1})
Volume (unknown species) (class) (m^3)
x
Average [emission rate x leaf mass constant] (class) (μg hr^{-1} m^{-3})
Emission (unknown species) (class) (kg hr^{-1})
x
Emission (class) (kg hr^{-1})
÷
Total of subplot areas (m^2)
Emission to area ratio (class) (kg hr^{-1} m^{-2})
x
Polygon area (km^2)
Emission (polygon) (kg hr^{-1})
Σ over polygons
Emission (urban area) (kg hr^{-1})


Leaf mass (known species) for all subplots (kg)
x
Emission rate (known species) (μg g^{-1} hr^{-1})
Emission (known species) (kg hr^{-1})
Σ over species in same vegetative class
Emission (known species) (class) (kg hr^{-1})
Volume (unknown species) (class) (m^3)
x
Average [emission rate x leaf mass constant] (class) (μg hr^{-1} m^{-3})
Emission (unknown species) (class) (kg hr^{-1})
x
Emission (class) (kg hr^{-1})
÷
Subplot area (m^2)
Emission to area ratio for each subplot (kg hr^{-1} m^{-2})
Σ over subplots
Total of emission to area ratios (class) (kg hr^{-1} m^{-2})
÷
Number of subplots

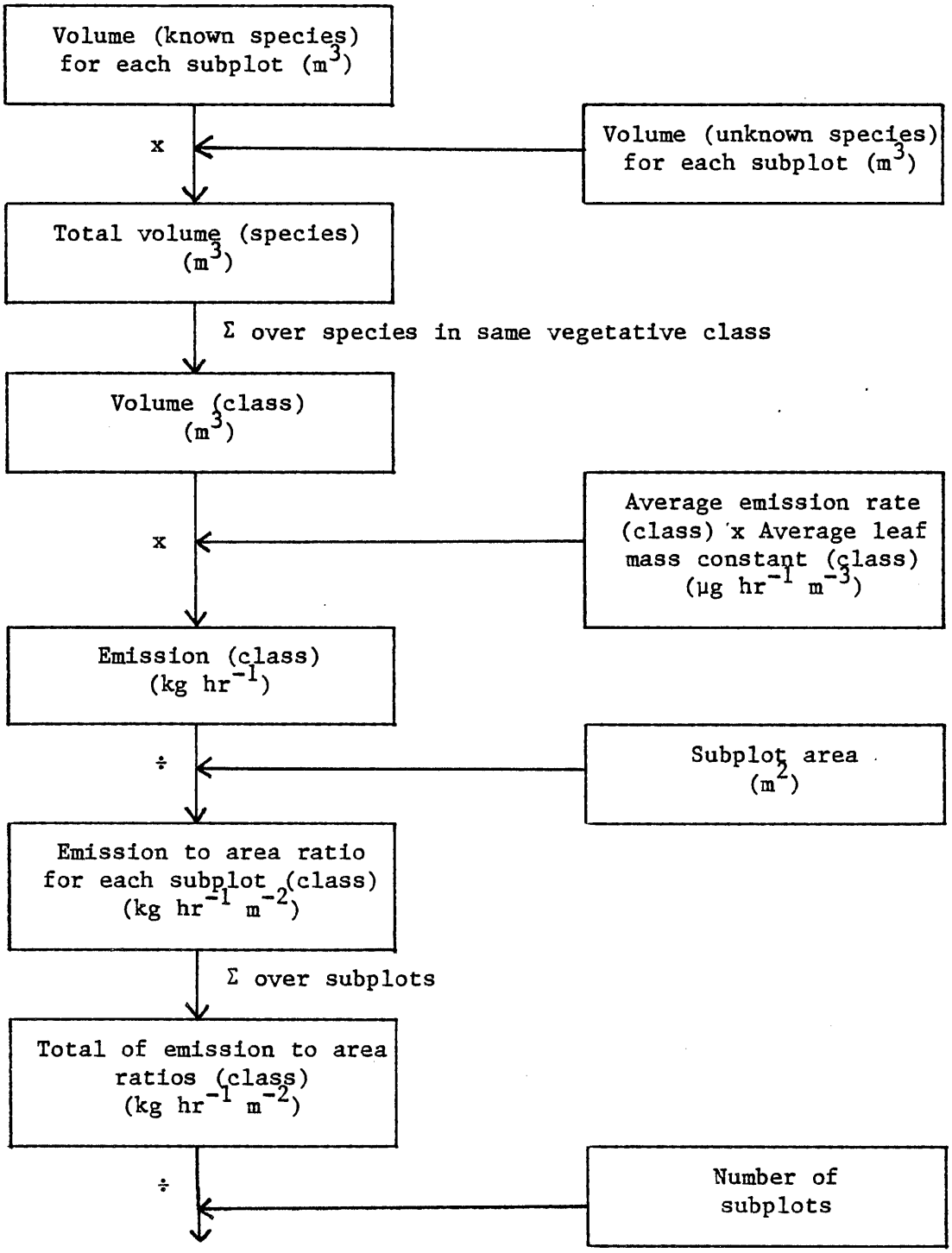
(continued)


Average emission to area ratio (class) (kg hr^{-1} m^{-2})
x
Polygon area (km^2)
Emission (class) in polygon (kg hr^{-1})
Σ over classes
Emission (polygon) (kg hr^{-1})
Σ over polygons
Emission (urban area) (kg hr^{-1})

METHOD #10

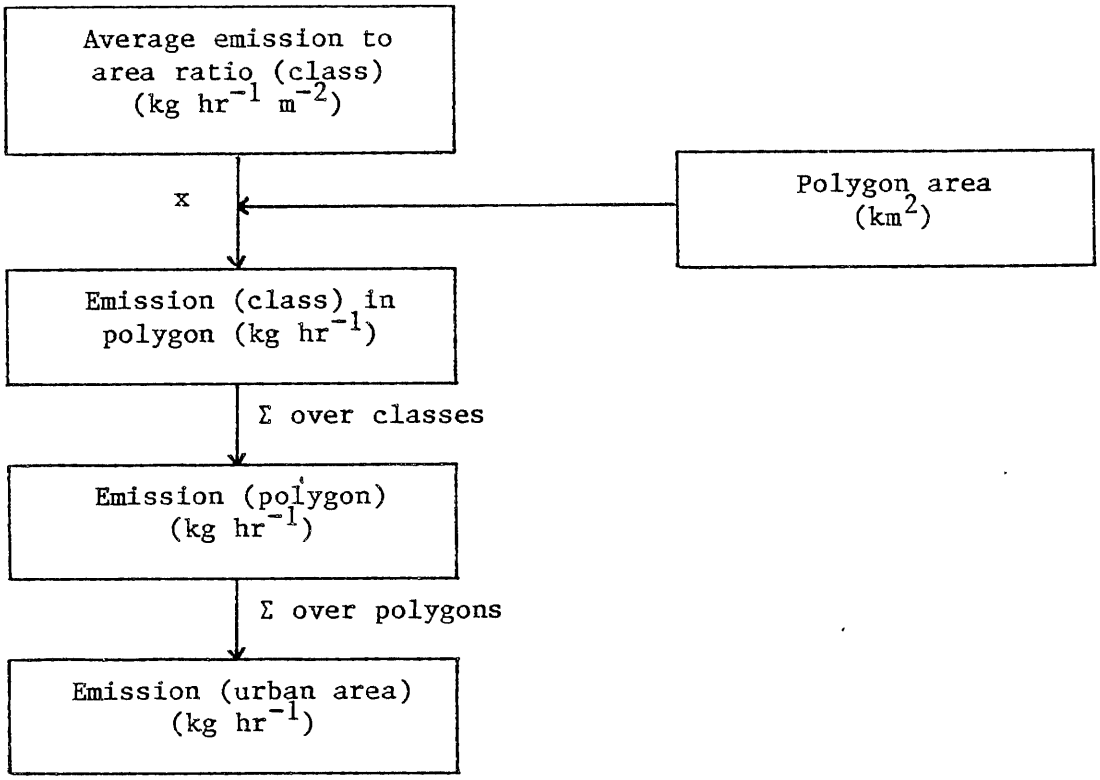

Volume (known species) for all subplots (m^3)
x
Volume (unknown species) for all subplots (m^3)
Total volume (species) (m^3)
Σ over species in same vegetative class
Volume (class) (m^3)
x
Average emission rate (class) x Average leaf mass constant (class) ($\mu g\ hr^{-1}\ m^{-3}$)
Emission (class) ($kg\ hr^{-1}$)
÷
Total of subplot areas (m^2)
Emission to area ratio (class) ($kg\ hr^{-1}\ m^{-2}$)
x
Polygon area (km^2)
Emission (polygon) ($kg\ hr^{-1}$)
Σ over polygons
Emission (urban area) ($kg\ hr^{-1}$)

METHOD #11

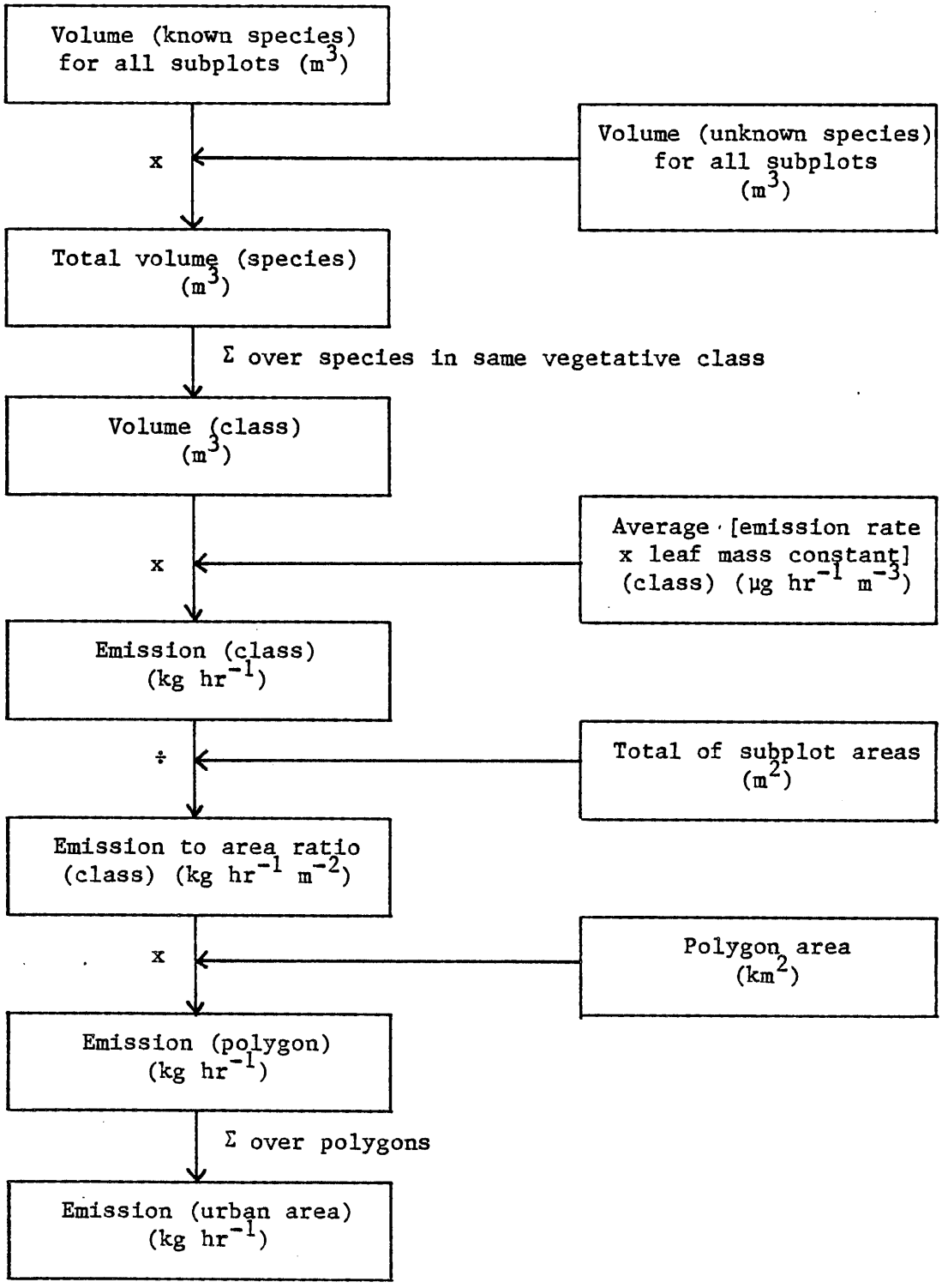


(continued)

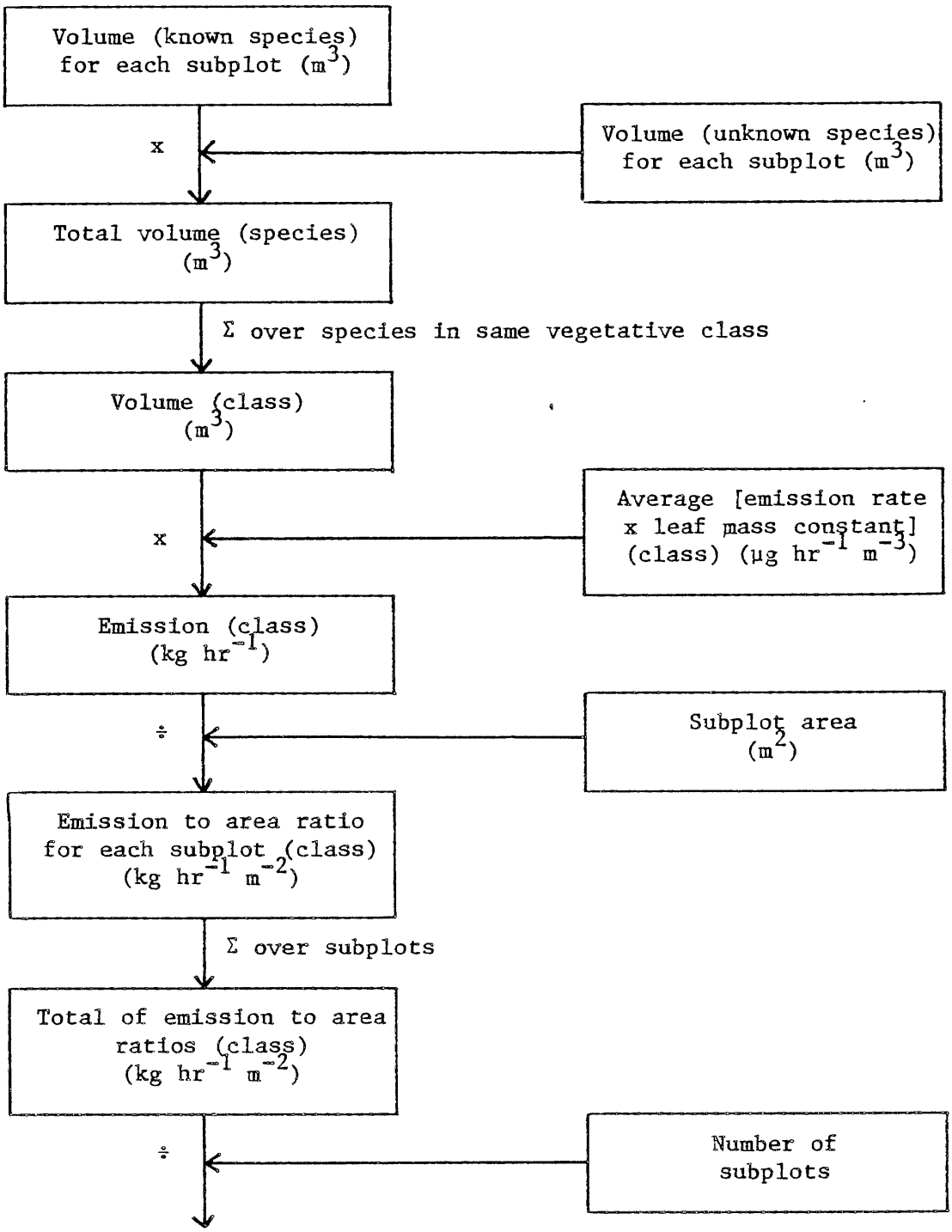
METHOD #11 (continued)



METHOD #12

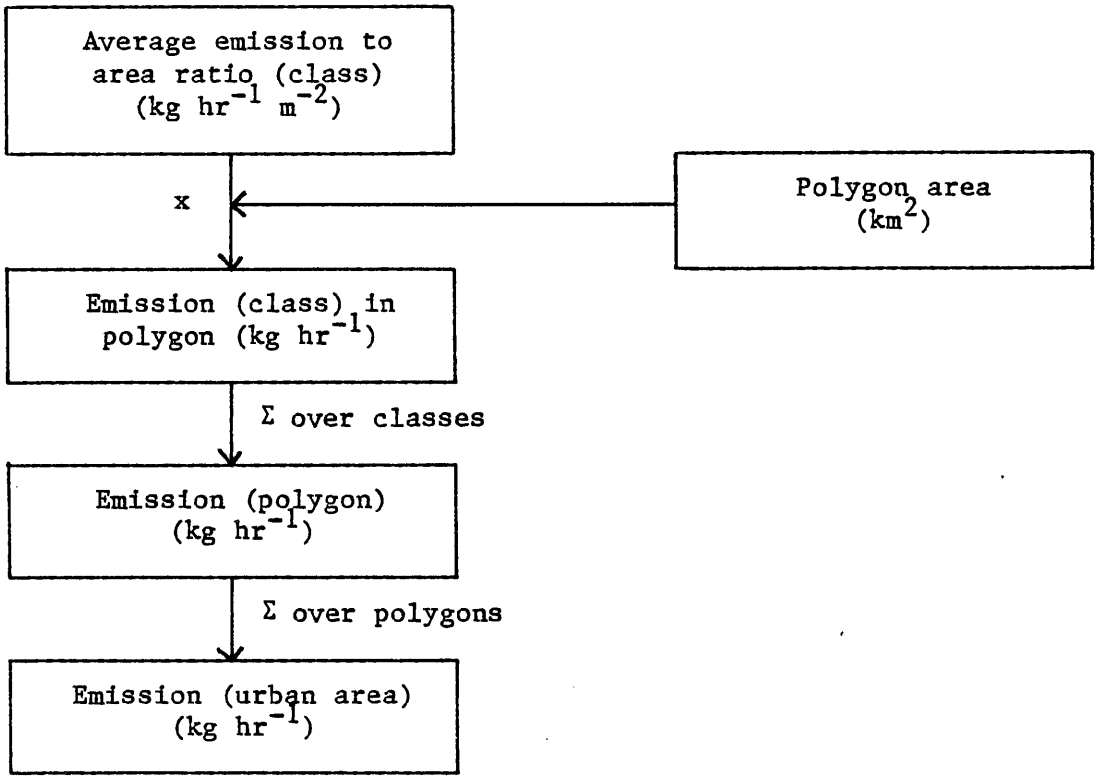

Volume (known species) for all subplots (m^3)
x
Volume (unknown species) for all subplots (m^3)
Total volume (species) (m^3)
Σ over species in same vegetative class
Volume (class) (m^3)
x
Average [emission rate x leaf mass constant] (class) ($\mu g\ hr^{-1}\ m^{-3}$)
Emission (class) ($kg\ hr^{-1}$)
÷
Total of subplot areas (m^2)
Emission to area ratio (class) ($kg\ hr^{-1}\ m^{-2}$)
x
Polygon area (km^2)
Emission (polygon) ($kg\ hr^{-1}$)
Σ over polygons
Emission (urban area) ($kg\ hr^{-1}$)

METHOD #13



(continued)

METHOD #13 (continued)



APPENDIX D

Availability of Emissions by UTM Grid System Cells

This program encompassed an urban study area divided into 20 polygons plus 5 regions with natural vegetation. The emissions (kg hr^{-1}) of selected hydrocarbons were calculated and reported for each of these 25 regions. However, emissions as reported for these irregularly shaped areas are not readily suitable for modeling applications. Therefore, we decided to also provide the emissions on the basis of a standard grid system.

The selected grid system is that used by the California ARB. It is based on the Universal Transverse Mercator (UTM) system with grid cells 5 kilometers on a side. The cells were assigned X and Y index numbers. The indices increase in the eastwardly and northwardly directions. The SCAQMD/SCAG used this same grid system in the Air Quality Management Plan, 1982 Revision with slightly transformed cell index numbers.

$$X_{(SCAQMD)} = X_{(ARB)} - 35 \qquad Y_{(SCAQMD)} = Y_{(ARB)} - 5$$

The 5 kilometer by 5 kilometer UTM grid was overlaid on our study area of polygons and natural vegetation regions. Each polygon and each natural vegetation region was considered to be homogeneous. Therefore, all grid cells falling in polygon i were assigned the emissions of polygon i. Where a grid cell included a border between polygons, say polygon i and polygon j, the percentage of the cell belonging to polygon i and the percentage of the cell belonging to polygon j were calculated by digitizing the respective parts of the grid cell. The emission of the cell was then

$$\frac{\text{(Emission polygon i) x (\% area in polygon i) + (Emission polygon j) x (\% area in polygon j)}}{100\%}$$

Some cells contained areas from more than two polygons as well as some non-vegetative areas. The emission for the cell was calculated in the same way, by taking a weighted average of the emissions of the polygons involved in the grid cell. Non-vegetative areas were considered to have no emissions. The contribution of the emission by each polygon was weighted by the proportion of its area in the cell.

The grid emissions will be available in table form or on magnetic tape. Each record will consist of the X and Y grid cell index numbers as referenced by the ARB, followed by the daytime emission (kg hr^{-1}) of isoprene, the daytime emission of selected monoterpenes and the nighttime emission of the monoterpenes. The daytime emissions are for 30°C and the nighttime emissions are for 25°C.

In this report many methods were used to calculate emissions resulting in many sets of emission values. Two sets of emissions will be made available: a set of "lower limit" emissions (corresponding to ~30 tons day), and a set of "upper limit" emissions (corresponding to ~80 tons day^{-1}).