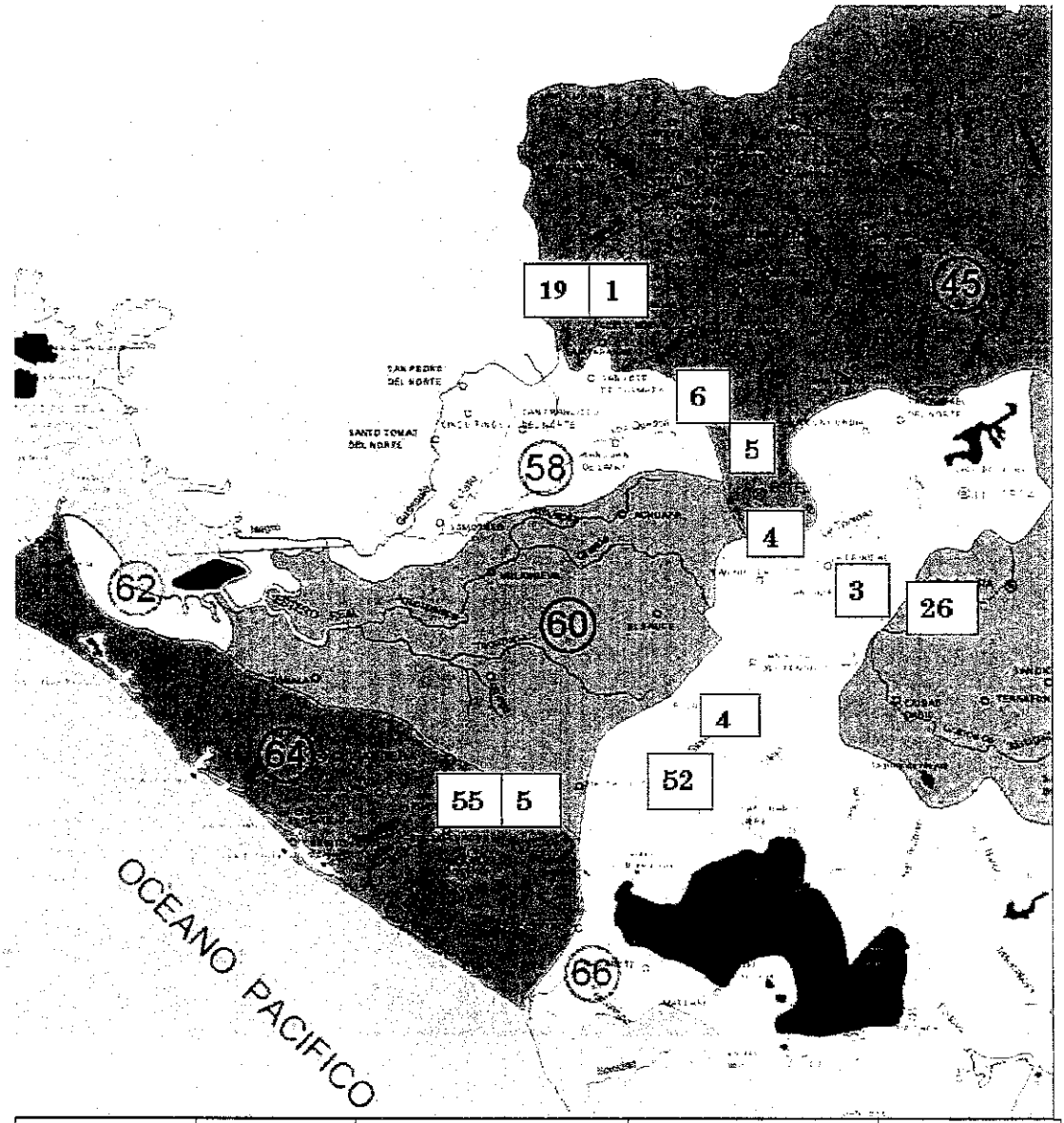
Apéndice 3

Datos Hidrológicos

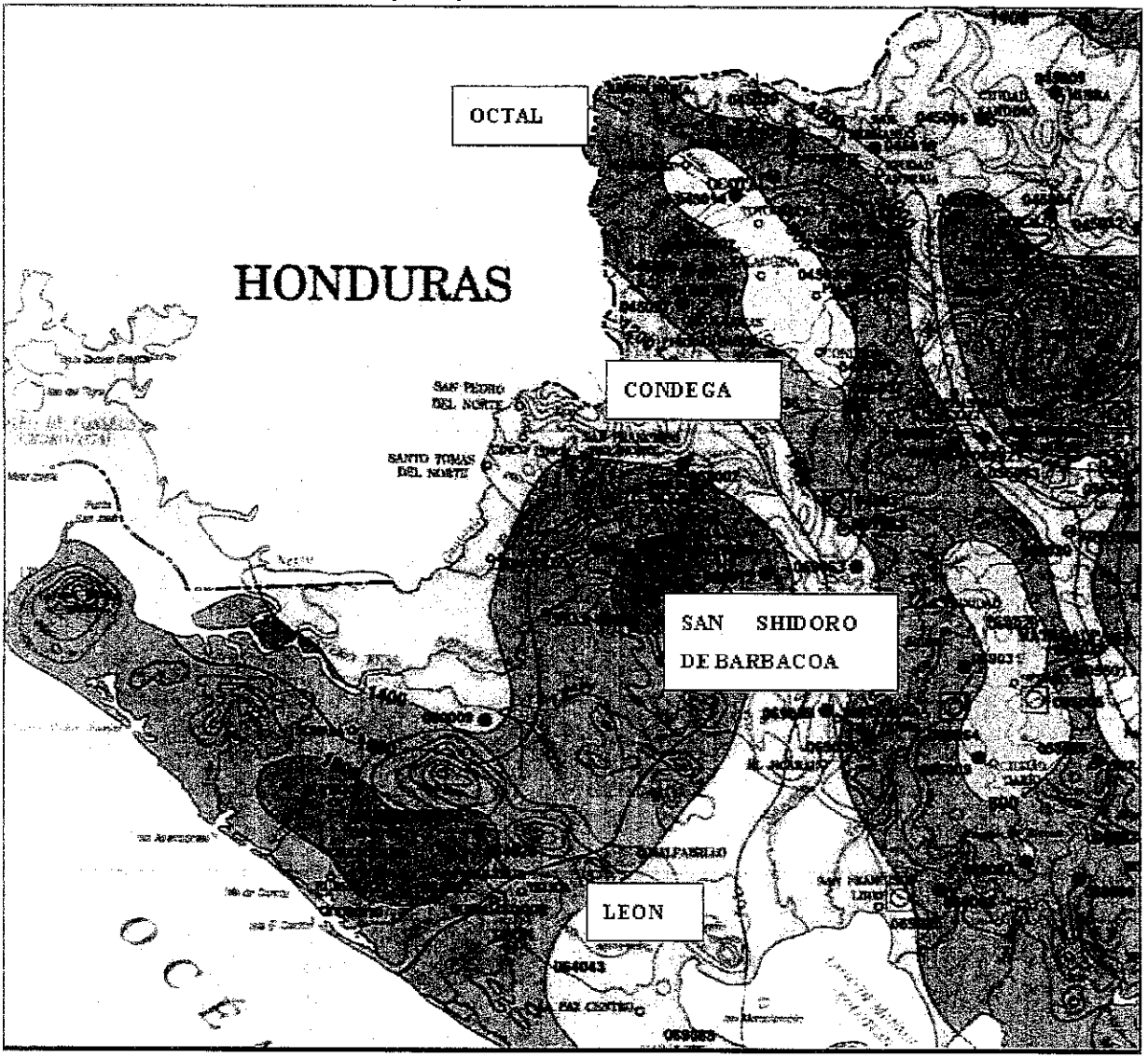
Apéndice A3.1 Mapa de la Cuenca y Ubicación del Sitio de Estudio



Ruta	No. de Serie	Punto desde Managua	Nombre de Puente	Nota
NIC.1	3	113.19 km	El Junquillal	Via Sebaco
-Ditto-	4	135.64	San Nicolas	-Ditto-
-Ditto-	5	150.33	Las Chanillas	-Ditto-
-Ditto-	6	151.85	San Ramón	-Ditto-
-Ditto-	18	226.89	Río Inalí	-Ditto-
-Ditto-	19	223.25	RíoTapacalí	-Ditto-
NIC.3	26	119.05	El Guayacan	Via Sebaco
NIC.26	45	170.952	La Banderita	Via Leon
-Ditto-	52	156.785	San Juan de Dios	-Ditto-
-Ditto-	54	108.154	Papalón	-Ditto-
-Ditto-	55	107.533	Solís	-Ditto-

Figura Mapa de la Cuenca y Ubicación del Sitio de Estudio

Apéndice A3.2 Mapa de Isoyetasy Ubicación de Estaciones



Nombre de Estación	Código ID	Duración de Registro	Número de Cuenca
Condega	45003	1958-2001	45
Ocotal	45017	1985-2000	45
Leon	64043	1974-2002	64
San Isidro de Barbacoa	69029	1958-2000	69

Figura Mapa de Isoyetas y Ubicación de Estaciones

Apéndice A3.3 Dato de Precipitación

Tabla Dato de Precipitación Ocotal

Metorological Station : OCOTAL
Code No.: 45017
***Parameter* : PRECIPITATION**
Period : 1980-2000

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1980	0	1	1.2	3.3	273.8	190.5	96.8	61.1	190.3	337.1	51.6	1.6	1208.3
1981	1.6	2.6	6.4	3.9	254.7	281	46.5	250	153.5	61.6	4.5	12.7	1079.0
1982	5.9	0.8	0.9	41.4	248.4	204.7	49	46.6	117.6	91.5	11	2.4	820.2
1983	0.1	2.3	0.1	33.6	181.3	228.5	47.6	79.1	99.6	139.3	73.6	9.4	894.5
1984	7.2	4.5	79.5	55	48.3	125.2	106.9	145.8	316.4	66	4.5	3.2	962.5
1985	1.8	2.7	2.6	49.5	188.2	84.2	92.6	62.5	98.4	96.6	29.8	10.5	719.4
1986	0.8	0	0	0.5	231.3	177.7	49.5	41.6	67.2	92.1	16.4	4.5	681.6
1987	3.9	0.8	11.8	18.4	108.4	154.8	116.7	50.7	84.8	12.4	3.8	3	569.5
1988	0.6	6	17.3	163	196.1	131.2	88.5	258	307.2	168.6	24.40	5.91	1366.8
1989	2.43	2.30	0.4	0	17.2	73.3	39.9	112.2	216.4	33.9	25.7	10.3	534.0
1990	1.2	1.5	0.4	86	100.2	61	44.4	100.8	92.5	95.4	156.7	30.1	770.2
1991	1.3	0	1.2	1.4	188	99.8	39.1	59.4	33.8	191.5	33.3	4.52	653.3
1992	4.6	23	0.9	0.5	130.4	122.1	61.8	56.4	62.2	86.6	2.1	6.1	556.7
1993	2.3	0	11.3	70.8	256.5	120.8	43.7	84.6	269.5	53.8	2.9	1.8	918.0
1994	5.4	1.1	2.2	47.3	112.7	44.5	30.5	60.9	106.8	98.9	37.1	5.3	552.7
1995	0.8	1.8	44.2	161.3	67	148.4	45.7	288.9	169.7	153.4	14.3	14.2	1109.7
1996	2.8	0.7	1	30.7	163.7	26.4	161.3	230.7	89.6	311.3	82.8	0.2	1101.2
1997	3.6	2.6	3.7	24.6	25.6	229.2	58.4	30	157.3	140.5	21.3	0	696.8
1998	0	0	24.9	2	107.1	109.4	169.4	252.3	208.2	776.2	66.3	1.3	1717.1
1999	5.7	38.6	11.1	10.7	68.5	68.6	132.7	82.7	310.3	150.3	41.7	1.6	922.5
2000	6.4	4	0	0	61	12.1	42.3	46.6	179.6	75.1	2.2	10.2	439.5
Averaege	**2.8**	**4.6**	**10.5**	**38.3**	**144.2**	**128.3**	**74.4**	**114.3**	**158.6**	**153.9**	**33.6**	**6.6**	**870.2**
MAX	**7.2**	**38.6**	**79.5**	**163.0**	**273.8**	**281.0**	**169.4**	**288.9**	**316.4**	**776.2**	**156.7**	**30.1**	**1717.1**
MIN	**0.0**	**0.0**	**0.0**	**0.0**	**17.2**	**12.1**	**30.5**	**30.0**	**33.8**	**12.4**	**2.1**	**0.0**	**439.5**

Tabla Dato de Precipitación Condega

Metorological Station : CONDEGA
Code : 45003
Parameter : PRECIPITATION
Period : 1980-2000

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1980	1.5	1.5	0	4.5	207.8	119.8	108.4	101.6	140.9	294.2	42.3	7	1029.5
1981	0	4.5	36.6	16.4	185.5	310.5	43.7	166	53.4	118	9.6	32.7	976.9
1982	2.5	7.8	0.5	67.8	307.4	170.8	52.8	39.8	89.3	62.3	18.3	10.3	829.6
1983	0.3	2.7	7.7	69.2	72.2	191.5	45.5	138	90.1	52.7	51.1	14.7	735.7
1984	1.2	6	54.5	14.9	58	82.2	161.9	164.7	214.2	72.8	3.5	4.5	838.4
1985	2.6	0.5	2.4	19.4	79.5	37.4	82.7	24.5	47.1	143	43.9	7.5	490.5
1986	3	1	0	0	291.9	107.3	71.4	65.7	79.9	78.1	10.2	2.7	711.2
1987	22.5	2.2	63.6	18.4	119	63.4	75.4	143	75.1	115.1	27.1	15.9	740.7
1988	17.2	2.4	15.2	104.1	103.7	186.2	53.4	209	355.1	105.3	16.5	8.7	1176.8
1989	11.2	13.1	1.5	0	39.4	100.2	58.4	138.9	289.9	22.5	39.9	7.6	722.6
1990	8.4	6.3	3	15.7	97.4	31.1	40.2	115.8	85.4	194.3	104.2	26.1	727.9
1991	9	2.4	0.2	0.2	126	86.7	115.3	48.6	0	140	54.4	14.4	597.2
1992	5.1	8.8	2.5	2.7	95.6	68.2	59.5	25.6	141.7	61.7	3.8	17.1	492.3
1993	10.6	4.3	2	93.6	213.8	234.7	49.6	104.7	200.9	80.1	11.4	14.9	1020.6
1994	12.7	9.8	1.7	34.8	66.1	65.8	19.3	82.8	138.8	107.2	57.5	3.6	600.1
1995	2.8	2.2	59.6	85.9	38.9	184.5	118.6	215.8	203.9	197.9	32.7	16.6	1159.4
1996	8.1	2	2.8	0.7	192.2	52.1	136.3	170.7	108.2	226.3	189.4	9.3	1098.1
1997	60	3.6	13.2	2.7	10.7	179.3	58.9	54.5	76.1	226.3	51.8	2.3	739.4
1998	3.8	0	80.1	0.2	61.6	98.2	70.2	214.7	197.7	615.1	1.6	17.6	1360.8
1999	12.1	74.2	14.7	24.1	97.1	97	62.2	47.1	262.2	221.5	23.3	3.9	939.4
2000	11	4.2	0	0.1	110.3	96.4	39.9	64.1	218.6	84.4	28	10.3	667.3
Averaege	**9.8**	**7.6**	**17.2**	**27.4**	**122.6**	**122.1**	**72.6**	**111.2**	**146.1**	**153.3**	**39.1**	**11.8**	**840.7**
MAX	**60.0**	**74.2**	**80.1**	**104.1**	**307.4**	**310.5**	**161.9**	**215.8**	**355.1**	**615.1**	**189.4**	**32.7**	**1360.8**
MIN	**0.0**	**0.0**	**0.0**	**0.0**	**10.7**	**31.1**	**19.3**	**24.5**	**0.0**	**22.5**	**1.6**	**2.3**	**490.5**

Tabla Dato de Precipitación San Ishidoro de Barbacoa

Metorological Station : San Isidro de Barbacoa/Raúl González
Code : 69029
Parameter : PRECIPITATION
Period : 1980-2000

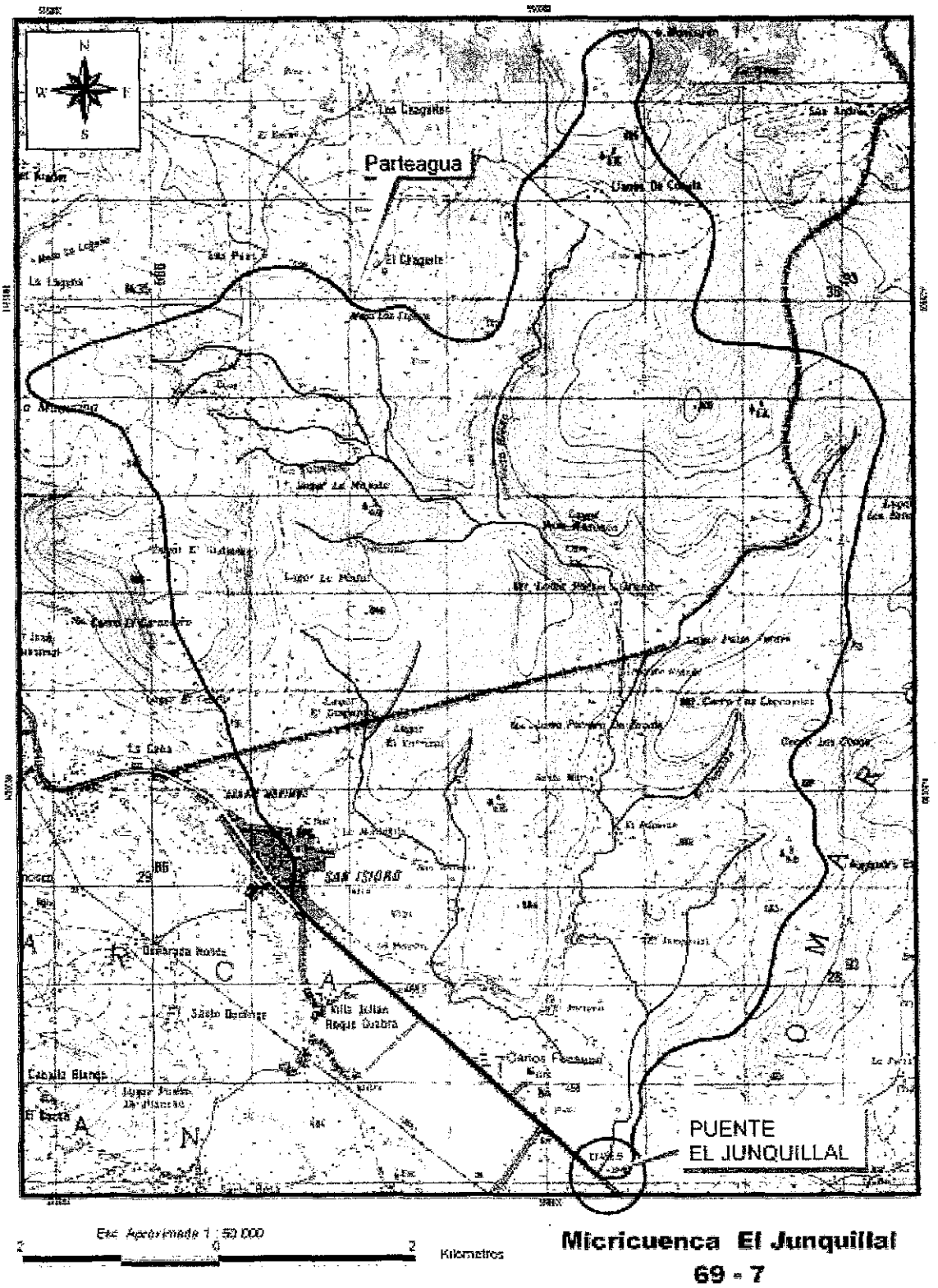
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1980	0.8	0	0	0	344.7	162.2	145.3	151.3	133.7	283.3	164.6	0.5	1386.4
1981	0	0	31.4	21.7	183.3	300.5	40.3	291.3	58.2	98.9	31.5	7.5	1064.6
1982	0.7	1.1	1	12.8	438.6	167.6	47.9	15.9	83.9	85.1	20.9	16	891.5
1983	0	0.9	9.5	26.5	84.2	100.9	54.1	148.7	108.4	37.3	44.2	4.5	619.2
1984	0	0	12.5	13.6	10.4	113.3	112.6	192	301.7	48.5	5.2	3	812.8
1985	0	0	0	55	82.8	88.4	64.1	89.1	117.7	245.9	80.9	0.2	824.1
1986	0	5.3	0.5	0	161.2	46	69.5	75.1	96.6	50.1	15.9	1	521.2
1987	9.5	0	11	0	36.3	95.6	138.4	109.3	198.6	47.5	1.7	220.8	868.7
1988	0.4	1.3	22.3	103.7	115.7	166.2	55.8	120.3	193.4	217.1	58.1	4.6	1059.0
1989	3.1	1.0	0	0	33.8	131.5	150	184.9	166.5	57	20	15.6	763.4
1990	0	0.5	0	20.9	117.1	78	75.8	67.8	111.2	143.6	107.6	7.3	729.8
1991	1.6	1	0	1.6	182.1	96	17.9	14.2	121.4	96.3	40.2	0.3	572.6
1992	0.3	5.7	0	0	73	130.9	70.3	43.5	188	57.6	29.7	8.1	607.1
1993	7.6	0	0.9	0.9	275.3	208.4	61.6	69.6	335.2	129.4	13.9	1.6	1104.4
1994	1.5	1.8	2	84.6	91.6	154.9	21.8	70.8	198.7	112.4	88.9	2	831.0
1995	0.4	0	67.5	57.7	129	184.6	32.4	439.3	297	324.9	18.7	15.9	1567.4
1996	9.9	0.3	38.4	2.6	149.5	43.2	204.4	215.3	101.1	340.4	221.8	0.6	1327.5
1997	2.5	0	18.8	5.9	10.1	252	97.6	11.4	102.1	157.7	67.6	0	725.7
1998	0	0	3.5	0	125.8	92.6	44.8	154.9	139.7	888.4	65	3.2	1517.9
1999	10.1	1.8	1.7	8.8	56.3	144.3	95.4	101.7	265.5	215	11.9	0	912.5
2000	0	0.1	0.9	0	71	70.7	87	69.7	294.9	82.6	12.3	0.7	689.9
Averaege	**2.3**	**1.0**	**10.6**	**19.8**	**132.0**	**134.7**	**80.3**	**125.5**	**172.1**	**177.1**	**53.4**	**14.9**	**923.7**
MAX	**10.1**	**5.7**	**67.5**	**103.7**	**438.6**	**300.5**	**204.4**	**439.3**	**335.2**	**888.4**	**221.8**	**220.8**	**1567.4**
MIN	**0.0**	**0.0**	**0.0**	**0.0**	**10.1**	**43.2**	**17.9**	**11.4**	**58.2**	**37.3**	**1.7**	**0.0**	**521.2**

Tabla Dato de Precipitación Leon

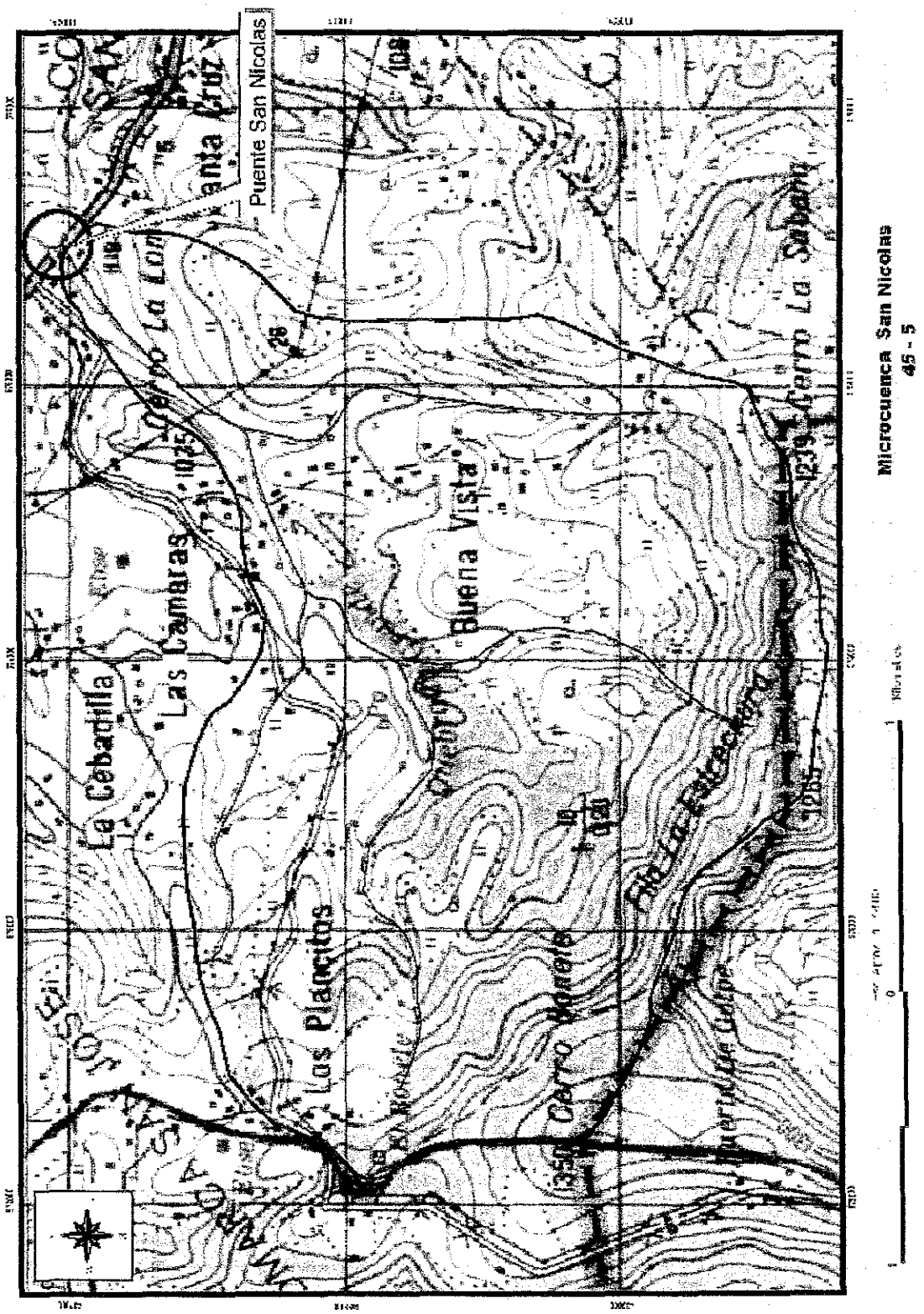
Metological Station : LEON-Aeropuerto Godoy
Code : 64043
Parameter : PRECIPITATION
Period : 1980-2000

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1980	0	0	0	0	169.1	218.3	121.6	61.5	283.3	183.9	125.7	22.9	1186.3
1981	0	0	54.8	0	444.9	550.2	142.7	276.5	263	446.7	2.6	7.2	2188.6
1982	39.6	0	0	0	1214.9	126.1	8.1	7.5	383.3	110	1	13.5	1904
1983	0.4	0	1.4	2.8	91.8	158.2	59.8	94	308	251.8	176.2	9.8	1154.2
1984	0	0.1	1	11.3	150	184.8	121.2	94	507.8	151	27.1	0	1248.3
1985	0	0	0	75.2	66.4	146.9	229.5	230.9	179.2	595.7	91.2	1.9	1616.9
1986	0	5.7	1	0	470.9	251.9	15.5	84.4	170	238.1	9.7	0	1247.2
1987	1.8	0	2.4	0	157.4	266	155.9	143.8	301.1	168.6	0.2	0.5	1197.7
1988	0	0	0.6	1.8	264.9	282.9	231.8	732.7	386.2	483.5	17.5	0.8	2402.7
1989	0	0	0	0	60.8	270.7	190	291	472.6	117.5	126.7	46.7	1576
1990	0	0	0	100	139.8	57.8	81.6	97.8	326.5	282.9	92.8	1.1	1180.3
1991	1.4	0	0	61	274.8	188.6	24.3	92.9	209.1	203.3	33.3	1.2	1089.9
1992	0	3.3	0	0	59.1	173.9	19.6	129.8	376.7	39.3	49.2	13	863.9
1993	2.3	0	0.3	4.9	474.8	322.5	16.9	128.9	681.4	89.2	38.4	0	1759.6
1994	0.5	0	1.7	81.8	131.7	106.1	1.8	218	295.8	239	282.8	0	1359.2
1995	0	0	5.5	13.9	150.4	275.7	193	390.7	441.1	645.9	12.3	21.2	2149.7
1996	8.4	0	0	1.6	255.9	202.7	336.3	203	319.2	495.3	430.6	0	2253
1997	0.6	0	0	13.1	42.3	543.1	32.5	36.8	145.2	227.2	58.2	0	1099
1998	0	0	0.6	15	76.1	114.3	132.7	245.7	495	1338.6	129.3	0.2	2547.5
1999	0	0	0.9	12.1	98.1	257.8	83.8	211.3	1107.9	336.3	116.4	0.5	2225.1
2000	0.3	0	0	0	93.4	112	64.2	116.9	703.6	279.2	109.4	0.1	1479.1
Averaege	**2.6**	**0.4**	**3.3**	**18.8**	**232.7**	**229.1**	**107.8**	**185.1**	**397.9**	**329.7**	**91.9**	**6.7**	**1606.1**
MAX	**39.6**	**5.7**	**54.8**	**100**	**1214.9**	**550.2**	**336.3**	**732.7**	**1107.9**	**1338.6**	**430.6**	**46.7**	**2547.5**
MIN	**0**	**0**	**0**	**0**	**42.3**	**57.8**	**1.8**	**7.5**	**145.2**	**39.3**	**0.2**	**0**	**863.9**

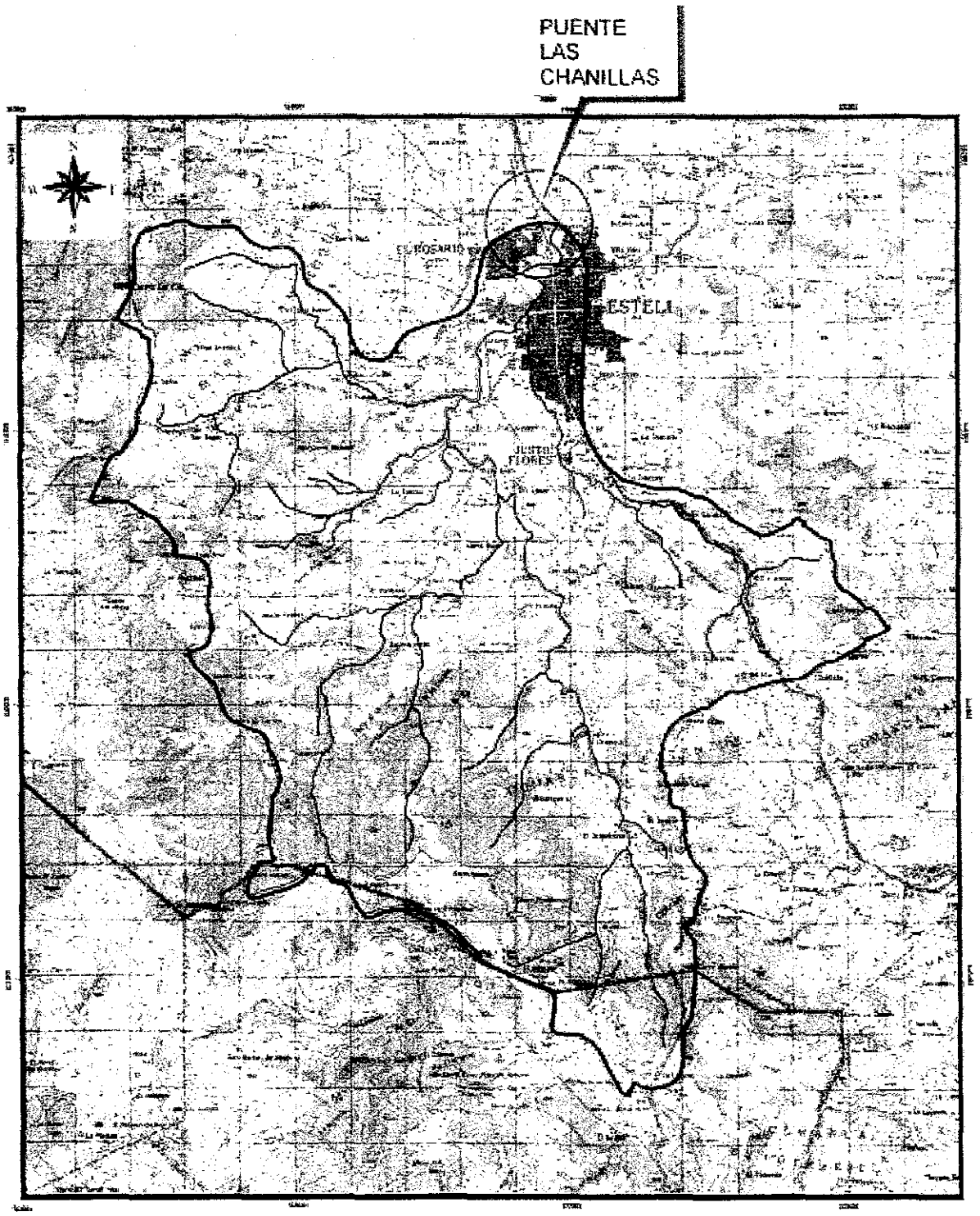
Apéndice A3.4 Mapa de Cuenca Hidrográfica



Cuenca El Junquollal

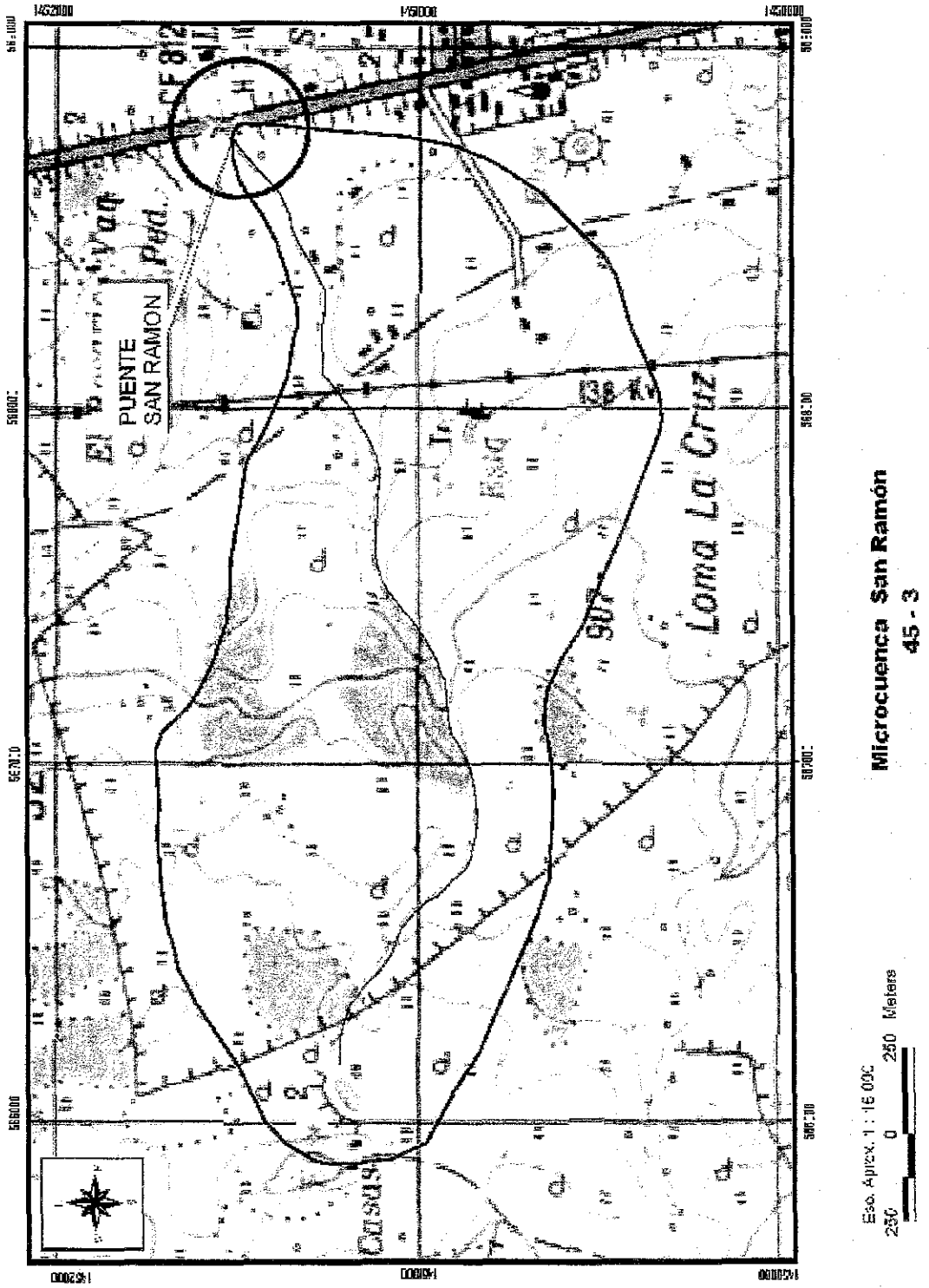


Cuenca San Nicolas

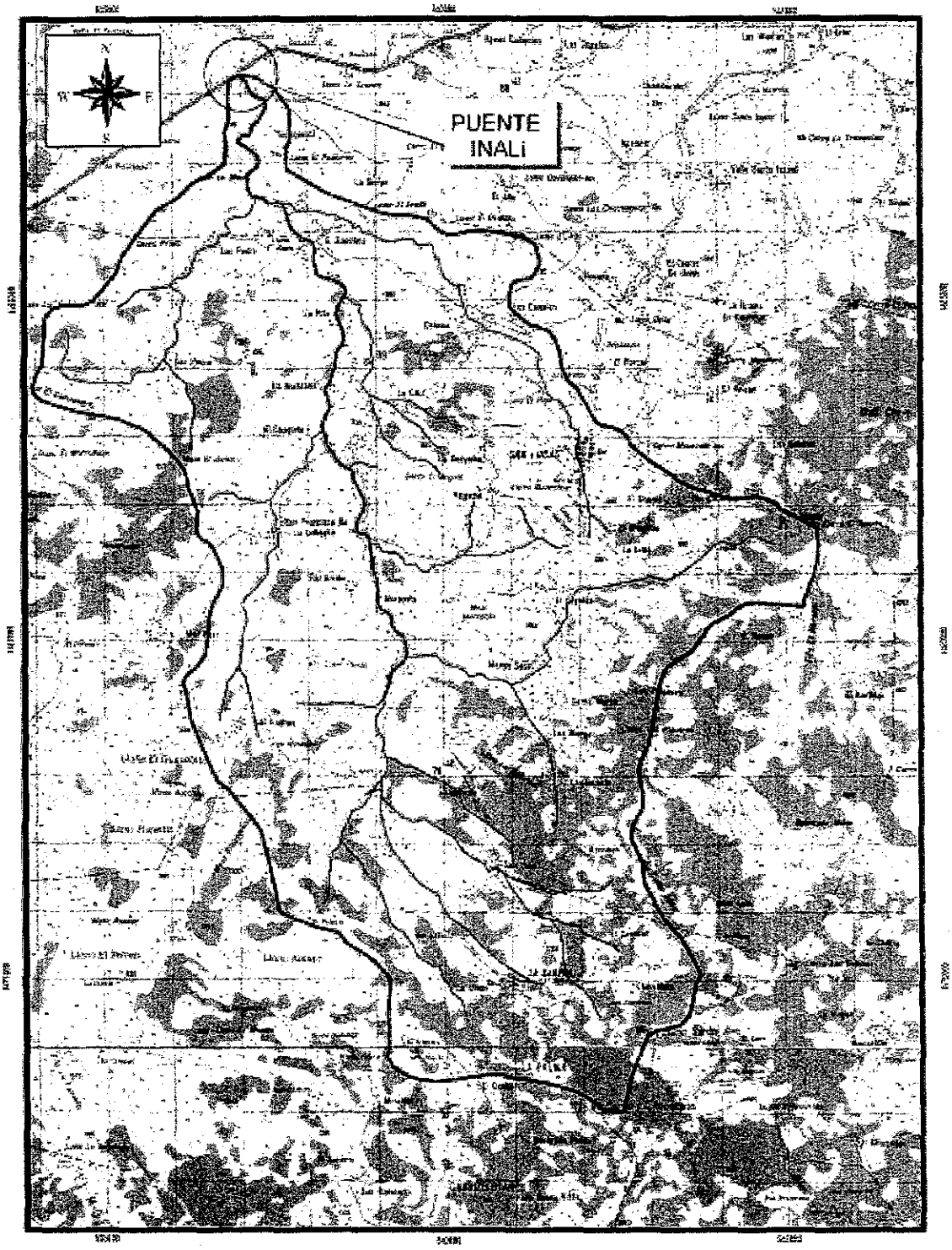


Microcuenca Las Chanillas
45 - 4

Cuenca Las Chanillas



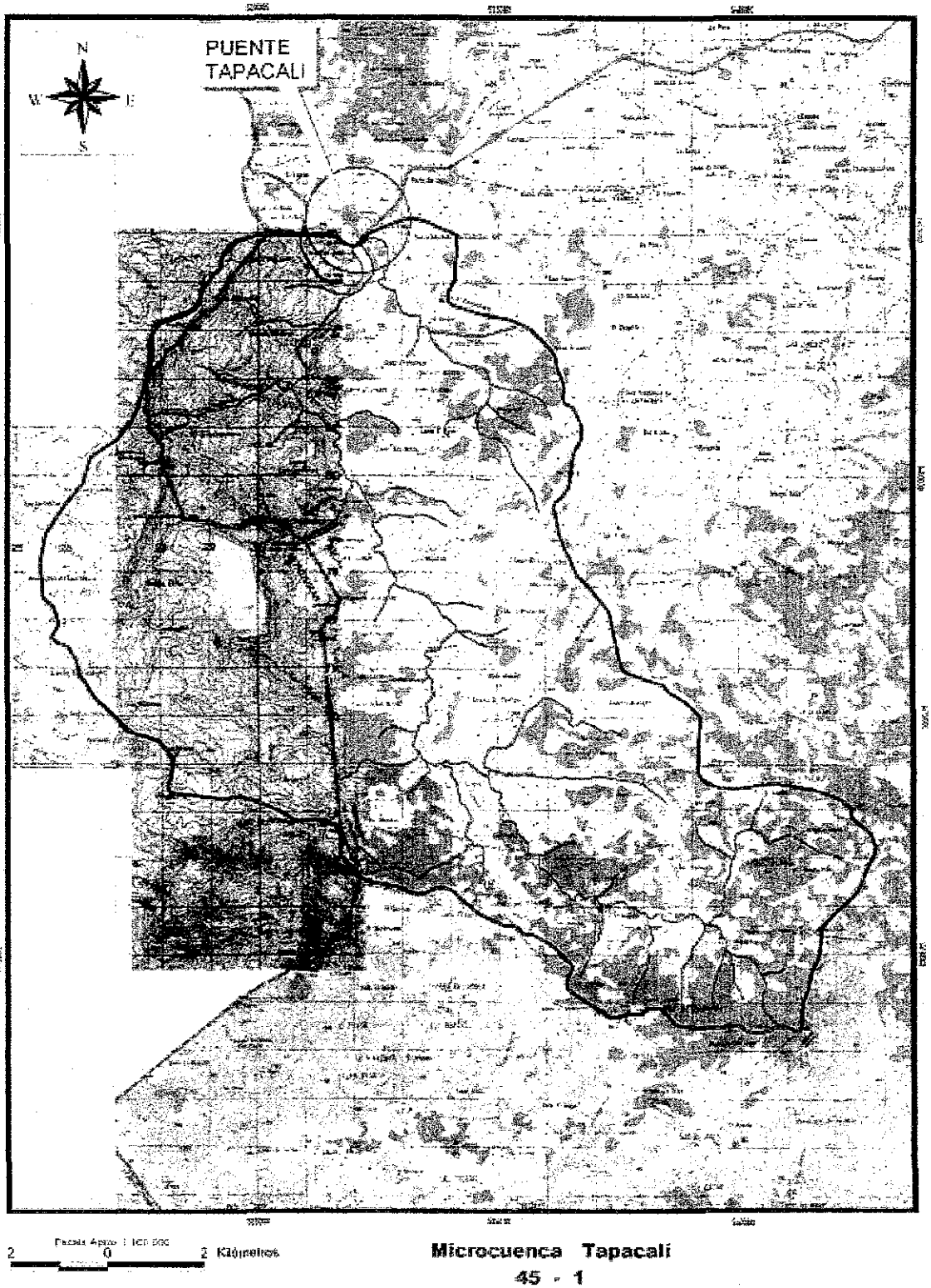
Cuenca San Ramon



Esc. Apróximada 1 : 75 000
1 0 1 2
Kilómetros

Microcuenca Inali
45 - 2

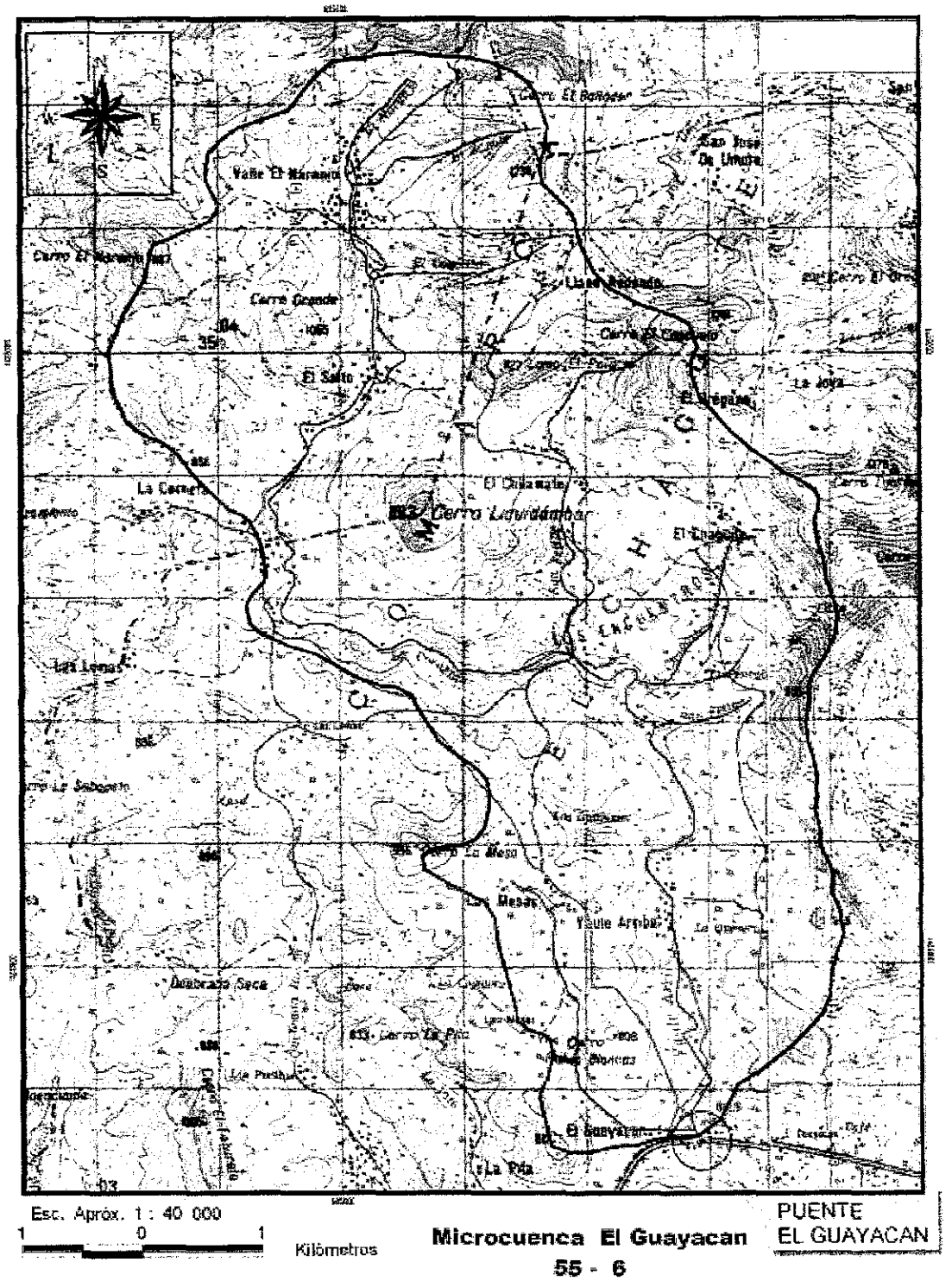
Cuenca Rio Inali



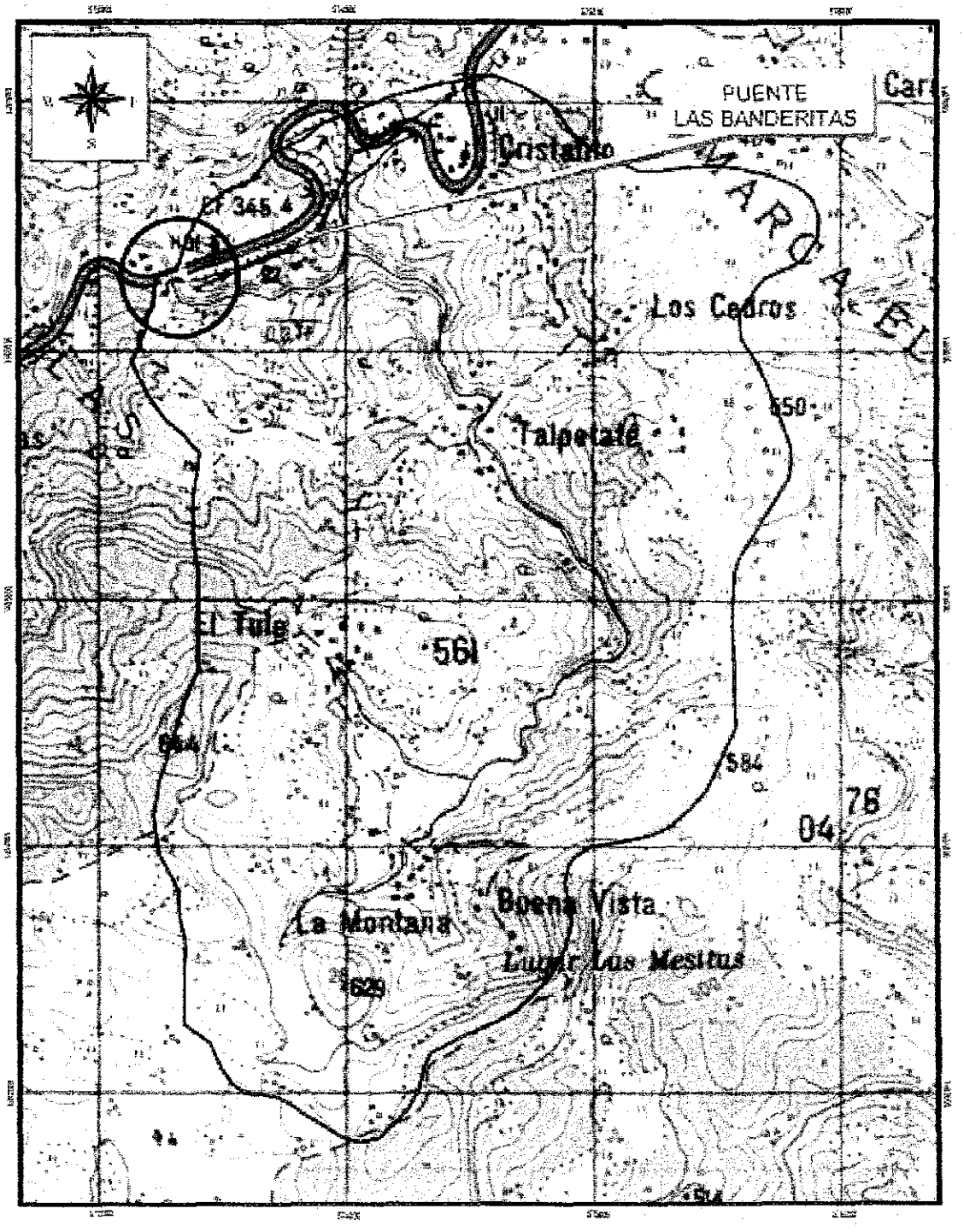
Microcuenca Tapacali

45 - 1

Cuenca Rio Tapacali

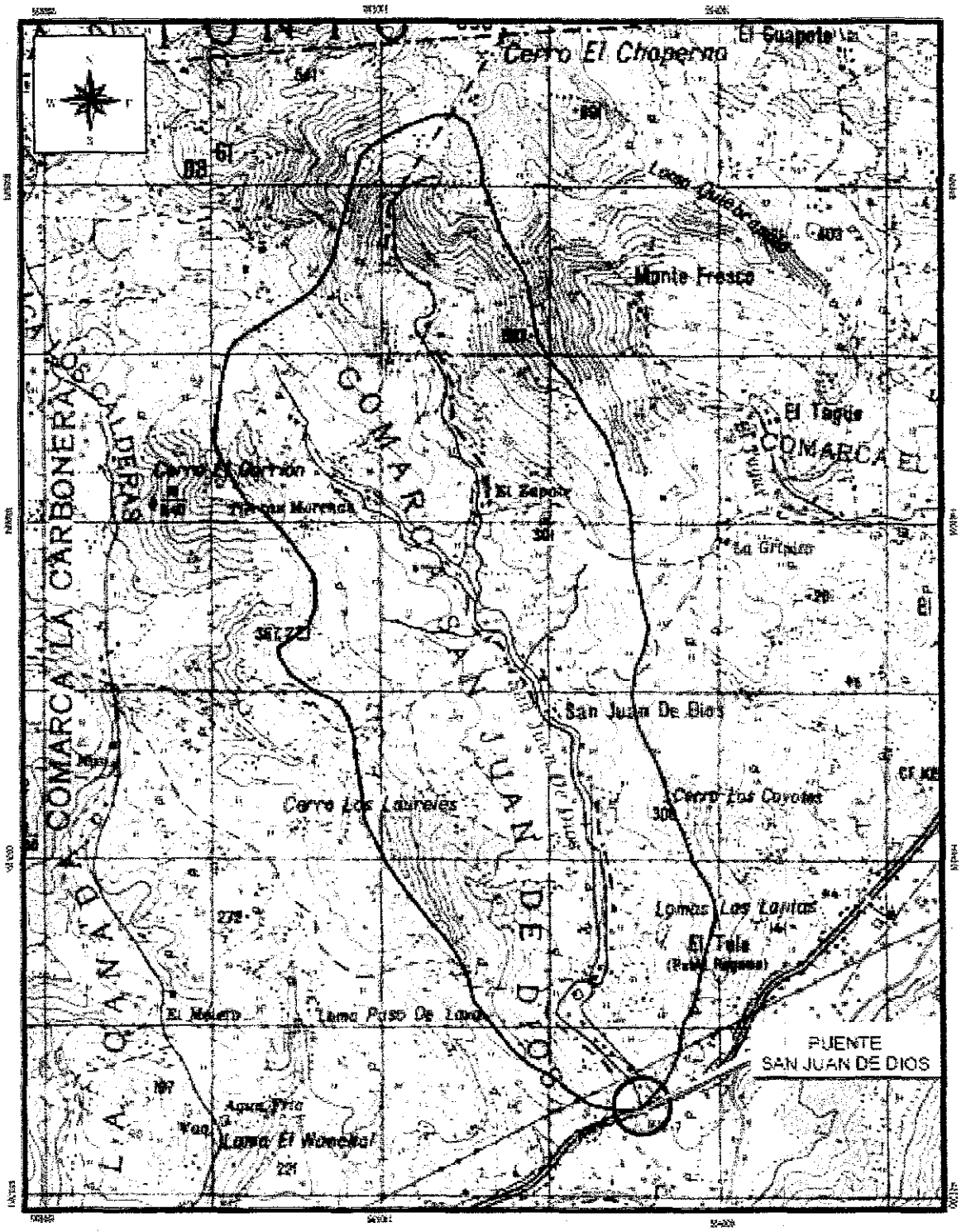


Cuenca El Guayacán



Microcuenca Las Banderitas
69 - 8

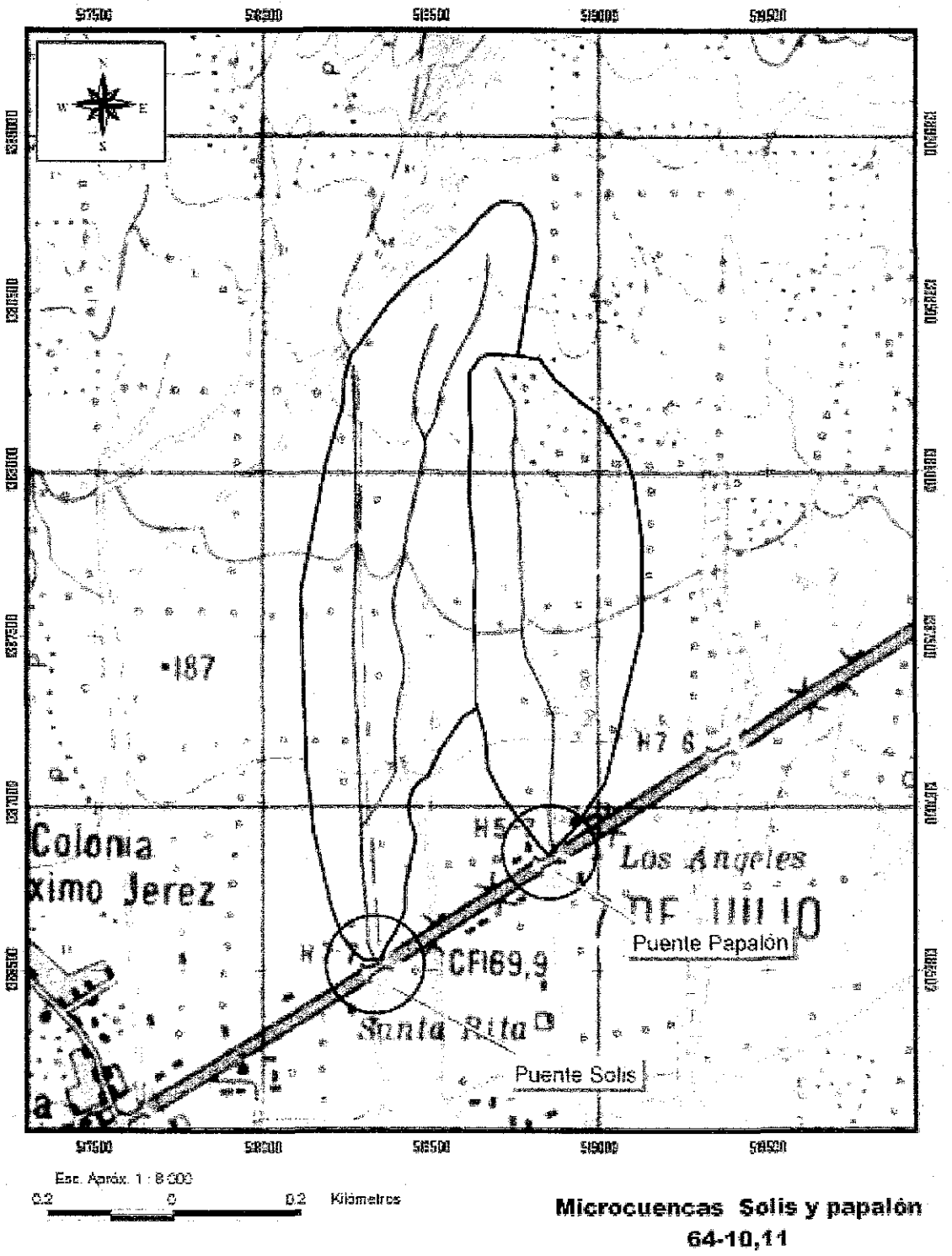
Cuenca Las Banderita



Microcuenca San Juan de Dios

69 - 9

Cuenca San Juan de Dios



Microcuencas Solis y papalón
64-10,11

Cuenca Río Inalí

Apéndice 4

Datos de Estudios del Tráfico

Apéndice A4 Datos de Estudios del Tráfico

A4.1 Conteo de Tráfico

TRAFFIC STUDY FOR VULNERABILITY REDUCTION ON MAJOR ROADS IN NICARAGUA
JICA STUDY TEAM

ORIENTAL CONSULTANTS CO., LTD
JAPAN ENGINEERING CONSULTANTS CO., LTD

CONTEO DE TRÁFICO - RECORDING SHEET

Número de Estación 4	Nombre de la Estación San Ishidoro, NIC 26		Numero de Hoja
Dirección de Tráfico		Nombre de Contador	
Fecha		Clima	

Periodo de Tiempo		Vehículo de Pasajeros	Minibus	Autobus	Camión Pequeño	Camión Pesado	Camión Articulado	Motocicleta	Bicicleta	Tractor	Camióneta	Otros
Empezar	Fin	Nota 1	< 25 asientos	>25 asientos	2 ejes	3 ejes	5 y 6 ejes			(y remolque)	Nota 2	
7:00	7:15											
7:15	7:30											
7:30	7:45											
7:45	8:00											
8:00	8:15											
8:15	8:30											
8:30	8:45											
8:45	9:00											
9:00	9:15											
9:15	9:30											
9:30	9:45											
9:45	10:00											
10:00	10:15											
10:15	10:30											
10:30	10:45											
10:45	11:00											
11:00	11:15											
11:15	11:30											
11:30	11:45											
11:45	12:00											
12:00	12:15											
12:15	12:30											
12:30	12:45											
12:45	13:00											
13:00	13:15											
13:15	13:30											
13:30	13:45											
13:45	14:00											
14:00	14:15											
14:15	14:30											
14:30	14:45											
14:45	15:00											
15:00	15:15											
15:15	15:30											
15:30	15:45											
15:45	16:00											
16:00	16:15											
16:15	16:30											
16:30	16:45											
16:45	17:00											
17:00	17:15											
17:15	17:30											
17:30	17:45											
17:45	18:00											
18:00	18:15											
18:15	18:30											
18:30	18:45											
18:45	19:00											

Por ejemplo **Nota 1** **Vehiclulo de Pasajeros(Sédan)** : Toyota Corolla; Mitsubushi Lancer; Nissan Sentra
Nota 2 **Camióneta (Utilitario)** : Toyota Hilux, Land Cruiser; Mitsubishi Montero; Nissan Samurai

A4.2 Estudio de Origen- Destino

TRAFFIC STUDY FOR VULNERABILITY REDUCTION ON MAJOR ROADS IN NICARAGUA
JICA STUDY TEAM

ORIENTAL CONSULTANTS LTD
JAPAN ENGINEERING CONSULTANTS CO., LTD

FORMATO DE ENCUESTA DE CARRETERA ORIGEN-DESTINO

Numero de Estaci	Nombre de Estación		
Dirección de Tráfico		Nombre de Encuestador	
Fecha		Clima	

Tiempo (p.e. 07.12)	Modo de Viaje (1)	Numero de Pasajeros	Origen		Destino		Proposito del Viaje (3)	Frecuencia de viaje (4)	Tipo de Carga (5)	Carga (Tonnes)
			Pueblo y Department (2)	Code	Pueblo y Department (2)	Code				

(2) Si exterior, escribo el pais yiudad grande

NOTAS

(1) Modo de Viaje	
Vehículo de pasajeros	1
Minibus (< 25 asientos	2
Autobus (> 25 asientos)	3
Camión Pequeño (2 ejes)	4
Camión Pesado (3 ejes)	5
Camión Articulado (4,5 y 6 ejes)	6
Motocicleta	7
Bicicleta	8
Tractor (y remolque)	9
Camióneta	10
Otros	11

(3) Proposito del Viaje	
Al trabajo/De Negocios	1
Al Escuela/Colegio/Universidad	2
Comprar/Privado	3
Tourismo	4
Deportivo y reunión amigos	5
Otros	6

(4) Frecuencia de viaje	
5-7 por semana	1
3-4 por semana	2
1-2 por semana	3
0-1 per semana	4

(5) Tipo de Carga	
Aciete, Petróleo	1
Algodón	2
Arroz	3
Azucar	4
Bananas	5
Café	6
Cemento	7
Construcción	8
Ganado	9
Grano	10
Medera	11
Metales	12
Químicos	13
Sésamo, Ajonjoli	14
Tabaco	15
Vaca, Carne vaca	16
Solo pasajeros	17
Otros comida, comestible	18
Otros no comida	19
Vacios	20

Apéndice 5

Datos del APJ

A.5.1 Tabla de Resultado de Análisis por APJ

			Criterio de Evaluación			Nivel de Estabilidad	Volumen de Tráfico	Evaluación Ambiental	Condición Natural	Beneficio B/C	Nivel de Restauración	Situación de Desarrollo
			Weight of each Evaluation Criteria			0.3668	0.1673	0.0839	0.1800	0.0383	0.1430	0.0207
Número de Ruta	Tipo de Desastres	Número de Serie de Sitios Críticos de Desastres	Analysis result			Weight of each Alternative Spots						
			Peso	Rango	Juicio*	Nivel de Estabilidad	Volumen de Tráfico	Evaluación Ambiental	Condición Natural	Beneficio B/C	Nivel de Restauración	Situación de Desarrollo
Nic1	R.F.	1	0.0207	17	D.P.S.	0.0110	0.0330	0.0449	0.0322	0.0168	0.0029	0.0246
	R.F.	2	0.0226	10	D.P.S.	0.0215	0.0324	0.0186	0.0322	0.0178	0.0054	0.0246
	Bridge	3	0.0209	15	D.P.S.	0.0276	0.0269	0.0071	0.0141	0.0517	0.0066	0.0114
	Bridge	4	0.0279	7	D.P.S.	0.0527	0.0269	0.0071	0.0028	0.0482	0.0066	0.0114
	Bridge	5	0.0220	12	D.P.S.	0.0276	0.0242	0.0186	0.0141	0.0276	0.0149	0.0237
	Bridge	6	0.0314	3	D.P.S.	0.0527	0.0242	0.0449	0.0028	0.0459	0.0106	0.0237
	R.F.	7	0.0189	23	D.P.S.	0.0215	0.0242	0.0186	0.0141	0.0070	0.0149	0.0237
	R.C.	8	0.0176	28	D.P.S.	0.0090	0.0242	0.0186	0.0299	0.0097	0.0172	0.0237
	R.C.	9	0.0125	44		0.0083	0.0242	0.0186	0.0028	0.0089	0.0172	0.0237
	R.C.	10	0.0131	42		0.0083	0.0242	0.0186	0.0068	0.0072	0.0172	0.0237
	R.C.	11	0.0175	30	D.P.S.	0.0162	0.0242	0.0186	0.0141	0.0109	0.0172	0.0237
	R.C.	12	0.0187	24	D.P.S.	0.0122	0.0242	0.0186	0.0322	0.0178	0.0116	0.0237
	R.C.	13	0.0183	26	D.P.S.	0.0094	0.0242	0.0186	0.0322	0.0129	0.0172	0.0237
	R.F.	14	0.0174	31		0.0094	0.0242	0.0186	0.0299	0.0088	0.0149	0.0237
	R.C.	15	0.0137	40		0.0089	0.0242	0.0186	0.0068	0.0168	0.0172	0.0237
	R.C.	16	0.0164	34		0.0094	0.0242	0.0071	0.0299	0.0206	0.0116	0.0237
	R.F.	17	0.0148	35		0.0070	0.0186	0.0186	0.0322	0.0083	0.0066	0.0246
	Bridge	18	0.0284	6	D.P.S.	0.0527	0.0052	0.0449	0.0068	0.0268	0.0116	0.0246
	Bridge	19	0.0285	5	D.P.S.	0.0527	0.0052	0.0449	0.0028	0.0278	0.0172	0.0246
	R.C.	20	0.0113	50		0.0090	0.0052	0.0186	0.0141	0.0091	0.0149	0.0246
	R.F.	21	0.0090	52		0.0089	0.0052	0.0186	0.0028	0.0160	0.0116	0.0246
	R.F.	22	0.0089	53		0.0089	0.0052	0.0186	0.0068	0.0148	0.0066	0.0246
Nic3	R.C.	23	0.0143	37		0.0090	0.0256	0.0071	0.0028	0.0341	0.0290	0.0090
	R.C.	24	0.0200	19	D.P.S.	0.0090	0.0256	0.0186	0.0299	0.0304	0.0290	0.0090
	R.C.	25	0.0214	14	D.P.S.	0.0147	0.0256	0.0186	0.0299	0.0428	0.0210	0.0090
	Bridge	26	0.0371	1	D.P.S.	0.0527	0.0256	0.0186	0.0322	0.0598	0.0254	0.0090
	R.C.	*27*	*0.0186*	*25*	*D.P.S.*	*0.0094*	*0.0256*	*0.0036*	*0.0299*	*0.0223*	*0.0290*	*0.0090*
	R.C.	28	0.0111	51		0.0083	0.0102	0.0071	0.0068	0.0068	0.0290	0.0043
	S.S.	29	0.0176	29	D.P.S.	0.0089	0.0102	0.0071	0.0322	0.0041	0.0422	0.0043
	D.F.	30	0.0217	13	D.P.S.	0.0198	0.0102	0.0071	0.0322	0.0051	0.0422	0.0043
	S.S.	31	0.0169	32		0.0074	0.0102	0.0036	0.0322	0.0061	0.0422	0.0043
	S.S.	32	0.0252	8	D.P.S.	0.0276	0.0102	0.0186	0.0299	0.0072	0.0422	0.0043
	S.S.	33	0.0229	9	D.P.S.	0.0276	0.0102	0.0071	0.0322	0.0111	0.0290	0.0043
	R.C.	34	0.0166	33		0.0198	0.0102	0.0071	0.0141	0.0079	0.0290	0.0043
Nic5	R.F.	35	0.0198	21	D.P.S.	0.0147	0.0101	0.0071	0.0322	0.0068	0.0422	0.0027
Nic15	D.F.	36	0.0117	47		0.0070	0.0053	0.0022	0.0322	0.0061	0.0106	0.0258
	D.F.	37	0.0117	48		0.0070	0.0053	0.0024	0.0322	0.0053	0.0106	0.0258
	D.F.	38	0.0076	55		0.0070	0.0053	0.0071	0.0068	0.0075	0.0106	0.0258
	D.F.	39	0.0082	54		0.0070	0.0053	0.0071	0.0068	0.0064	0.0149	0.0258
Nic26	R.F.	40	0.0138	39		0.0074	0.0207	0.0186	0.0141	0.0155	0.0172	0.0246
	R.F.	41	0.0147	36		0.0070	0.0207	0.0186	0.0141	0.0129	0.0254	0.0246
	R.F.	42	0.0116	49		0.0074	0.0207	0.0186	0.0028	0.0088	0.0172	0.0246
	R.F.	43	0.0121	45		0.0083	0.0207	0.0186	0.0028	0.0129	0.0172	0.0246
	R.F.	44	0.0183	27	D.P.S.	0.0110	0.0207	0.0186	0.0322	0.0118	0.0172	0.0246
	Bridge	45	0.0320	2	D.P.S.	0.0527	0.0207	0.0449	0.0028	0.0200	0.0254	0.0246
	R.F.	46	0.0142	38		0.0110	0.0183	0.0186	0.0141	0.0223	0.0116	0.0246
	R.C.	47	0.0127	43		0.0089	0.0183	0.0186	0.0028	0.0200	0.0210	0.0246
	R.F.	48	0.0134	41		0.0083	0.0183	0.0186	0.0141	0.0276	0.0116	0.0246
	R.C.	49	0.0199	20	D.P.S.	0.0147	0.0183	0.0071	0.0322	0.0111	0.0290	0.0246
	R.F.	50	0.0223	11	D.P.S.	0.0232	0.0183	0.0186	0.0322	0.0107	0.0172	0.0246
	R.C.	51	0.0194	22	D.P.S.	0.0228	0.0183	0.0071	0.0322	0.0155	0.0054	0.0090
	Bridge	52	0.0208	16	D.P.S.	0.0276	0.0199	0.0449	0.0068	0.0304	0.0066	0.0090
	R.C.	53	0.0119	46		0.0074	0.0199	0.0071	0.0141	0.0111	0.0149	0.0090
	Bridge	54	0.0204	18	D.P.S.	0.0276	0.0207	0.0449	0.0028	0.0373	0.0066	0.0090
	Bridge	55	0.0293	4	D.P.S.	0.0527	0.0207	0.0449	0.0028	0.0304	0.0066	0.0090