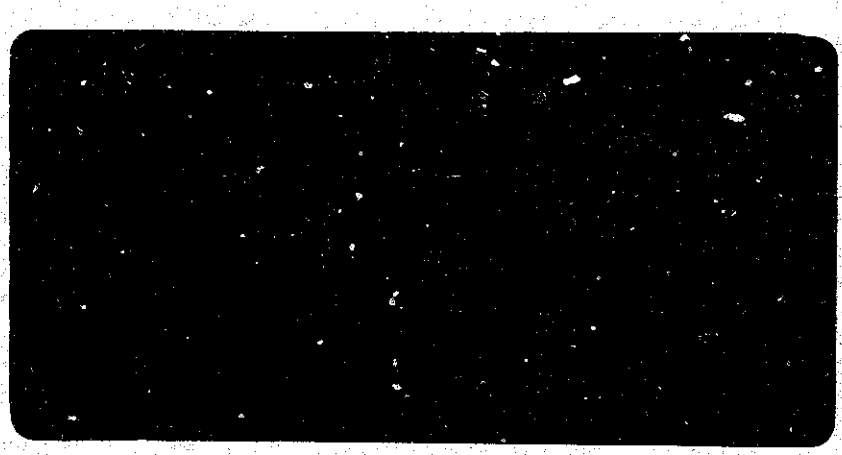

AGRICULTURAL DEVELOPMENT SUPPORT II
HAITI

University of Arkansas,
Fayetteville

STATISTICAL ATLAS OF THE TARGETED WATERSHED MANAGEMENT PROGRAM ZONE OF INTERVENTION

Report #49

ADS-II

Agricultural Development Support Project II

Statistical Atlas of

The Targeted Watershed Management Program

Zone of Intervention

USAID Contract # 521-0092
between
The University of Arkansas/
Winrock International
and
The Ministry of Agriculture
Haiti

Douglas C. Brown

Report #49
January, 1988

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Introduction

This volume contains a presentation of data extracted from the National Digital Resource Data Base which is relevant to the Targeted Watershed Management Program (TWMP). This data base was created the Agricultural Development and Support Project II (ADS-II) using geographic information system software developed by the Comprehensive Resource Inventory and Evaluation System (CRIES) project of Michigan State University. The entire data base may be obtained through the USAID Mission in Port-au-Prince, Haiti.

Time constraints precluded the possibility of including in this volume all of the relevant data contained in the data base. An editorial selection of the data that seemed most relevant to the TWMP was therefore essential. A complete description of the contents of the data base is contained in ADS-II Technical Report #45, Status Report on the Digital Resource Data Base For Haiti.

Data in this data base is stored at a resolution of 300 meters which yields a data cell size of nine hectares. Obviously, such a coarse resolution puts constraints on the use of the data. The purpose of the data presented in this volume is to give a broad regional characterization of the nature of the region, and the user is cautioned not to attempt to use this data as a source for detailed local analysis.

The terms of reference of the TWMP project specify that its zone of intervention includes the watersheds that drain southward from Pic Macaya. Map 1 shows all of the watersheds in this region as defined by Assistance Externe Fonds d'Aide et de Cooperation Francaise (BDPA,1982). From this map it can be easily determined that the southern drainage of Pic Macaya include three primary watersheds: Cavaillon, Les Cayes, and Tiburon-Port Salut. The rest of this volume, therefore, concentrates its attention on these three primary watersheds.

Map 2 zooms in to show a closeup of the three primary watersheds that form the TWMP Zone of Intervention. The numbers that follow each of the watershed names follow a nomenclature scheme developed by the Secretariat d'Admanagenent Bassins Versant (STAB) in the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) of the Haitian Government. The first two digits refer to the primary watershed, the second two to the secondary watershed, the third two digits to third order watershed, and the last two to fourth order watersheds (see map 3). In this manner, all of the watersheds in the country have been assigned a unique identifying code. For further information on this scheme, inquiries should be made at the STAB office in the MARNDR building at Damien.

Map 2 also shown the road network and the location of urban places. Information on the road network was obtained from the Atlas d'Haiti, Centre d'Etudes de Géographie Tropicale (CNRS) et Université de Bordeaux (1985). Information on the location of urban places was obtained from the 1:50,000 topographic map series of Haiti. Figure 1 gives a graphical representation of the areas covered by the three watersheds. Note that the Les Cayes and Tiburon-Port Salut primary watersheds are nearly equal in size, while the Cavaillon watershed is a little over half the size of the other two.

Map 3 shows the fourth order watersheds in the TWMP Zone of Intervention as defined by STAB. Note that the primary watershed is indicated by a letter code in the interest of clarity on the map: c for Cavaillon (20-00), l for Les Cayes (21-00), and t for Tiburon-Port Salut (22-00). Thus, the complete code for the fourth order watershed shown on the map as c2-01 is 20-00-02-01. Figures 2, 3, and 4 are graphs of the relative sizes of the fourth order watersheds within each primary watershed.

Map 4 shown the location of the major rivers in the TWMP Zone of Intervention. This information was obtained from the Atlas d'Haiti, Centre d'Etudes de Géographie Tropicale (CNRS) et Université de Bordeaux (1985).

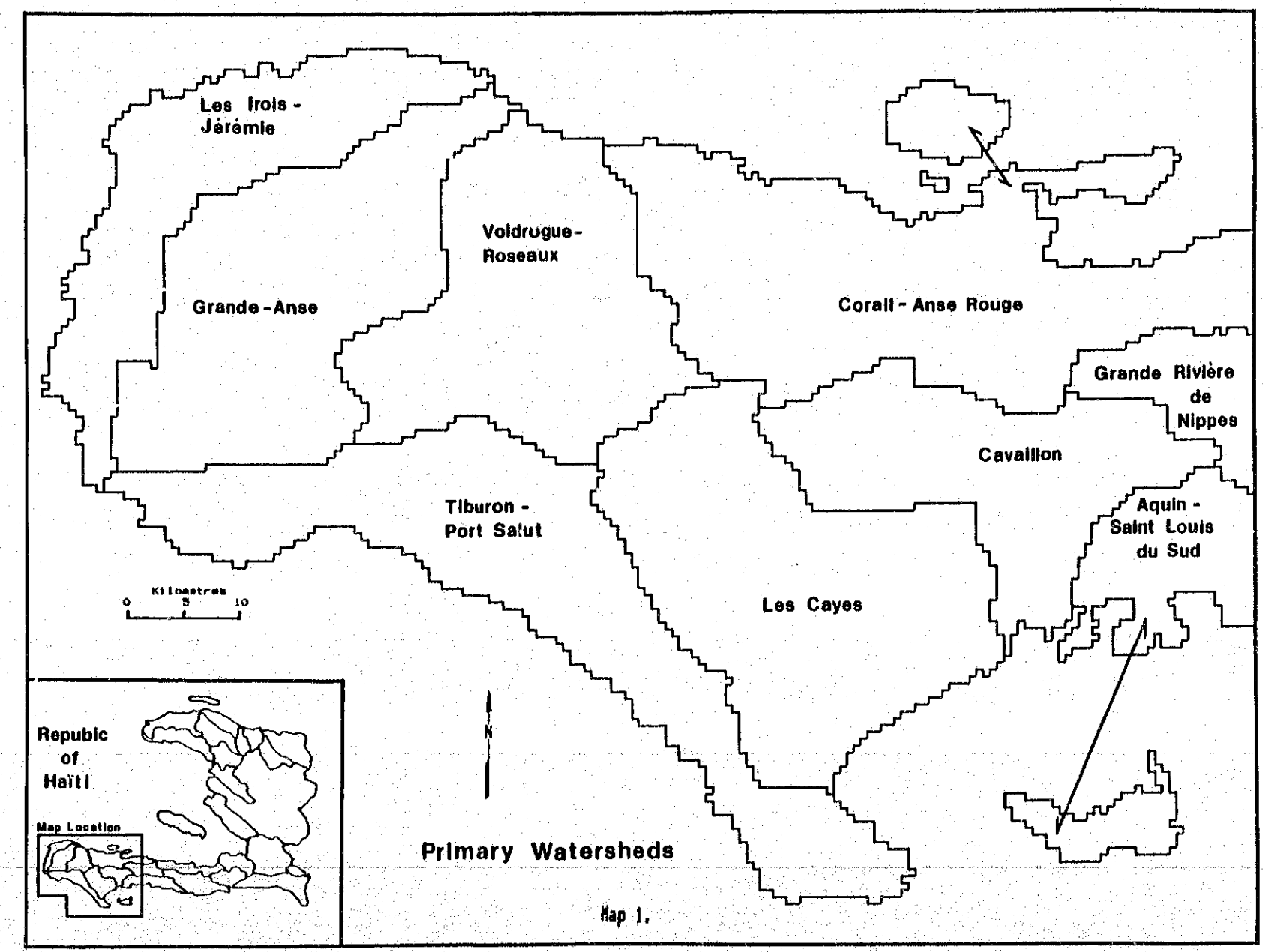
Map 5 shows the distribution of Holdridge Life zones in the TWMP Zone of Intervention as defined by the Organization of American States. Table 1 presents an explanation of the Holdridge codes found in the area. Figure 5 is a graphical representation of the areas occupied by each Holdridge class in each of the Primary watersheds. Tables 2, 3, and 4 give a detailed breakdown of the areas occupied by each Holdridge class in each fourth order watershed.

Maps 6, 7 and 8 show the locations of the various soil potential classes in the TWMP Zone of Intervention as defined by the Assistance Externe Fonds d'Aide et de Cooperation Francaise (BDPA,1982). Map 6 shows the good and excellent soils, Map 7 the average soils, and Map 8 the weak and limited soils. Figures 6, 7, 8, and 9 are graphs showing the distribution of soils by primary watershed. Figure 6 includes all of the soil potential classes, while figures 7, 8, and 9 are divided into the same soil potential groupings as the maps. Tables 5, 6, and 7 show the areas within each fourth order watershed that are occupied by each soil potential class.

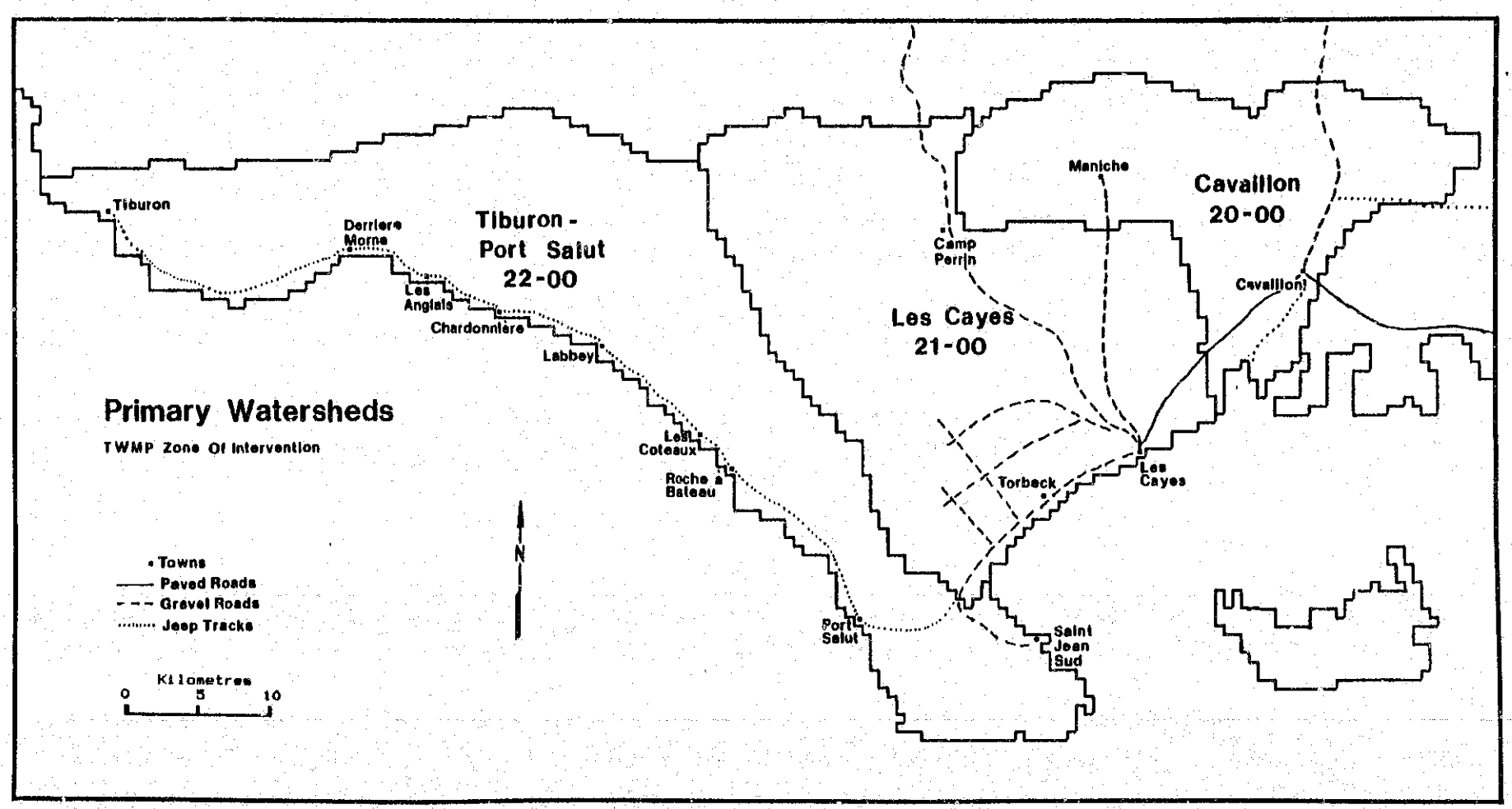
Maps 9, 10, 11, 12 depict the Land use/land cover in the TWMP Zone of Intervention as interpreted by Assistance Externe Fonds d'Aide et de Cooperation Francaise (BDPA,1982) from 1978 air photos. Map 9 shows Monoculture, Map 10 Mixed Agriculture, Map 11-Tree Culture, and Map 12-Non-Agricultural

Areas. Figures 10, 11, 12, 13, and 14 are graphs of the distributions of the various Land use/land cover classes by primary watershed. Figure 10 shows all of the classes, while figures 11 to 14 are grouped in the same catagories as the Land use/land cover maps. Tables 8, 9, and 10 present the number of hectares covered in 1978 by each land use/land cover class in every fourth order watershed.

Maps 13, 14, and 15 are maps of the location of Land use/land cover classes as interpreted from 1983 Landsat thematic mapper imagery by the CRIES project of Michigan State University. Map 13 shows the locations of land uses/land covers in the plains and valleys, Map 14 the same data in mountain areas, and Map 15 the Non-agricultural uses. Figures 15 to 18 present the areas occupied by these classifications in a graphical form by primary watershed. Figure 15 shows all of the classes, while figures 15 to 18 divide them up into the same groups as the maps. Tables 11, 12, and 13 show the areas occupied by each land use/land cover class, organized by fourth order watershed.

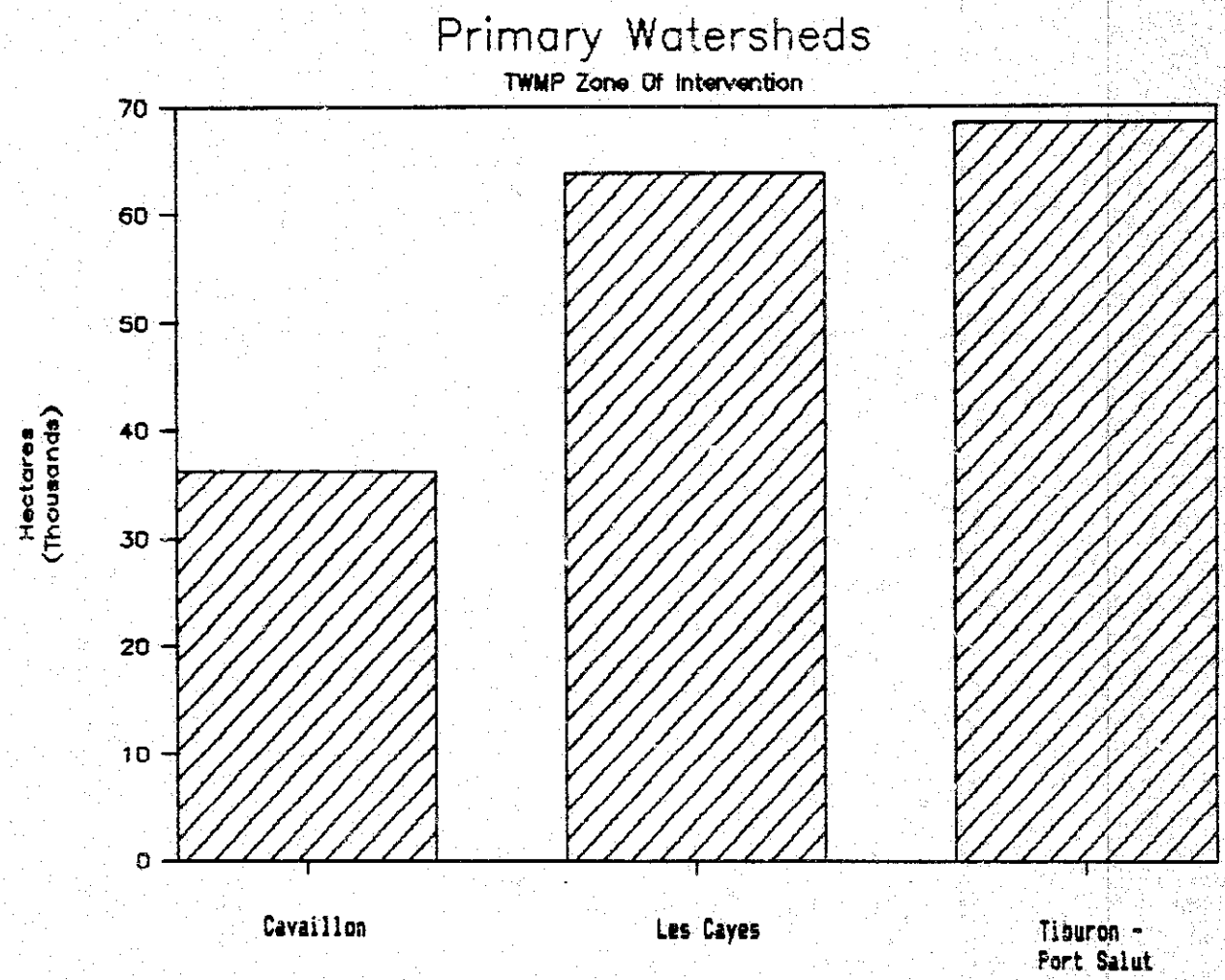

Les Irois - Jérémie
Voldrogue - Roseaux
Grande - Anse
Corail - Anse Rouge
Grande Rivière de Nippes
Cavaillon
Tiburon - Port Salut
Aquin - Saint Louis du Sud
Les Cayes
Kilometres
0 5 10
Republic of Haiti
Map Location
N
Primary Watersheds

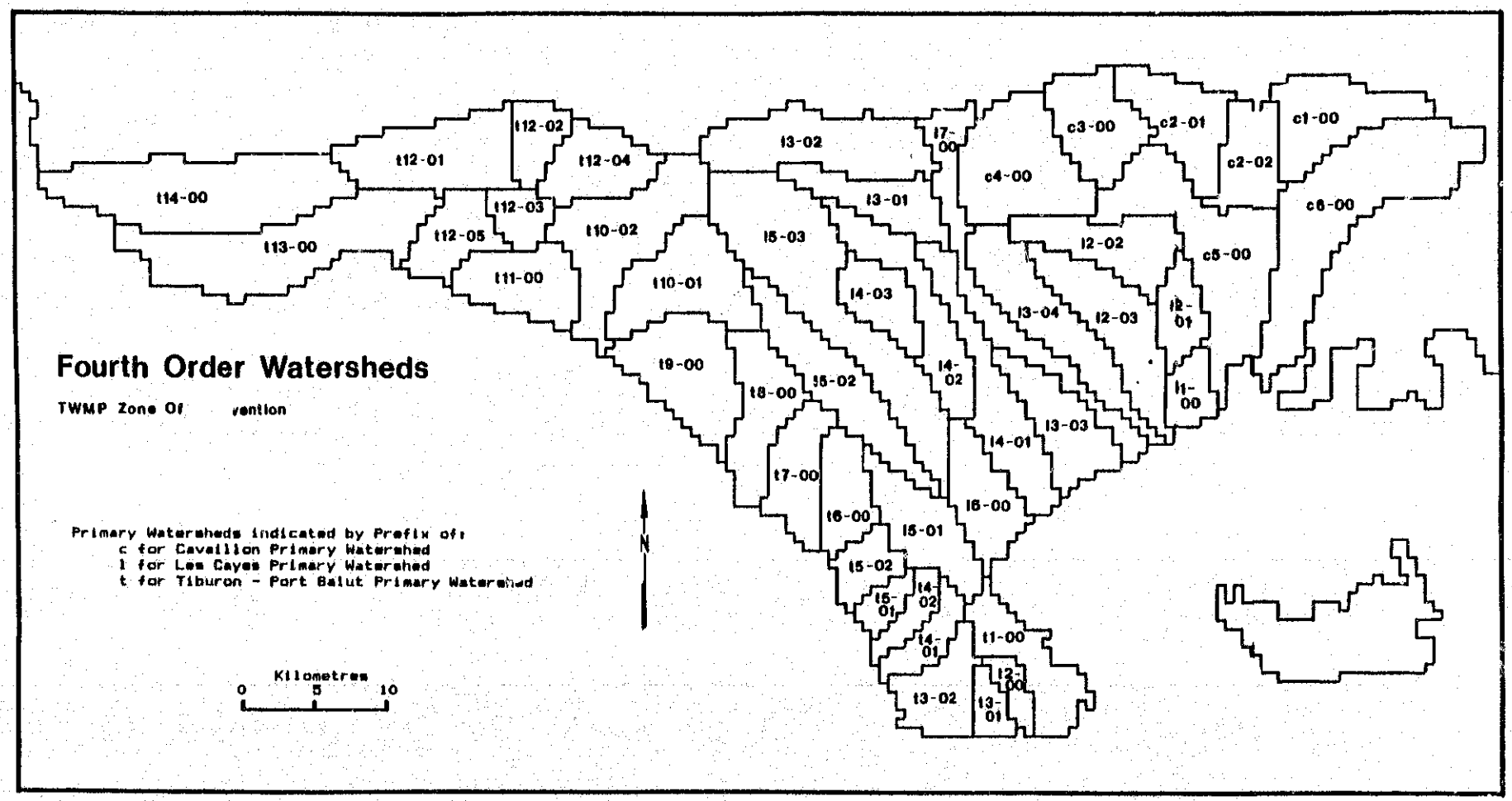
Map 1.


Primary Watersheds
TWMP Zone Of Intervention
Tiburon - Port Salut 22-00
Les Cayes 21-00
Cavaillon 20-00
Tiburon
Derriere Morne
Les Anglais
Chardonniere
Labbey
Les Coteaux
Roche à Bateau
Port Salut
Camp Perrin
Maniche
Torbeck
Les Cayes
Saint Jean Sud
Cavaillon
Towns
Paved Roads
Gravel Roads
Jeep Tracks
N
Kilometres
0 5 10

Map 2.

Figure 1.


Primary Watersheds
TWMP Zone Of Intervention
Hectares (Thousands)
70
60
50
40
30
20
10
0
Cavaillon
Les Cayes
Tiburon - Port Salut


Fourth Order Watersheds
TWMP Zone Of vention
Primary Watersheds indicated by Prefix of:
c for Cavaillon Primary Watershed
l for Les Cayes Primary Watershed
t for Tiburon - Port Salut Primary Watershed
N
Kilometres
0 5 10
t14-00
t13-00
t12-01
t12-02
t12-03
t12-04
t12-05
t11-00
t10-02
t10-01
t9-00
t8-00
t7-00
t6-00
t5-02
t5-03
t5-01
t4-03
t4-02
t4-01
t3-02
t3-01
t3-04
t3-03
t2-02
t2-03
t2-01
t1-00
c4-00
c3-00
c2-01
c2-02
c1-00
c6-00
c5-00

Map 3.

Figure 2.

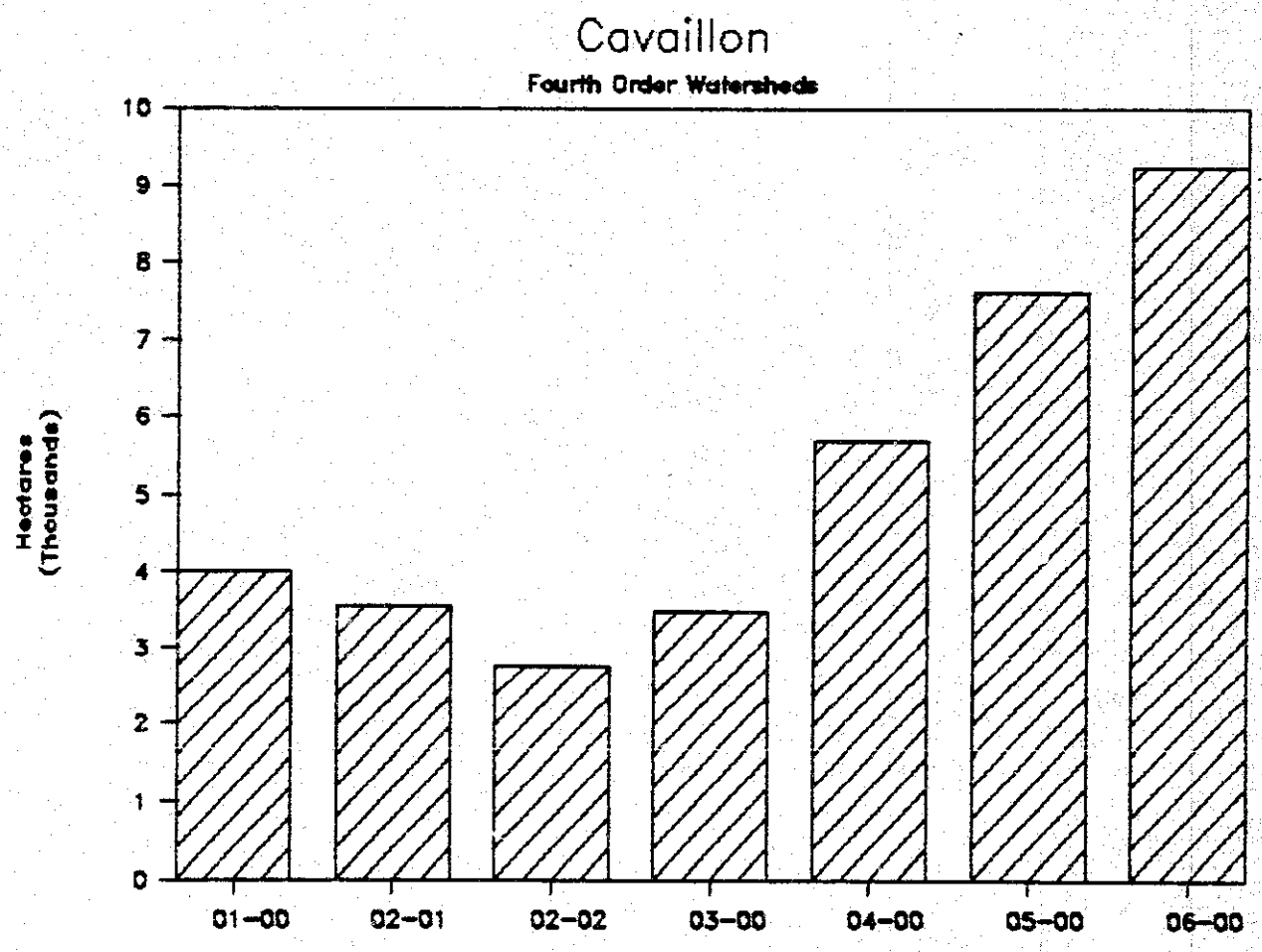

Cavaillon
Fourth Order Watersheds
Hectares
(Thousands)
0
1
2
3
4
5
6
7
8
9
10
01-00
02-01
02-02
03-00
04-00
05-00
06-00

Figure 3.

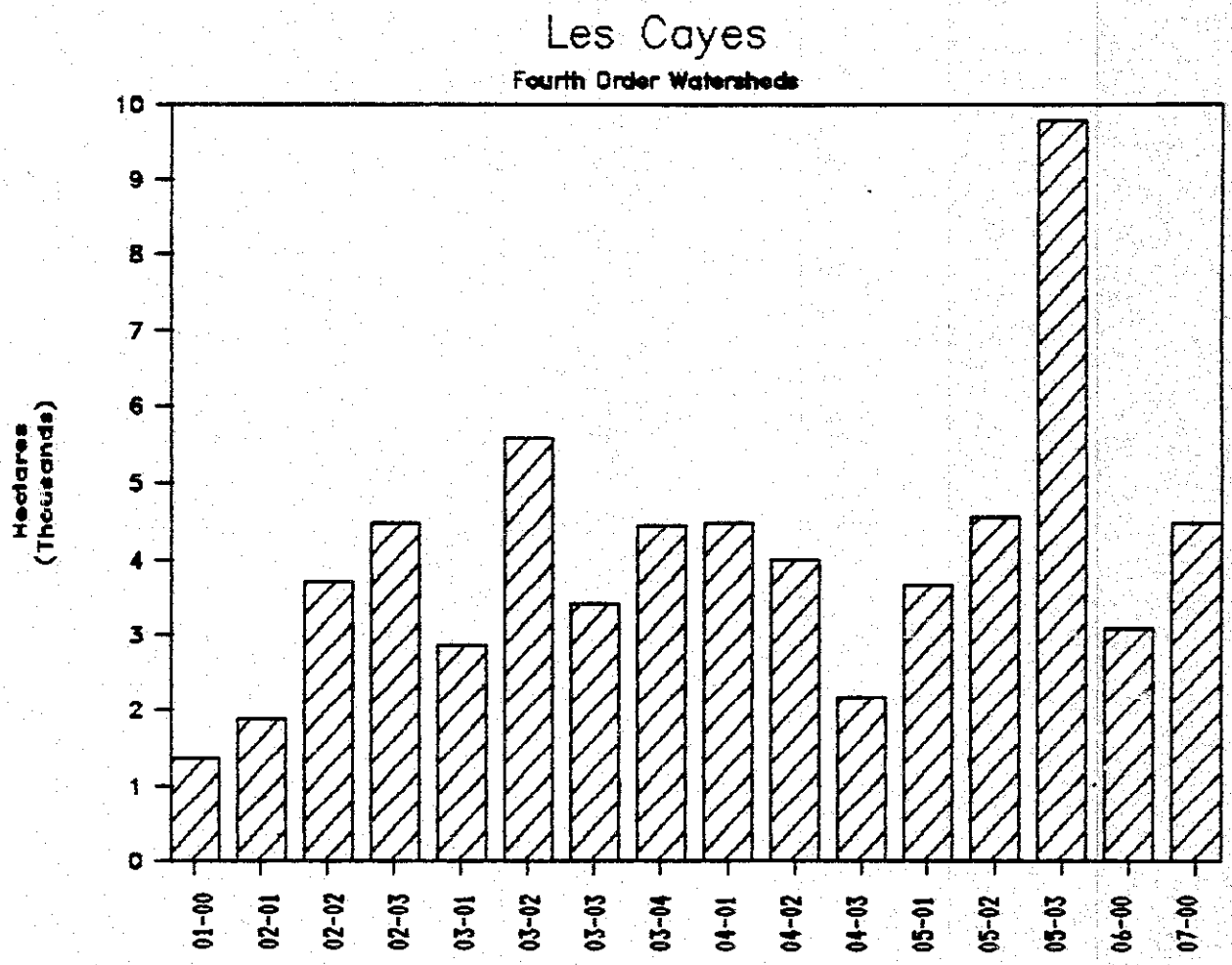
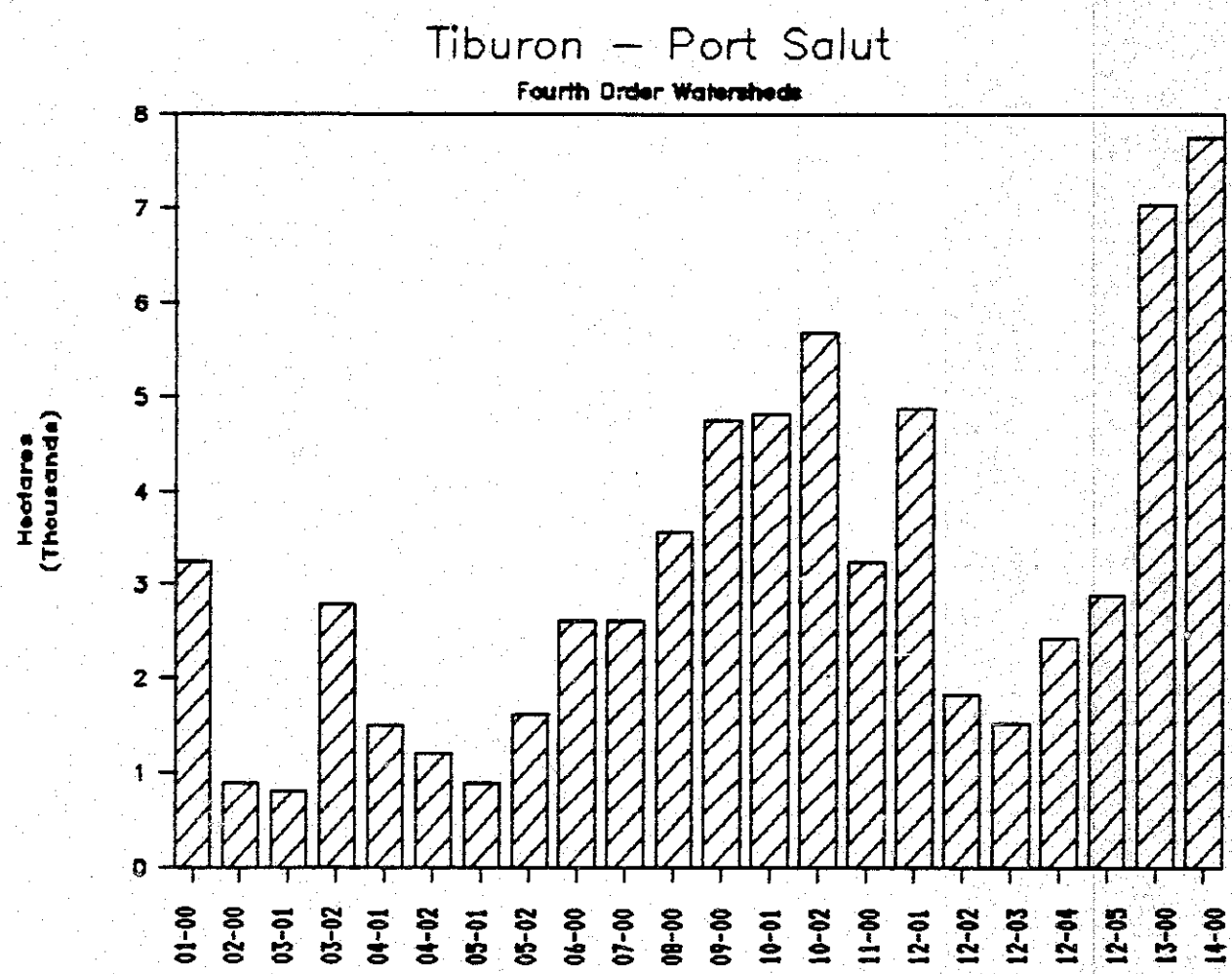
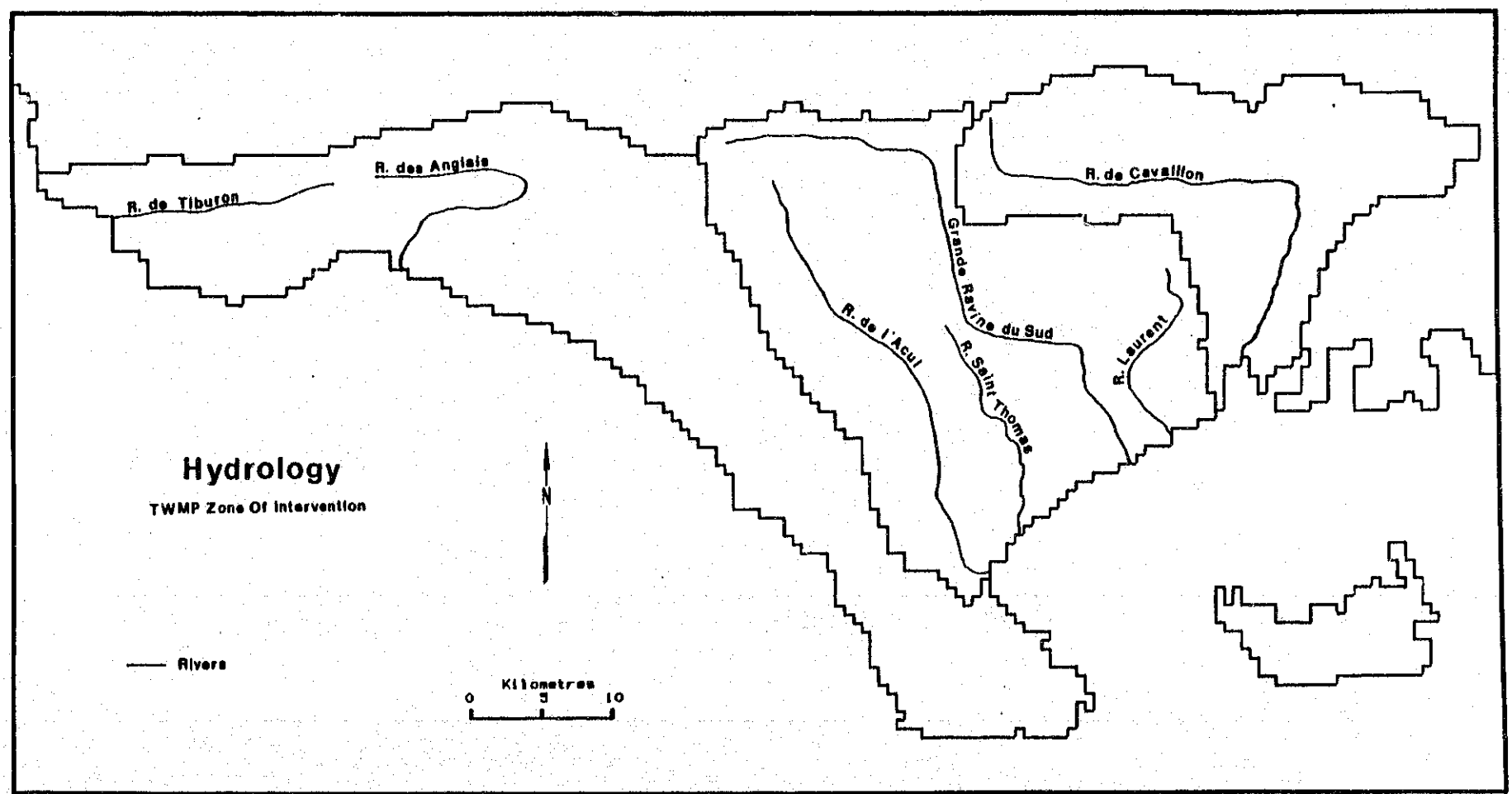
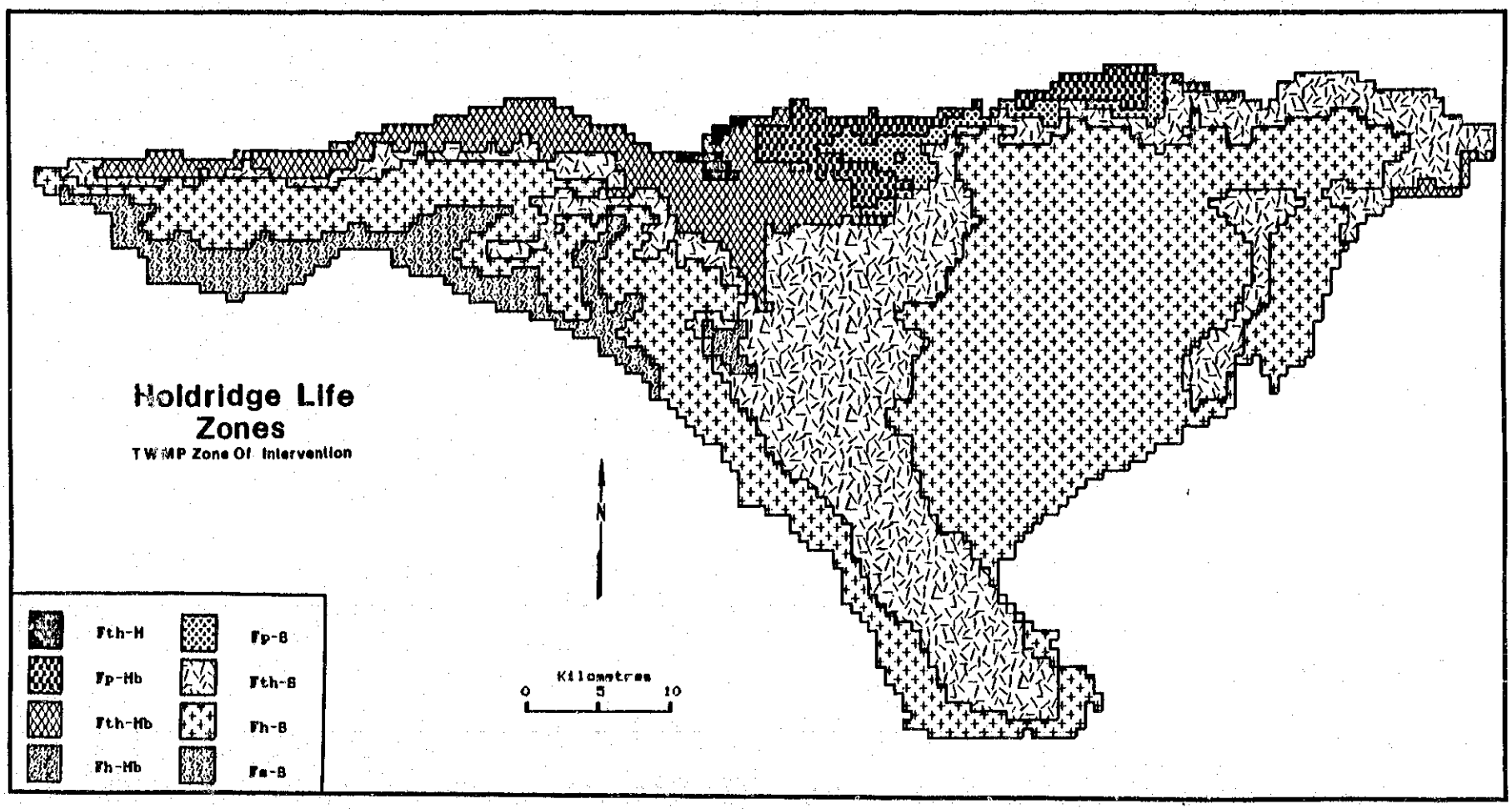

Les Cayes
Fourth Order Watersheds
Hectares
(Thousands)
0
1
2
3
4
5
6
7
8
9
10
01-00
02-01
02-02
02-03
03-01
03-02
03-03
03-04
04-01
04-02
04-03
05-01
05-02
05-03
06-00
07-00

Figure 4.


Tiburon – Port Salut
Fourth Order Watersheds
Hectares (Thousands)
0
1
2
3
4
5
6
7
8
01-00
02-00
03-01
03-02
04-01
04-02
05-01
05-02
06-00
07-00
08-00
09-00
10-01
10-02
11-00
12-01
12-02
12-03
12-04
12-05
13-00
14-00


Hydrology
TWMP Zone Of Intervention
Rivers
N
Kilometres
0
5
10
R. de Tiburon
R. des Anglais
R. de l'Acul
Grande Ravine du Sud
R. Saint Thomas
R. Laurent
R. de Cavaillon

Map 4.


Holdridge Life Zones
TWMP Zone Of Intervention
N
Kilometres
0
5
10
Fth-M
Fp-Mb
Fth-Mb
Fh-Mb
Fp-S
Fth-S
Fh-S
Fa-S

Map 5.

Table 1:
Holdridge Life Zone Codes

Fth-M	Haute altitude, zone montagneuse trés humide. Plus de 2000 métres, forêts de pins.
Fp-Mb	Basse altitude, zone montagneuse, forestiére, pluviale.
Fth-Mb	Basse altitude, zone montagneuse, forestière, pluviale 800-2000 métres.
Fh_Mb	Basse altitude, zone montagneuse, humide, forestière entre 800 et 2000 métres.
Fp-S	Zone forestiére, pluviale, sous-tropicale.
Fth-S	Trés humide, zone forestière sous-tropicale.
Fh-S	Humide, zone forestiére sous-tropicale.
Fs-S	Forêt sèche, sous-tropicale, basse altitude, généralement au-dessous de 400 mètre. Diverses variétes de cactus.

Figure 5.

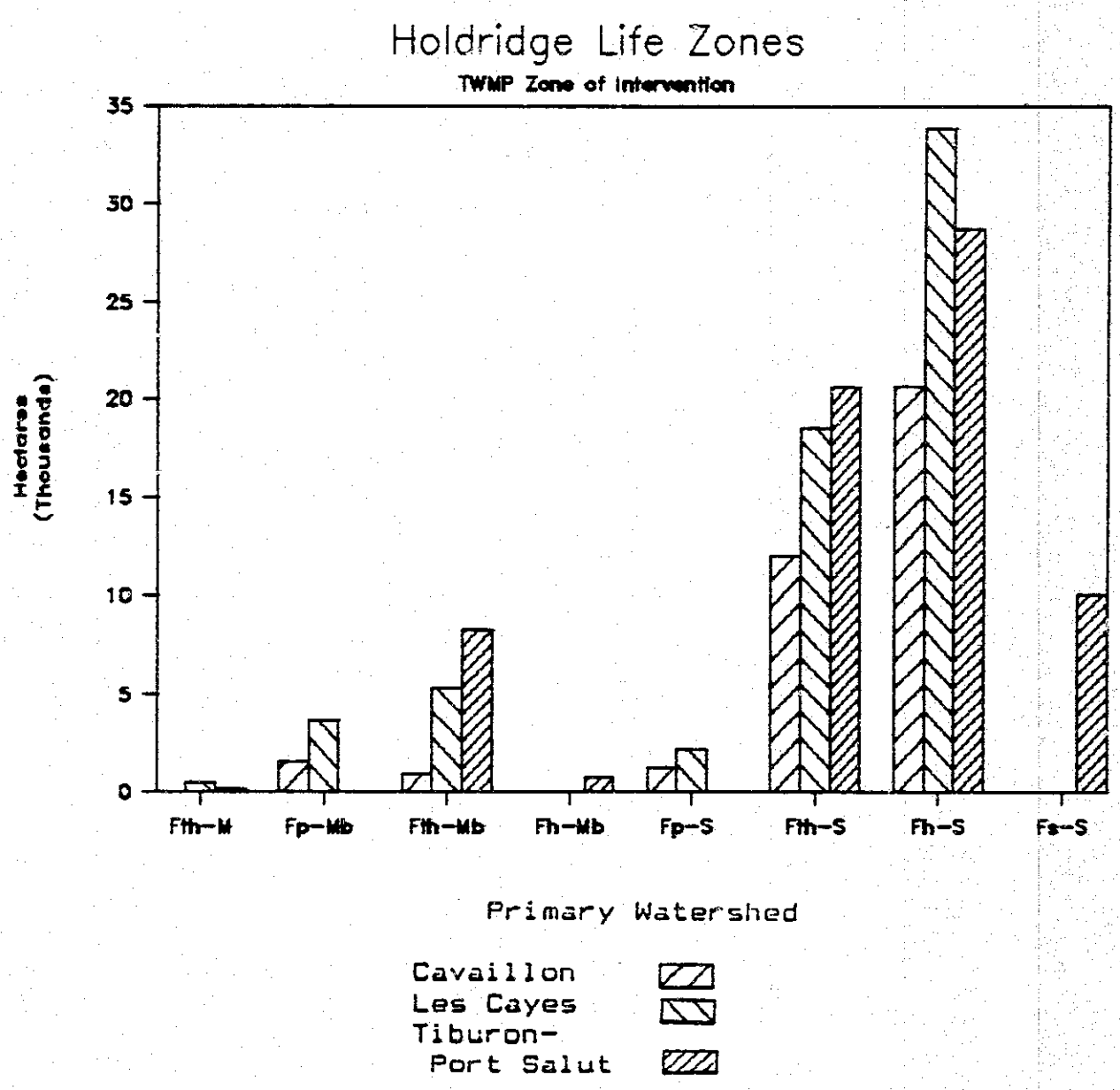

Holdridge Life Zones
TWMP Zone of Intervention
Hectares (Thousands)
35
30
25
20
15
10
5
0
Fth-M
Fp-Mb
Fth-Mb
Fh-Mb
Fp-S
Fth-S
Fh-S
Fs-S
Primary Watershed
Cavaillon
Les Cayes
Tiburon-
Port Salut

Table 2:
Holdridge Life Zones by Fourth Order Watershed
Cavaillon Primary Watershed
Primary Watershed Code 20-00
(Areas in hectares)

	01-00	02-01	02-02	03-00	04-00	05-00	06-00	Totals
Fp-Mb	0	414	0	918	180	0	0	1512
Fth-Mb	0	225	0	0	0	0	657	882
Fp-S	0	315	0	387	495	0	0	1197
Fth-S	2331	1530	1323	657	756	2025	3420	12042
Fh-S	1656	1053	1449	1503	4248	5580	5148	20637
Totals	3987	3537	2772	3465	5679	7605	9225	36270

Table 3:
Holdridge Life Zones by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Areas in hectares)

	01-00	02-01	02-02	02-03	03-01	03-02	03-03	03-04	04-01	04-02
Fth-M	0	0	0	0	0	315	0	0	0	0
Fp-Mb	0	0	0	0	639	2709	0	0	0	0
Fth-Mb	0	0	0	0	612	1044	0	0	0	306
Fp-S	0	0	0	0	423	1359	0	0	0	9
Fth-S	657	117	0	0	1188	153	0	0	504	1557
Fh-S	702	1746	3708	4473	0	0	3393	4437	3978	2115
Totals	1359	1863	3708	4473	2862	5580	3393	4437	4482	3987

	04-03	05-01	05-02	05-03	06-00	07-00	Totals
Fth-M	0	0	0	108	0	0	423
Fp-Mb	0	0	0	0	0	261	3609
Fth-Mb	0	0	189	3168	0	0	5319
Fp-S	0	0	0	0	0	324	2115
Fth-S	1881	2952	3924	4527	0	1044	18504
Fh-S	279	693	432	1989	3078	2853	33876
Totals	2160	3645	4545	9792	3078	4482	63846

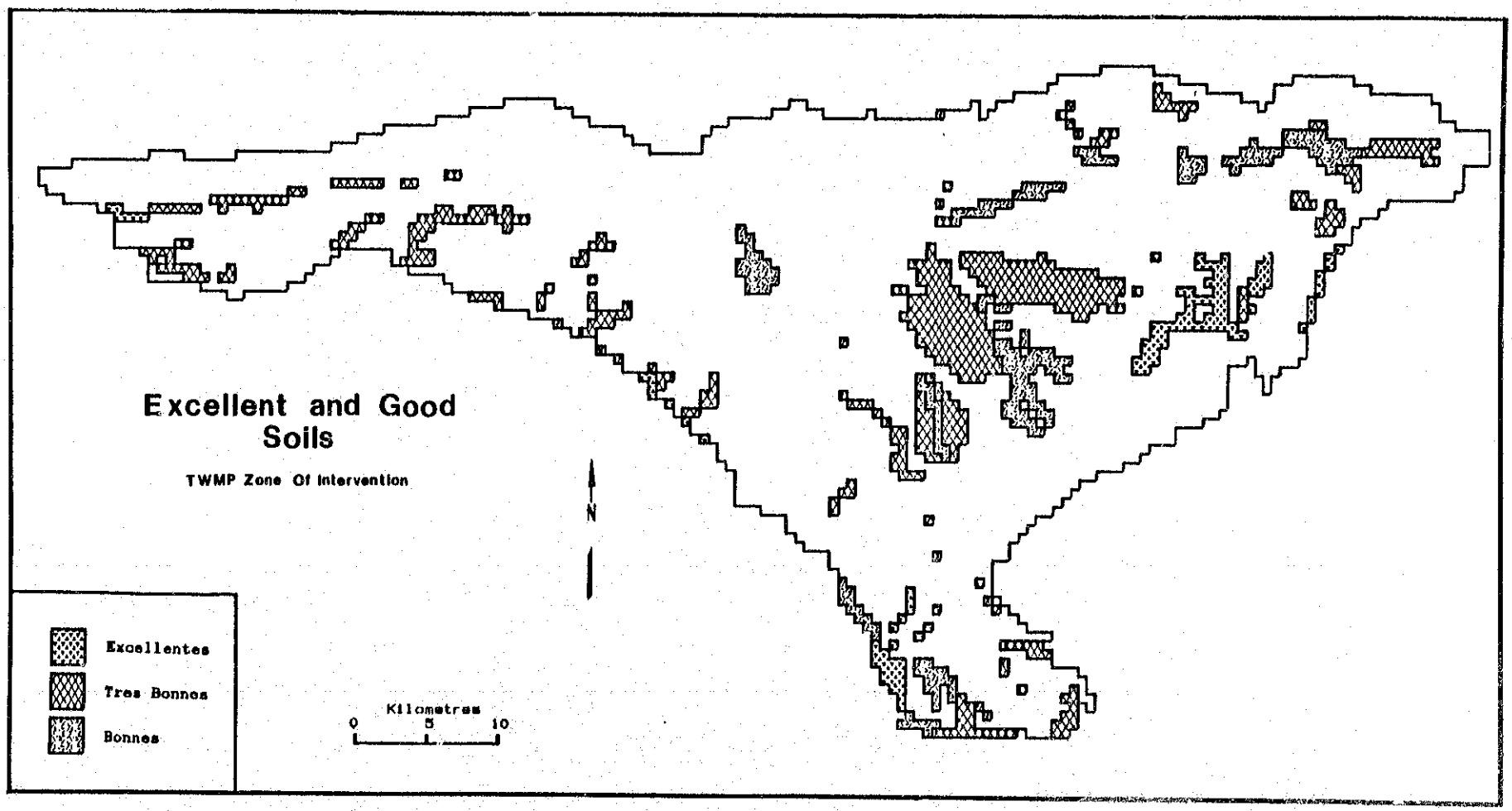
Table 4 :
Holdrige Life Zones by Fourth Order Watershed
Tiburon - Port Salut Primery Watershed
Primary Watershed Code 22-00
(Areas in Hectares)

	01-00	02-00	03-01	03-02	04-01	04-02	05-01	05-02	06-00
Fth-M	0	0	0	0	0	0	0	0	0
Fth-Mb	0	0	0	0	0	0	0	0	0
Fh-Mb	0	0	0	0	0	0	0	0	0
Fth-S	1674	738	432	1260	972	801	477	1098	2187
Fh-S	1584	144	369	1539	522	396	405	513	414
Fs-S	0	0	0	0	0	0	0	0	0
Totals	3258	882	801	2799	1494	1197	882	1611	2601

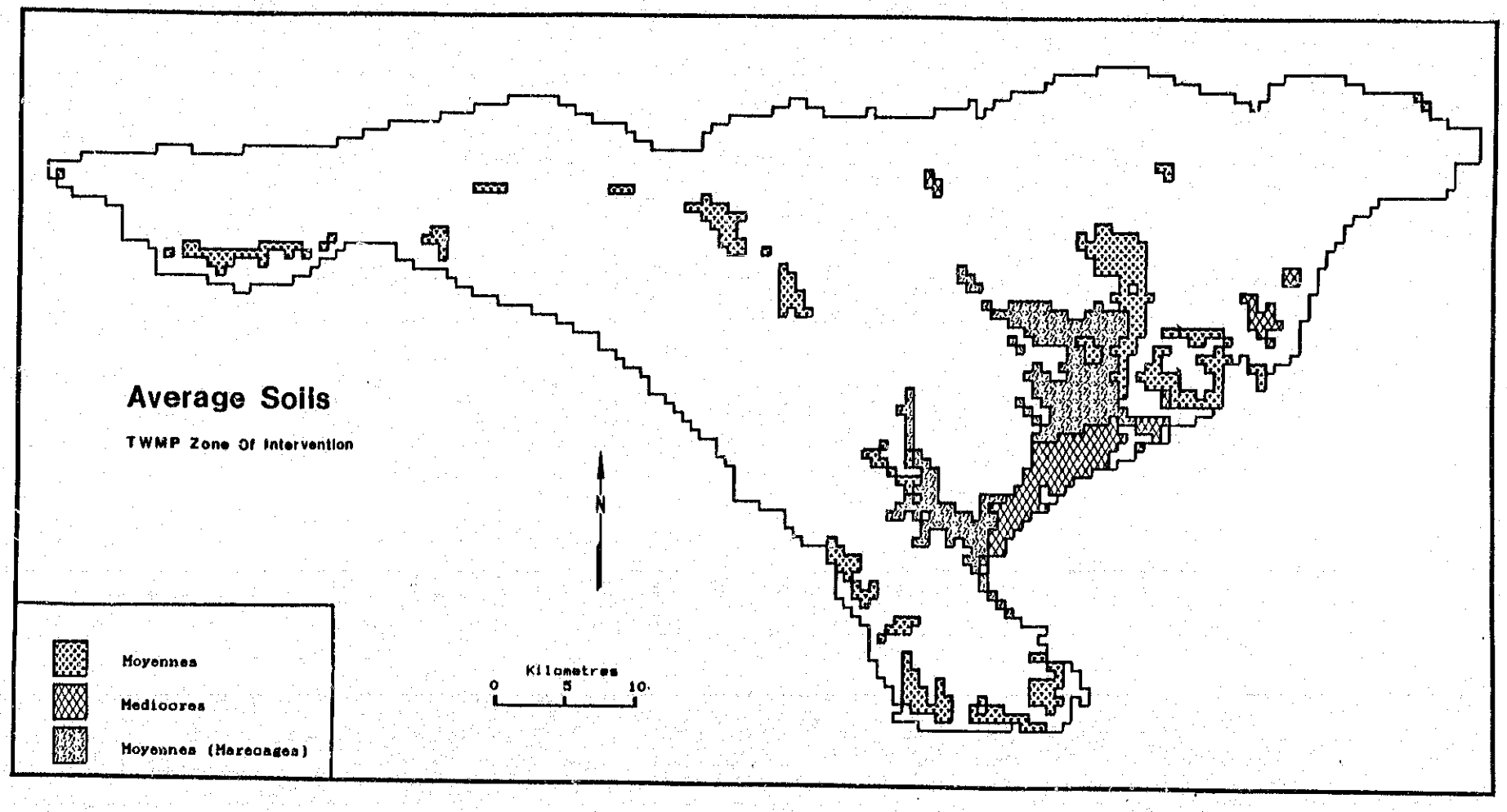
	07-00	08-00	09-00	10-01	10-02	11-00	12-01	12-02	12-03
Fth-M	0	0	0	0	126	0	0	0	0
Fth-Mb	0	0	0	576	1053	0	2268	1242	0
Fh-Mb	0	189	441	72	0	0	0	0	0
Fth-S	1494	2250	540	1224	1251	180	1107	270	414
Fh-S	1116	1116	3204	2547	1998	1647	1503	297	972
Fs-S	0	0	567	405	1260	1413	0	0	126
Totals	2610	3555	4752	4824	5688	3240	4878	1809	1512

Table 4 (Continued):
Holdrige Life Zones by Fourth Order Watershed
Tiburon - Port Salut Primery Watershed
Primary Watershed Code 22-00
(Continued)
(Areas in Hectares)

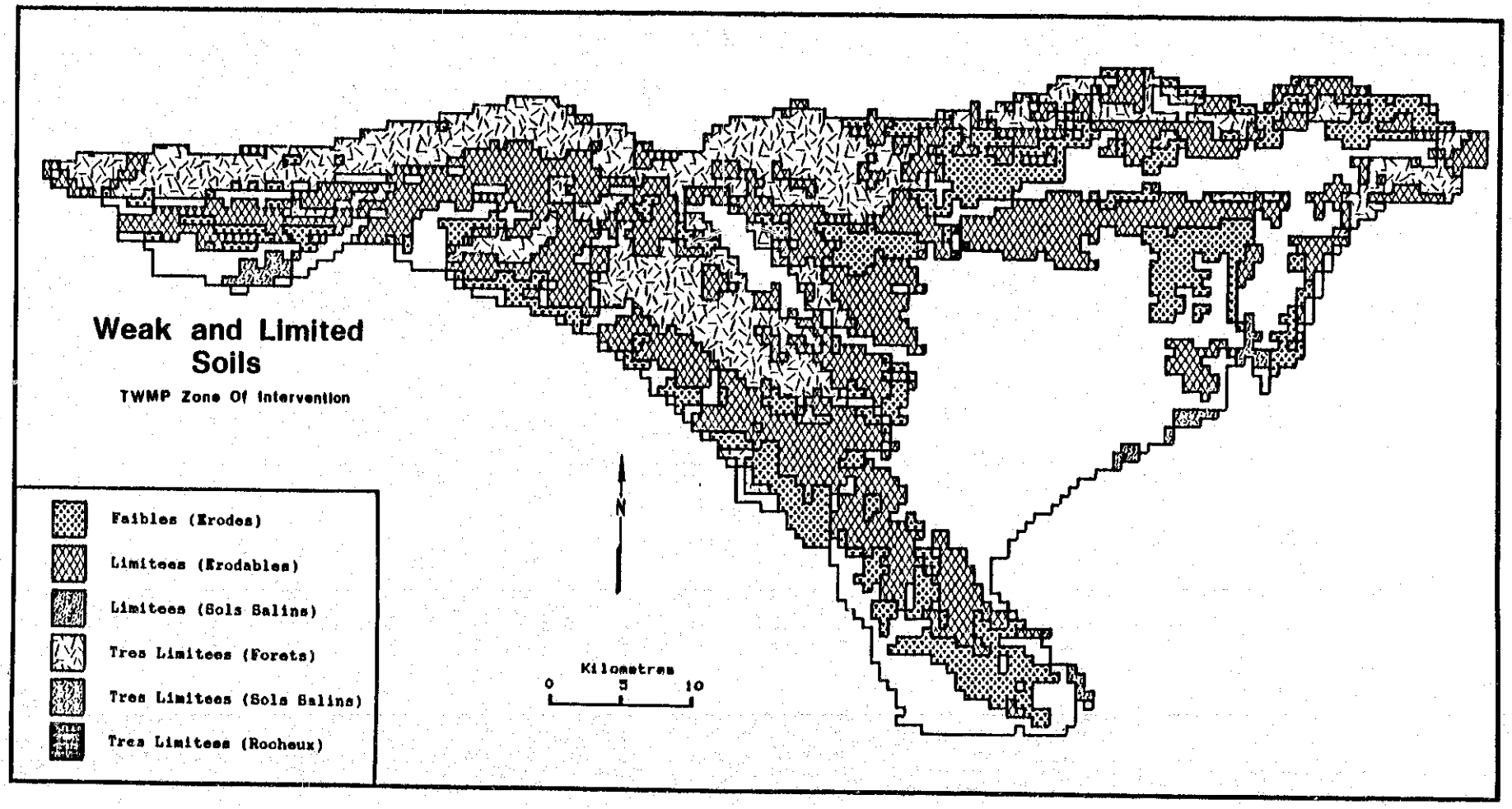
	12-04	12-05	13-00	14-00	Totals
Fth-M	0	0	0	0	126
Fth-Mb	0	1575	0	1539	8253
Fh-Mb	0	0	0	0	702
Fth-S	108	864	0	1233	20574
Fh-S	648	441	3015	4338	28728
Fs-S	1656	0	4023	648	10098
Totals	2412	2880	7038	7758	68481


Excellent and Good Soils
TWMP Zone Of Intervention
N
Excellentes
Tres Bonnes
Bonnes
Kilometres
0
5
10

Map 6.


Average Soils
TWMP Zone Of Intervention
N
Kilometres
0
5
10
Moyennes
Mediocres
Moyennes (Marecages)

Map 7.


Weak and Limited Soils
TWMP Zone Of Intervention
Faibles (Erodes)
Limitees (Erodables)
Limitees (Sols Salins)
Tres Limitees (Forets)
Tres Limitees (Sols Salins)
Tres Limitees (Rocheux)
N
Kilometres
0
5
10

Map 8.

Figure 6.

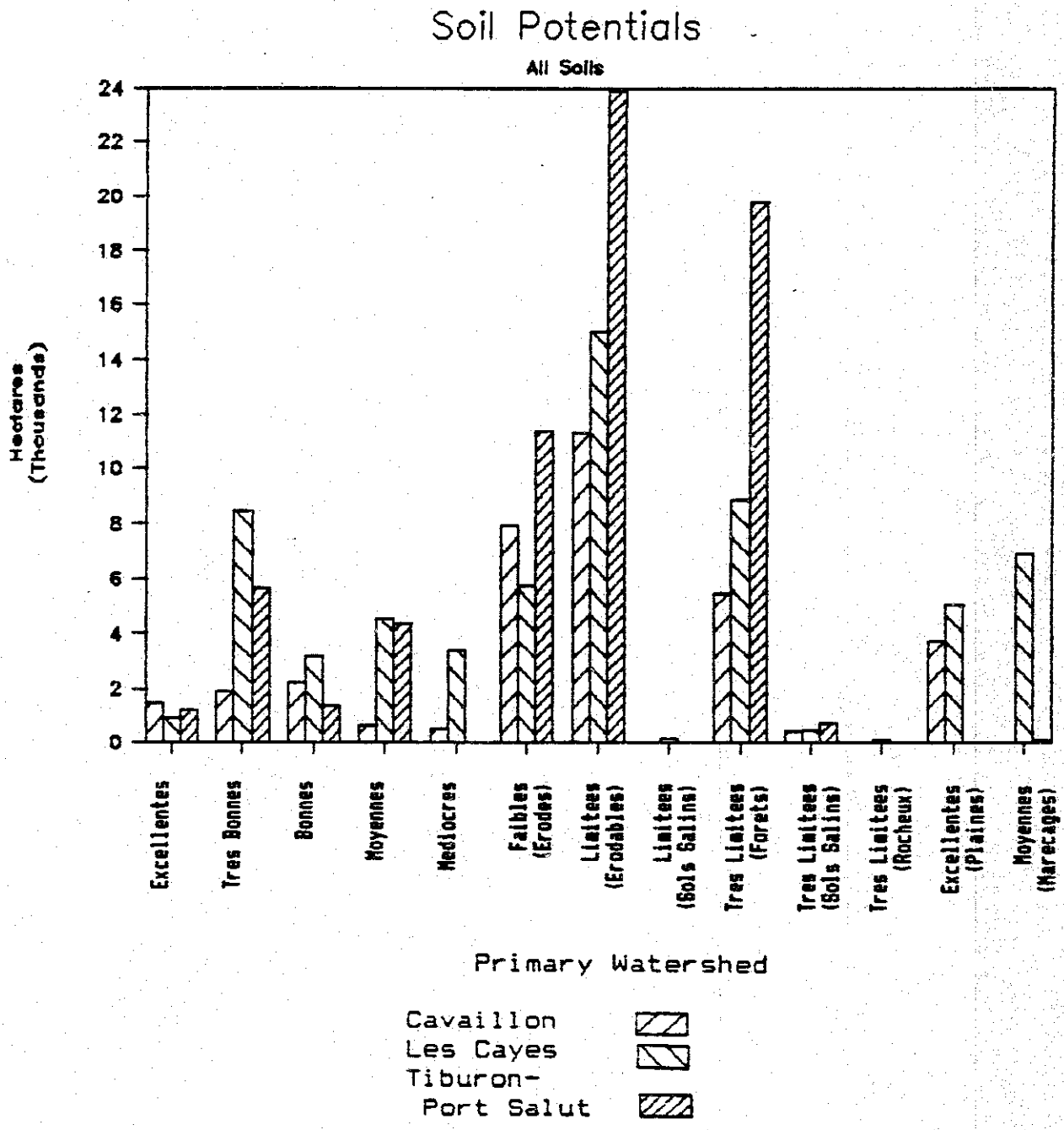

Soil Potentials
All Soils
Hectares (Thousands)
24
22
20
18
16
14
12
10
8
6
4
2
0
Excellentes
Tres Bonnes
Bonnes
Moyennes
Mediocres
Faibles (Erodes)
Limitees (Erodables)
Limitees (Sols Salins)
Tres Limitees (Forets)
Tres Limitees (Sols Salins)
Tres Limitees (Rocheux)
Excellentes (Plaines)
Moyennes (Marecages)
Primary Watershed
Cavaillon
Les Cayes
Tiburon-Port Salut

Figure 7.

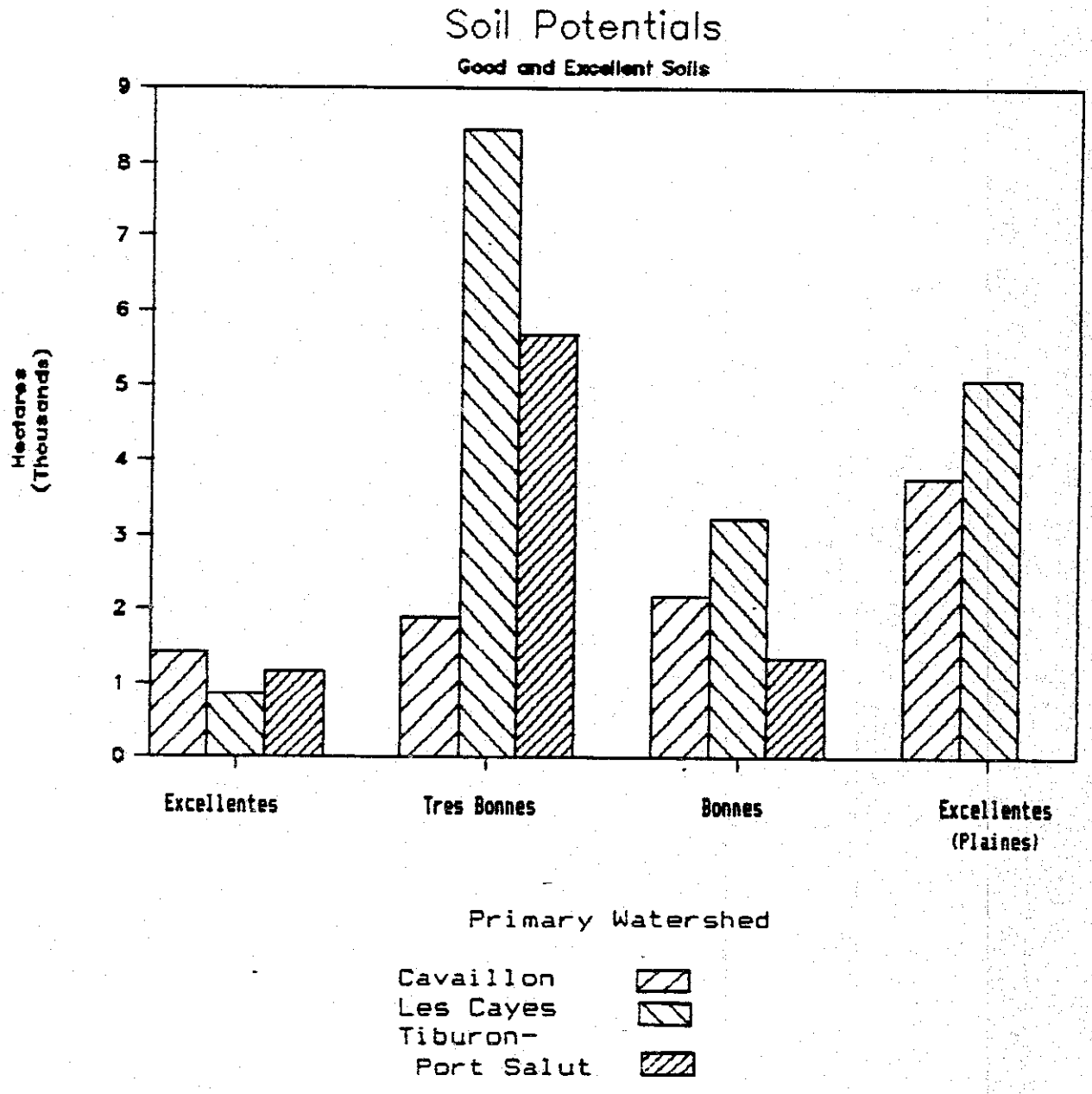

Soil Potentials
Good and Excellent Soils
Hectares (Thousands)
0
1
2
3
4
5
6
7
8
9
Excellentes
Tres Bonnes
Bonnes
Excellentes (Plaines)
Primary Watershed
Cavaillon
Les Cayes
Tiburon-Port Salut

Figure 8.

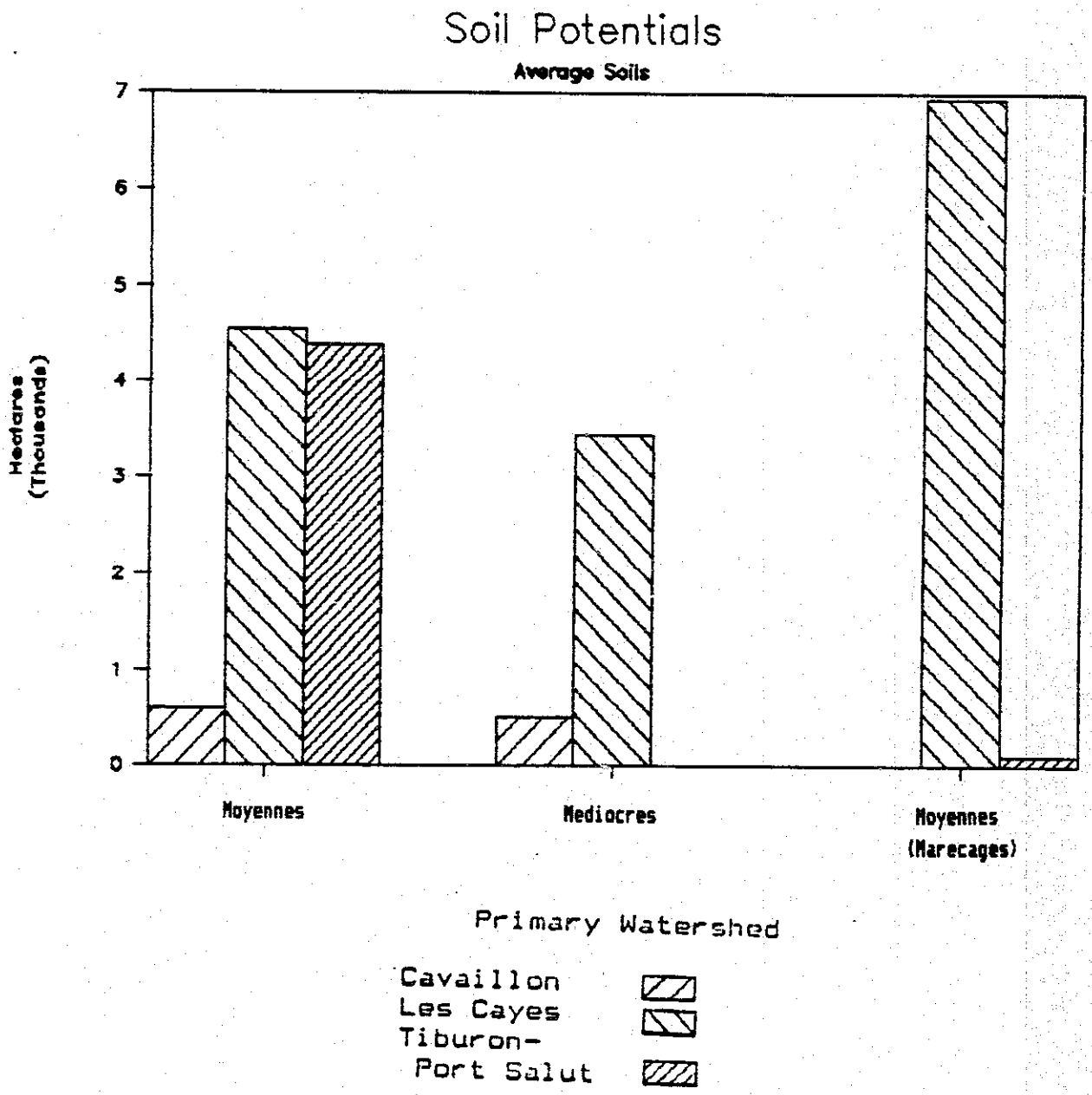

Soil Potentials
Average Soils
Hectares (Thousands)
0
1
2
3
4
5
6
7
Moyennes
Mediocres
Moyennes (Marecages)
Primary Watershed
Cavaillon
Les Cayes
Tiburon-
Port Salut

Figure 9.

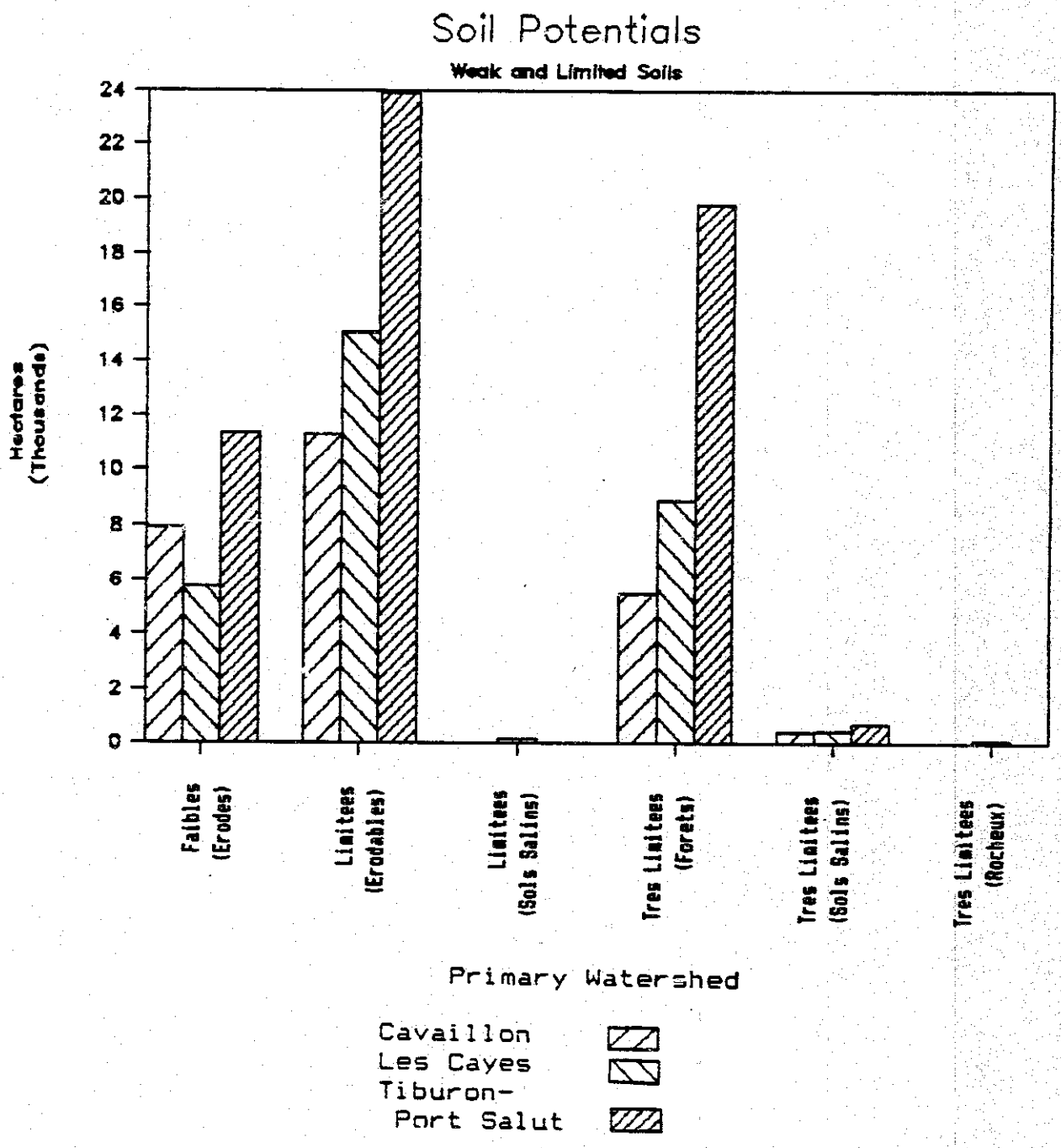

Soil Potentials
Weak and Limited Soils
Hectares (Thousands)
24
22
20
18
16
14
12
10
8
6
4
2
0
Faibles (Erodes)
Limitees (Erodables)
Limitees (Sols Salins)
Tres Limitees (Forets)
Tres Limitees (Sols Salins)
Tres Limitees (Rocheux)
Primary Watershed
Cavaillon
Les Cayes
Tiburon-
Port Salut

Table 5:
Soil Potential by Fourth Order Watershed
Cavaillon Primary Watershed
Primary Watershed Code 20-00
(Area in hectares)

	01-00	02-01	02-02	03-00	04-00	05-00	06-00	Totals
Lacs et Rivieres	18	36	126	0	0	225	360	765
Excellentes	0	0	0	0	0	1089	342	1431
Tres Bonnes	117	261	0	261	0	216	1035	1890
Bonnes	504	180	387	261	513	99	252	2196
Moyennes	54	0	0	0	0	477	63	594
Mediocres	0	0	0	0	0	198	306	504
Faibles (Erodes)	1305	369	468	441	2079	1980	1242	7884
Limitees (Erodables)	1107	1404	837	1044	2160	2034	2745	11331
Tres Limitees (Forets)	477	1080	405	1053	603	9	1872	5499
Tres Limitees (Sols Salins)	0	0	0	0	0	297	126	423
Excellentes (Plaines)	405	207	549	405	324	981	882	3753
Totals	3987	3537	2772	3465	5679	7605	9225	36270

Table 6:
Soil Potential by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Area in Hectares)

	01-00	02-01	02-02	02-03	03-01	03-02	03-03	03-04
Lacs et Rivieres	0	0	0	54	0	0	0	0
Excellentes	0	477	0	0	0	0	0	387
Tres Bonnes	0	0	117	1458	108	0	18	1296
Bonnes	0	0	0	90	0	0	702	0
Moyennes	423	270	1143	288	0	0	0	1125
Mediocres	72	0	0	135	90	18	1377	90
Faibles (Erodes)	0	819	729	0	279	360	0	72
Limitees (Erodables)	477	297	1719	459	1044	1134	0	369
Limitees (Sols Salins)	0	0	0	0	0	0	45	0
Tres Limitees (Forets)	0	0	0	0	1332	4068	0	0
Tres Limitees (Sols Salins)	333	0	0	9	0	0	0	90
Tres Limitees (Rocheux)	0	0	0	0	9	0	0	0
Excellentes (Plaines)	54	0	0	126	0	0	0	441
Moyennes (Marecages)	0	0	0	1782	0	0	1251	567
Urbaine	0	0	0	72	0	0	0	0
Totals	1359	1863	3708	4473	2862	5580	3393	4437

Table 6 (Continued)
Soil Potential by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Area in Hectares)

	04-01	04-02	04-03	05-01	05-02	05-03	06-00	07-00	Totals
Lacs et Rivieres	54	0	0	126	0	0	36	405	675
Excellentes	0	0	0	0	0	0	0	0	864
Tres Bonnes	1377	1764	360	72	531	711	315	324	8451
Bonnes	405	9	0	0	180	927	0	909	3222
Moyennes	0	0	0	306	252	756	0	0	4563
Mediocres	711	0	0	0	0	0	657	288	3438
Faibles (Erodes)	63	828	189	306	405	972	0	720	5742
Limitees (Erodables)	108	558	1593	1602	1782	3375	0	522	15039
Limitees (Sols Salins)	0	0	0	0	0	0	0	108	153
Tres Limitees (Forets)	0	234	0	0	1179	1863	0	180	8856
Tres Limitees (Sols Salins)	0	0	0	0	0	0	0	0	432
Tres Limitees (Rocheux)	9	0	0	0	0	0	0	72	90
Excellentes (Plaines)	1593	594	18	45	27	837	1359	0	5094
Moyennes (Marecages)	81	0	0	1188	189	351	711	819	6939
Urbaine	81	0	0	0	0	0	0	135	288
Totals	4482	3987	2160	3645	4545	9792	3078	4482	63846

Table 7:
Soil Potential by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00

(Area in Hectares)

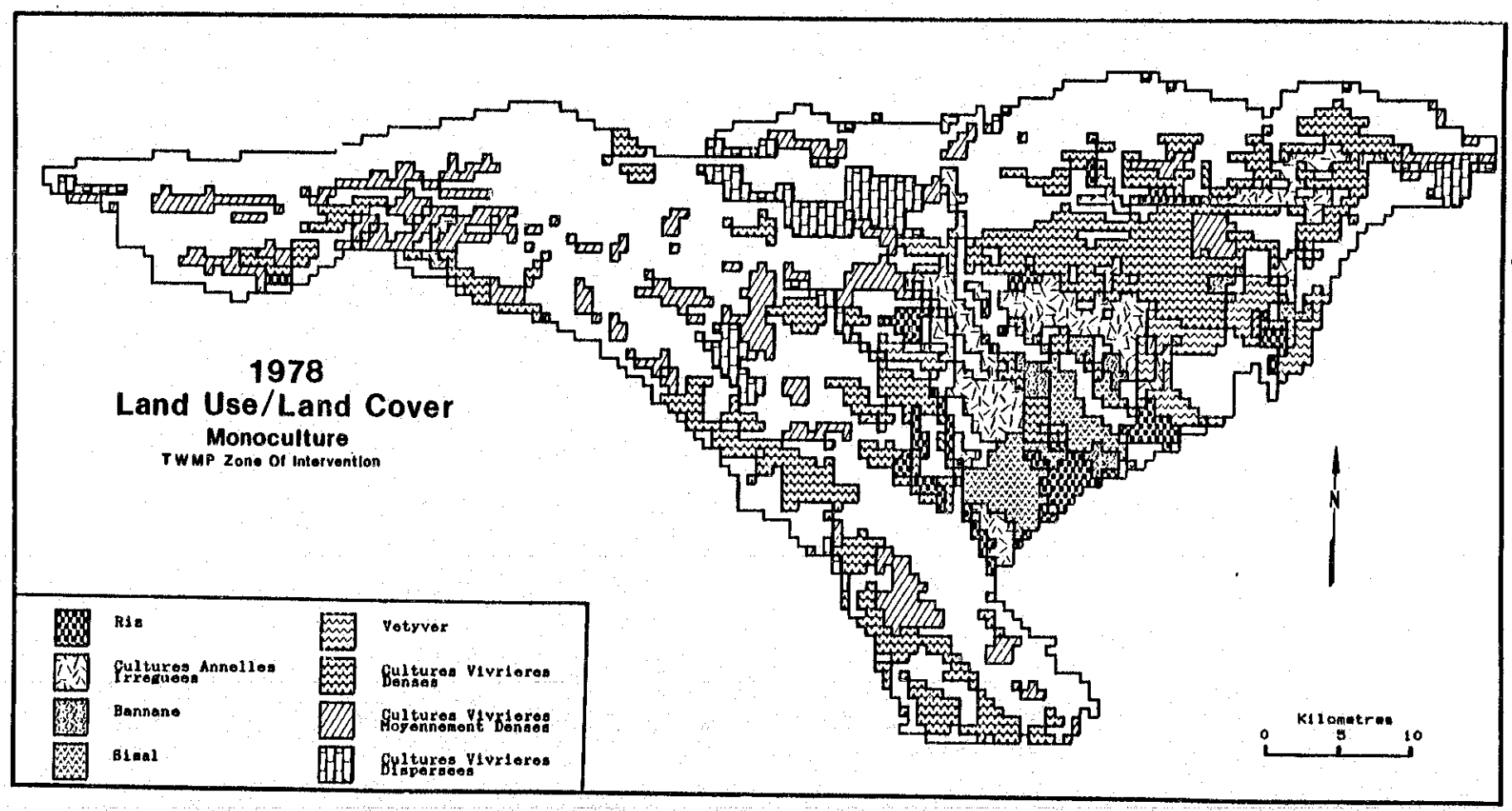
	01-00	02-00	03-01	03-02	04-01	04-02	05-01	05-02	06-00
Lacs et Rivieres	9	0	0	0	0	0	0	0	0
Excellentes	0	0	0	180	261	279	27	0	0
Tres Bonnes	675	99	162	360	0	0	0	0	171
Bonnes	0	0	99	675	81	9	225	153	0
Moyennes	657	144	234	720	117	198	108	369	72
Faibles (Erodes)	1152	585	306	630	504	468	216	450	576
Limitees (Erodables)	486	54	0	234	531	243	306	639	1782
Tres Limitees (Forets)	0	0	0	0	0	0	0	0	0
Tres Limitees (Sols Salins)	171	0	0	0	0	0	0	0	0
Moyennes (Marecages)	108	0	0	0	0	0	0	0	0
Totals	3258	882	801	2799	1494	1197	882	1611	2601

Table 7 (Continued)
Soil Potential by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Area in Hectares)

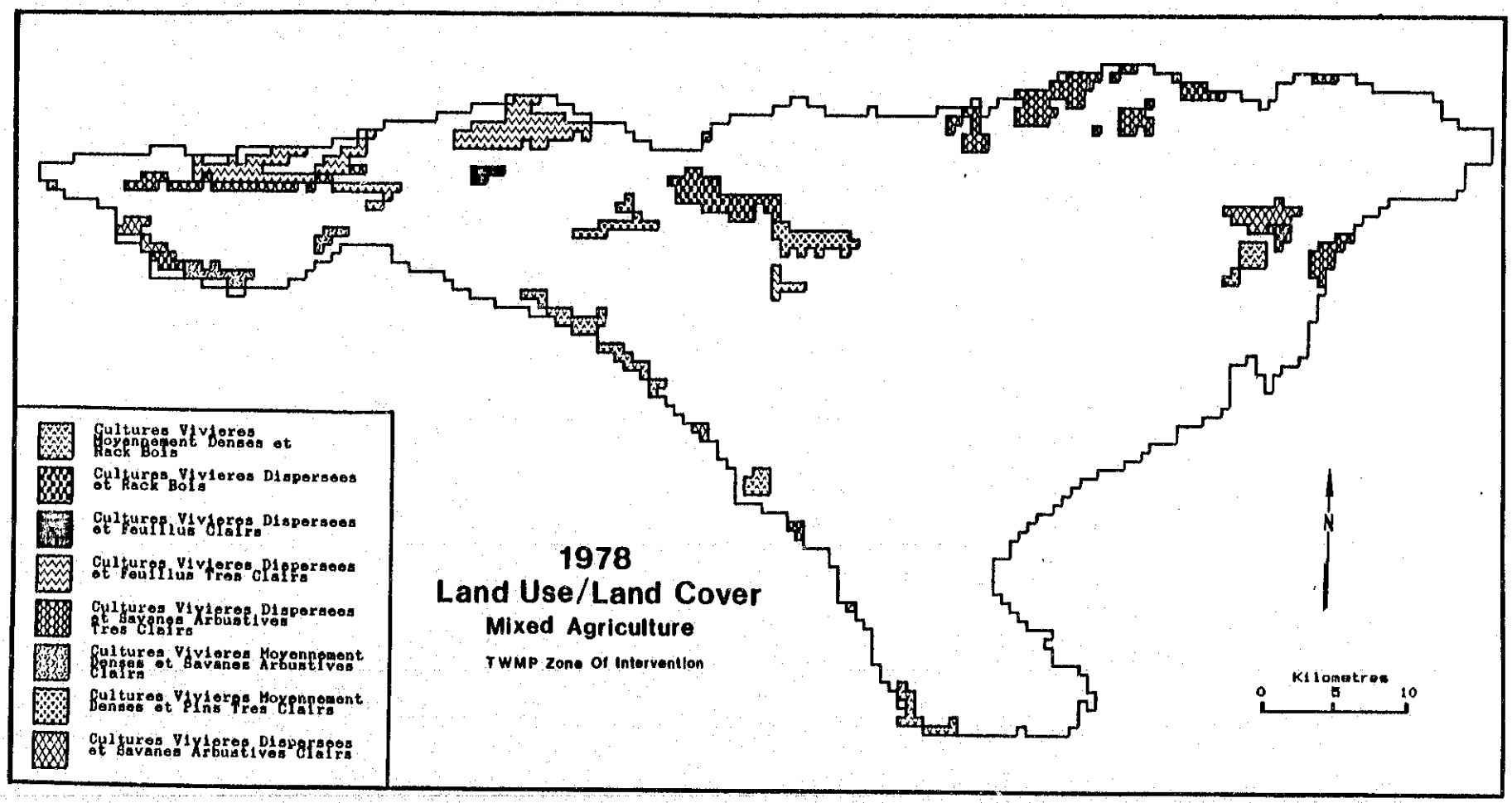
	07-00	08-00	09-00	10-01	10-02	11-00	12-01	12-02	12-03
Lacs et Rivieres	0	0	0	0	0	0	0	0	0
Excellentes	0	0	216	0	0	0	0	0	0
Tres Bonnes	0	0	477	198	567	252	189	0	207
Bonnes	0	0	0	90	0	9	0	0	0
Moyennes	0	0	0	162	108	0	45	0	54
Faibles (Erodes)	1026	756	738	270	243	963	81	0	63
Limitees (Erodables)	1431	1188	2133	765	2835	1602	1296	567	900
Tres Limitees (Forets)	153	1611	1188	3339	1935	414	3267	1242	288
Tres Limitees (Sols Salins)	0	0	0	0	0	0	0	0	0
Moyennes (Marecages)	0	0	0	0	0	0	0	0	0
Totals	2610	3555	4752	4824	5688	3240	4878	1809	1512

Table 7 (Continued):
Soil Potential by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Area in Hectares)

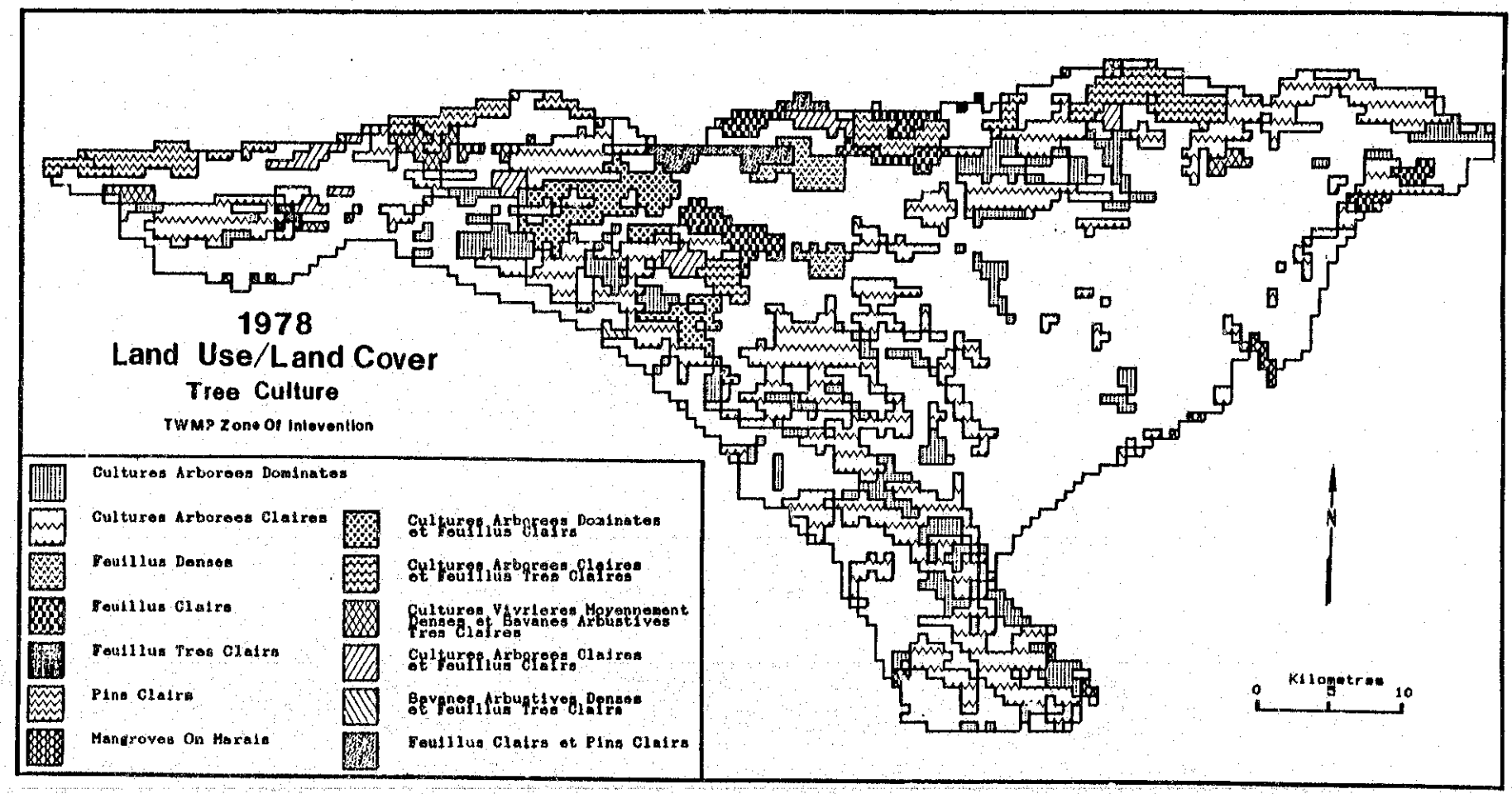
	12-04	12-05	13-00	14-00	Totals
Lacs et Rivieres	0	0	0	0	9
Excellentes	0	0	0	198	1161
Tres Bonnes	711	0	900	711	5679
Bonnes	0	0	0	0	1341
Moyennes	369	81	900	45	4383
Faibles (Erodes)	459	0	1125	747	11358
Limitees (Erodables)	567	1206	3123	2016	23904
Tres Limitees (Forets)	306	1593	450	4041	19827
Tres Limitees (Sols Salins)	0	0	540	0	711
Moyennes (Marecages)	0	0	0	0	108
Totals	2412	2880	7038	7758	68481


1978
Land Use/Land Cover
Monoculture
TWMP Zone Of Intervention
Riz
Cultures Annelles Irreguees
Bannane
Sisal
Vetyver
Cultures Vivrieres Denses
Cultures Vivrieres Moyennement Denses
Cultures Vivrieres Dispersees
N
Kilometres
0
5
10

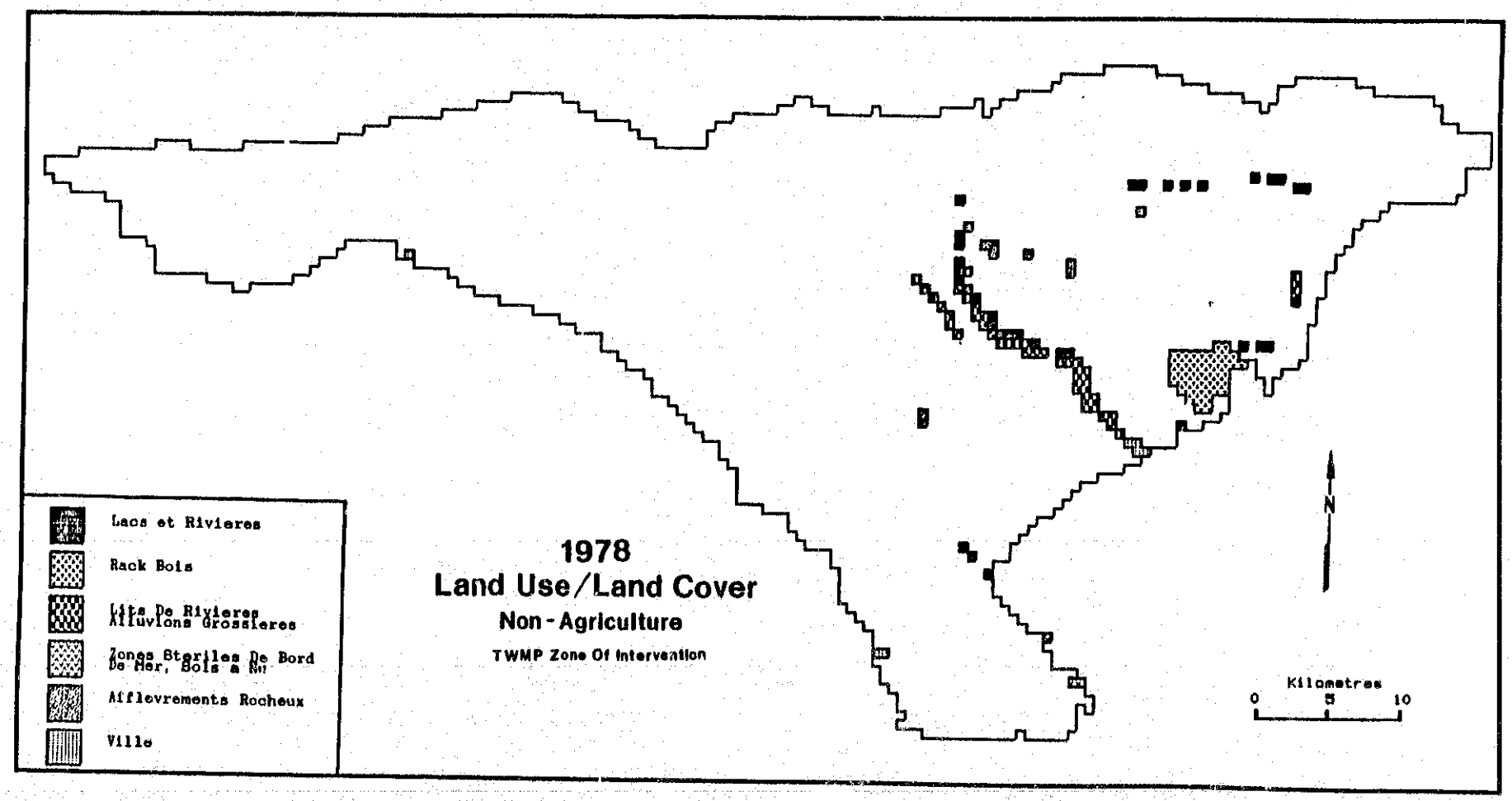
Map 9.


1978
Land Use/Land Cover
Mixed Agriculture
TWMP Zone Of Intervention
Cultures Vivieres Moyennement Denses et Rack Bois
Cultures Vivieres Dispersees et Rack Bois
Cultures Vivieres Dispersees et Feuillus Clairs
Cultures Vivieres Dispersees et Feuillus Tres Clairs
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs
Cultures Vivieres Moyennement Denses et Savanes Arbustives Clairs
Cultures Vivieres Moyennement Denses et Pins Tres Clairs
Cultures Vivieres Dispersees et Savanes Arbustives Clairs
N
Kilometres
0
5
10

Map 10.


1978
Land Use/Land Cover
Tree Culture
TWMP Zone Of Intervention
Cultures Arborees Dominates
Cultures Arborees Claires
Feuillus Denses
Feuillus Claire
Feuillus Tres Claire
Pins Claire
Mangroves On Marais
Cultures Arborees Dominates et Feuillus Claire
Cultures Arborees Claires et Feuillus Tres Claires
Cultures Vivrieres Moyennement Denses et Savanes Arbustives Tres Claires
Cultures Arborees Claires et Feuillus Claire
Savanes Arbustives Denses et Feuillus Tres Claire
Feuillus Claire et Pins Claire
N
Kilometres
0
5
10

Map 11.


1978
Land Use/Land Cover
Non - Agriculture
TWMP Zone Of Intervention
Lacs et Rivieres
Rack Bois
Lits De Rivieres Alluvions Grossieres
Zones Steriles De Bord De Mer, Sols a Nu
Affleurements Rocheux
Ville
N
Kilometres
0
5
10

Map 12.

Figure 10.

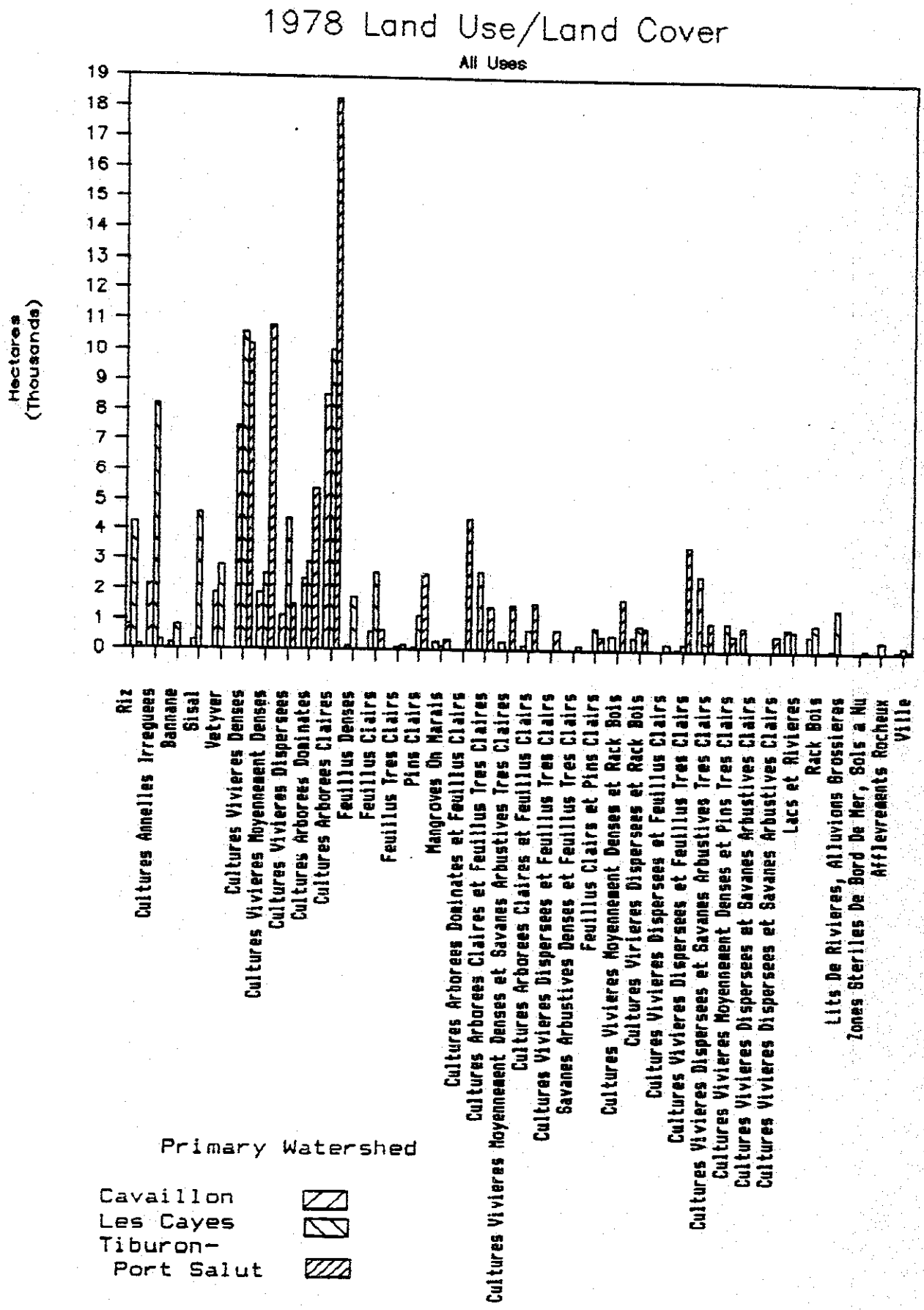

1978 Land Use/Land Cover
All Uses
Hectares (Thousands)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
Riz
Cultures Annelles Irrequees
Bannane
Sisal
Vetyver
Cultures Vivieres Denses
Cultures Vivieres Moyennement Denses
Cultures Vivieres Dispersees
Cultures Arborees Dominates
Cultures Arborees Claires
Feuillus Denses
Feuillus Clairs
Feuillus Tres Clairs
Pins Clairs
Mangroves On Marais
Cultures Arborees Dominates et Feuillus Clairs
Cultures Arborees Claires et Feuillus Tres Claires
Cultures Vivieres Moyennement Denses et Savanes Arbustives Tres Claires
Cultures Arborees Claires et Feuillus Clairs
Cultures Vivieres Dispersees et Feuillus Tres Clairs
Savanes Arbustives Denses et Feuillus Tres Clairs
Feuillus Clairs et Pins Clairs
Cultures Vivieres Moyennement Denses et Rack Bois
Cultures Virieres Dispersees et Rack Bois
Cultures Vivieres Dispersees et Feuillus Clairs
Cultures Vivieres Dispersees et Feuillus Tres Clairs
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs
Cultures Vivieres Moyennement Denses et Pins Tres Clairs
Cultures Vivieres Dispersees et Savanes Arbustives Clairs
Cultures Vivieres Dispersees et Savanes Arbustives Clairs
Lacs et Rivieres
Rack Bois
Lits De Rivieres, Alluvions Brossieres
Zones Sterilles De Bord De Mer, Sols a Nu
Affleurements Rocheux
Ville
Primary Watershed
Cavaillon
Les Cayes
Tiburon-
Port Salut

Figure 11.

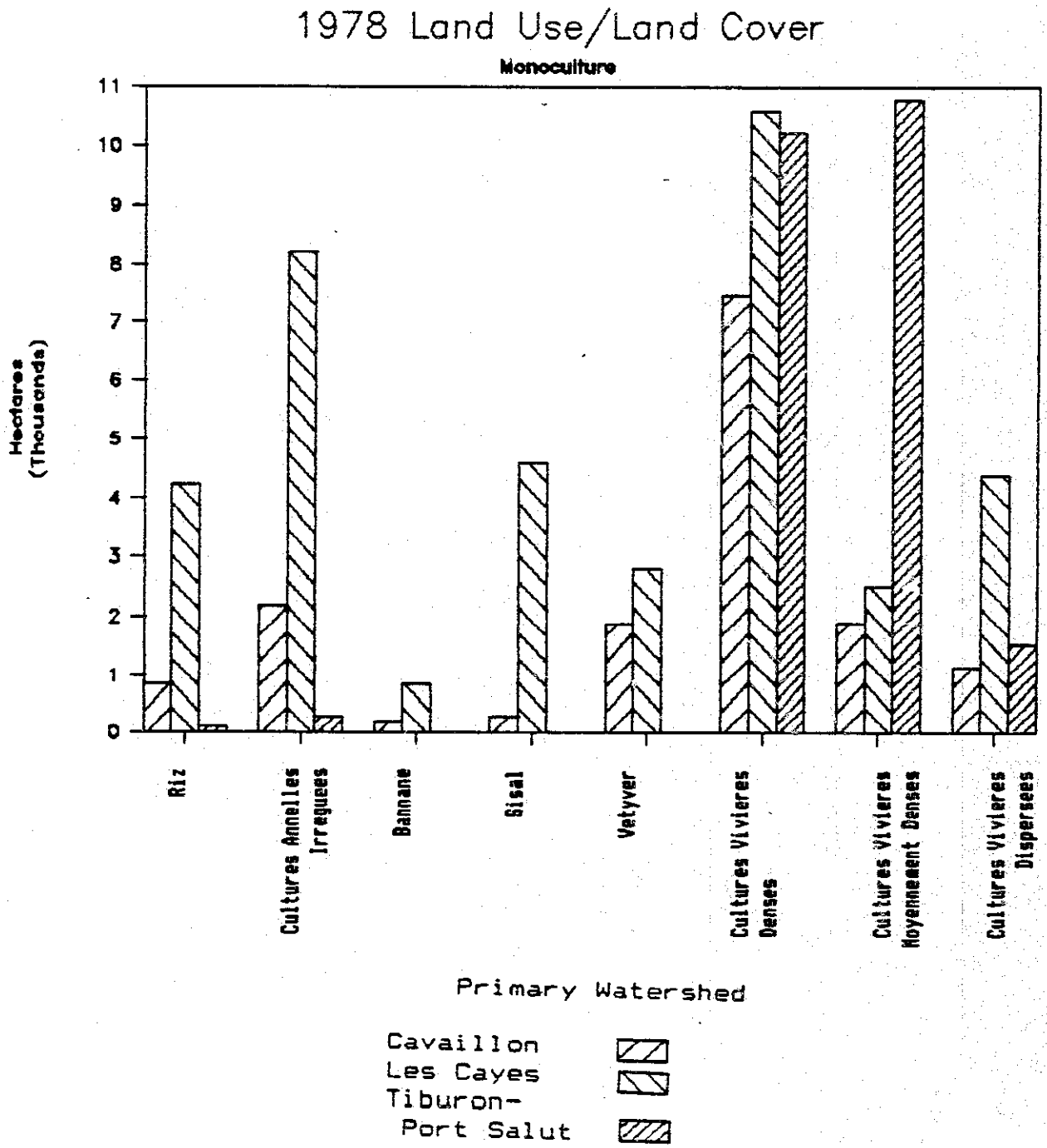

1978 Land Use/Land Cover
Monoculture
Hectares (Thousands)
0
1
2
3
4
5
6
7
8
9
10
11
Riz
Cultures Annelles Irreguees
Bannane
Sisal
Vetyver
Cultures Vivieres Denses
Cultures Vivieres Moyennement Denses
Cultures Vivieres Dispersees
Primary Watershed
Cavaillon
Les Cayes
Tiburon-
Port Salut

Figure 12.

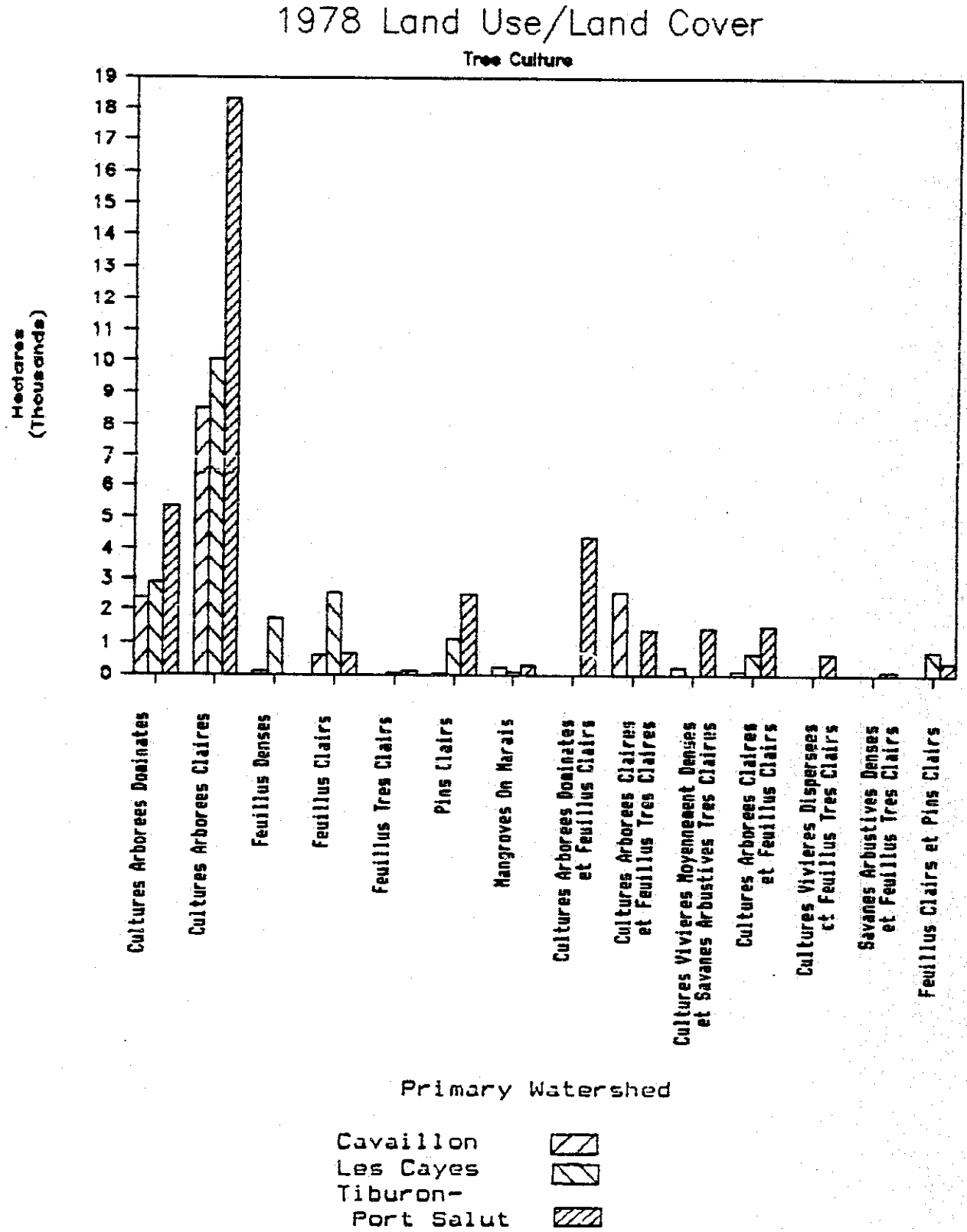

1978 Land Use/Land Cover
Tree Culture
Hectares (Thousands)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
Cultures Arborees Dominates
Cultures Arborees Claires
Feuillus Denses
Feuillus Clairs
Feuillus Tres Clairs
Pins Clairs
Mangroves On Marais
Cultures Arborees Dominates et Feuillus Clairs
Cultures Arborees Claires et Feuillus Tres Claires
Cultures Vivieres Moyennement Denses et Savanes Arbustives Tres Claires
Cultures Arborees Claires et Feuillus Clairs
Cultures Vivieres Dispersees et Feuillus Tres Clairs
Savanes Arbustives Denses et Feuillus Tres Clairs
Feuillus Clairs et Pins Clairs
Primary Watershed
Cavaillon
Les Cayes
Tiburon-Port Salut

Figure 13.

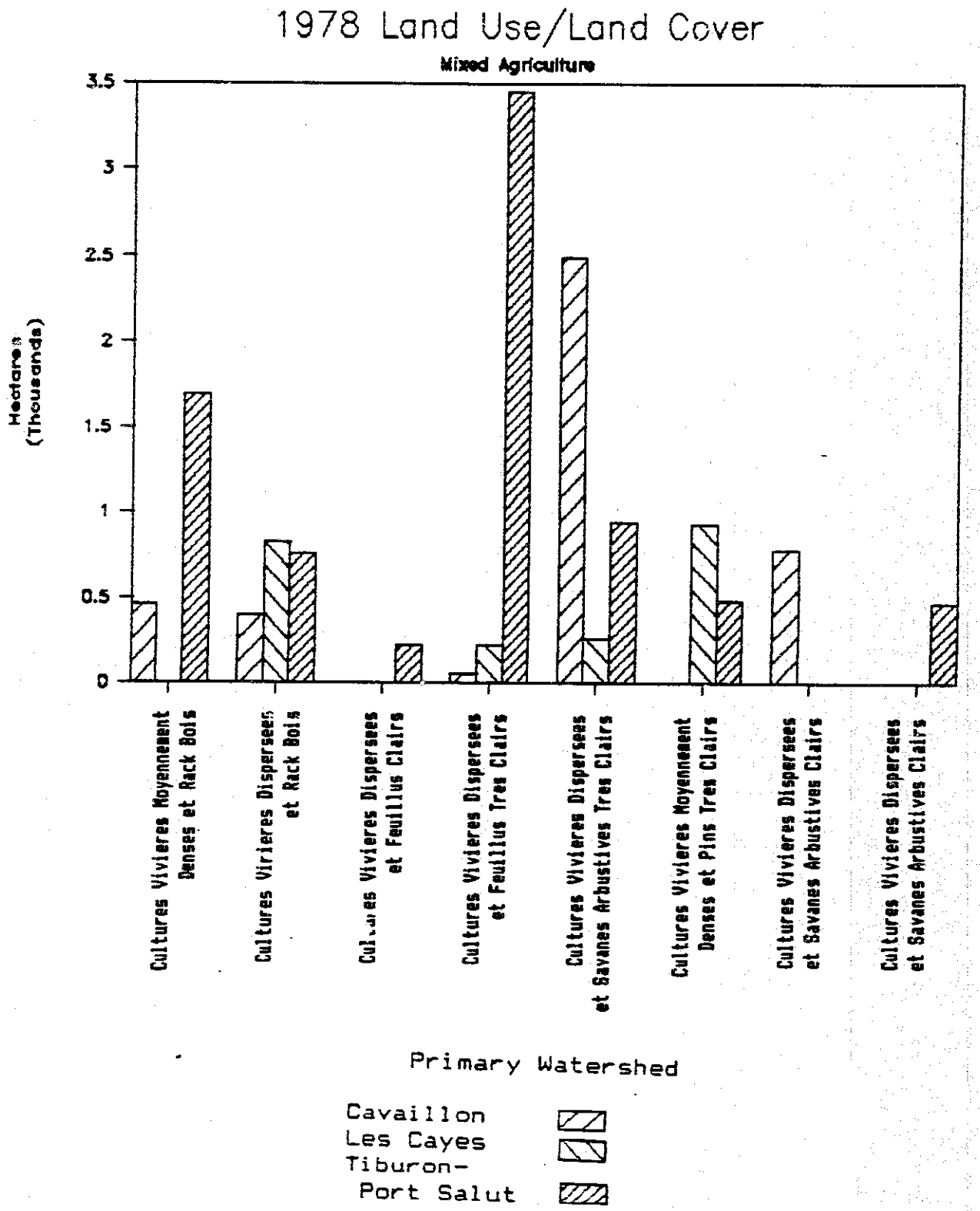

1978 Land Use/Land Cover
Mixed Agriculture
Hectares (Thousands)
3.5
3
2.5
2
1.5
1
0.5
0
Cultures Vivieres Moyennement Denses et Rack Bois
Cultures Virieres Dispersees et Rack Bois
Cultures Vivieres Dispersees et Feuillus Clairs
Cultures Vivieres Dispersees et Feuillus Tres Clairs
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs
Cultures Vivieres Moyennement Denses et Pins Tres Clairs
Cultures Vivieres Dispersees et Savanes Arbustives Clairs
Cultures Vivieres Dispersees et Savanes Arbustives Clairs
Primary Watershed
Cavaillon
Les Cayes
Tiburon-Port Salut

Figure 14.

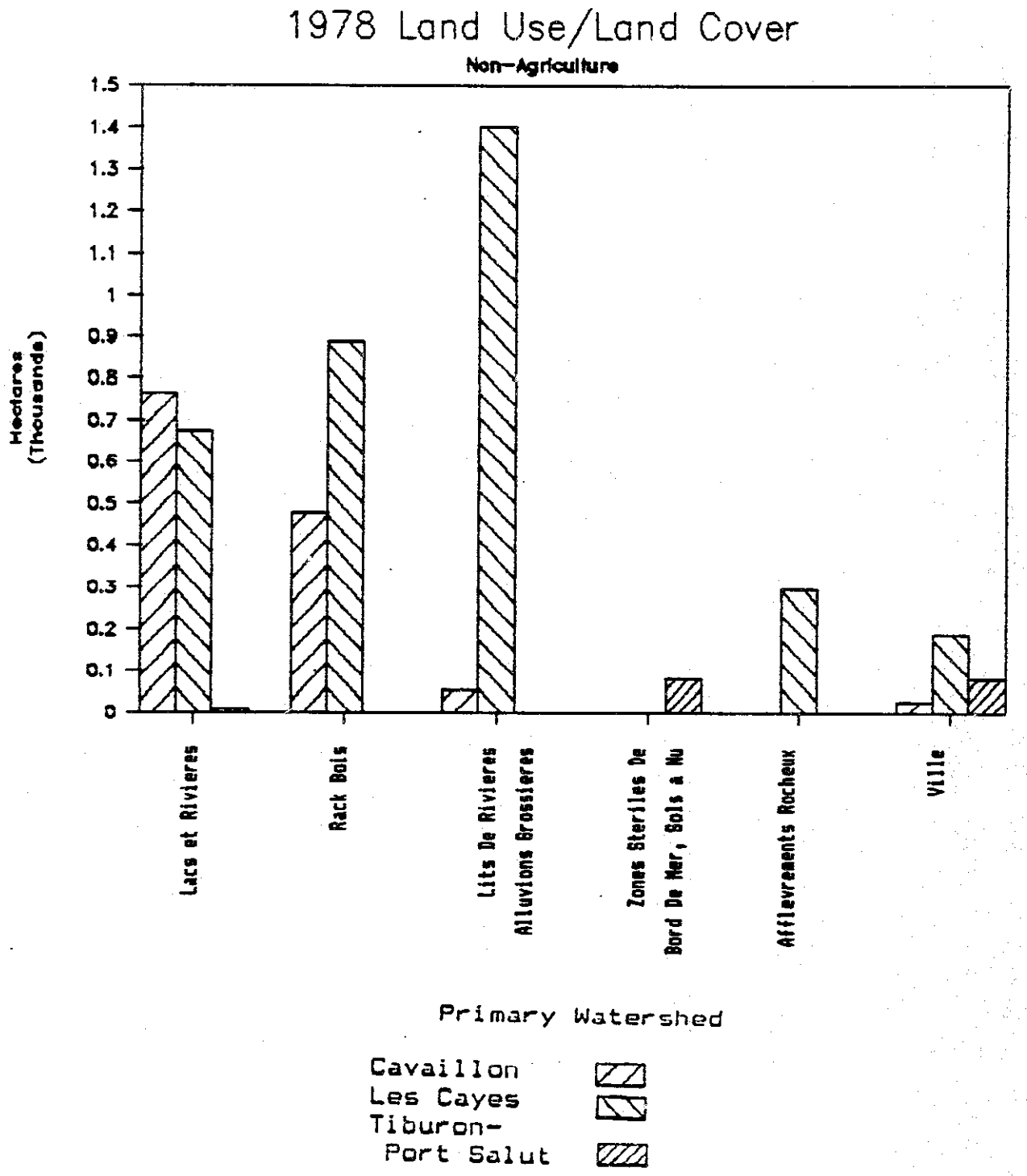

1978 Land Use/Land Cover
Non-Agriculture
Hectares (Thousands)
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Lacs et Rivieres
Rack Bois
Lits De Rivieres Alluvions Grossieres
Zones Steriles De Bord De Mer, Bois a Nu
Afflevreaents Rocheux
Ville
Primary Watershed
Cavaillon
Les Cayes
Tiburon-Port Salut

Table 8:
1978 Land Use/Land Cover by Fourth Order Watershed
Cavaillon Primary Watershed
Primary Watershed Code 20-00
(Area in hectares)

	01-00	02-01	02-02	03-00	04-00	05-00	06-00	Totals
Lacs et Rivieres	18	36	126	0	0	225	360	765
Riz	0	0	0	90	9	495	234	828
Cultures Annelles Irreguees	495	36	603	9	72	234	729	2178
Bannane	0	0	0	0	0	180	0	180
Sisal	0	0	0	0	0	0	279	279
Vetyver	0	0	0	81	0	1026	774	1881
Cultures Arborees Dominates	18	0	0	333	1098	261	693	2403
Cultures Arborees Claires	2052	720	864	531	2385	486	1485	8523
Cultures Vivieres Denses	1242	441	864	405	792	2052	1683	7479
Cultures Vivieres Moyennement Denses	99	81	27	63	99	945	585	1899
Cultures Vivieres Dispersees	18	81	0	0	108	0	918	1125
Rack Bois	0	0	0	0	0	477	0	477
Feuillus Denses	0	9	0	108	0	0	0	117
Feuillus Clairs	0	0	0	0	0	0	585	585
Pins Clairs	0	0	0	0	0	0	54	54
Lits De Rivieres, Alluvions Grossieres	0	0	0	0	0	18	36	54
Mangroves On Marais	0	0	0	0	0	81	153	234
Ville	0	0	0	0	0	27	0	27
Cultures Arborees Claires et Feuillus Tres Claires	0	1638	0	657	324	0	0	2619
Cultures Vivieres Moyennement Denses et Savanes Arbustives Tres Claires	0	72	171	0	0	0	0	243
Cultures Vivieres Moyennement Denses et Rack Bois	0	0	0	0	0	459	0	459

Table 8 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Cavaillon Primary Watershed
Primary Watershed Code 20-00
(Continued)
(Area in hectares)

	01-00	02-01	02-02	03-00	04-00	05-00	06-00	Totals
Cultures Vivieres Dispersees et Rack Bois	0	243	0	0	0	90	63	396
Cultures Vivieres Dispersees et Feuillus Tres Clairs	0	54	0	0	0	0	0	54
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs	45	126	0	1044	792	0	486	2493
Cultures Arborees Claires et Feuillus Clairs	0	0	0	144	0	0	0	144
Cultures Vivieres Dispersees et Savanes Arbustives Clairs	0	0	117	0	0	549	108	774
Totals	3987	3537	2772	3465	5679	7605	9225	36270

Table 9:
1978 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Area in hectares)

	01-00	02-01	02-02	02-03	03-01	03-02
Lacs et Rivieres	0	0	0	54	0	0
Riz	27	0	0	468	0	0
Cultures Annelles Irreguees	0	90	81	1269	18	18
Bannane	0	0	0	189	0	0
Bisal	0	0	0	657	0	0
Vetyver	396	549	0	0	153	0
Cultures Arborees Dominates	0	0	99	423	27	0
Cultures Arborees Claires	45	0	315	243	594	0
Cultures Vivieres Denses	54	1026	3213	927	0	0
Cultures Vivieres Moyennement Denses	0	0	0	0	162	378
Cultures Vivieres Dispersees	0	0	0	0	1350	855
Rack Bois	693	198	0	0	0	0
Feuillus Denses	0	0	0	0	522	315
Feuillus Clairs	0	0	0	0	9	1710
Feuillus Tres Clairs	0	0	0	0	0	0
Pins Clairs	0	0	0	0	0	936
Lits De Rivieres, Alluvions Grossieres	0	0	0	81	0	0
Afflevrements Rocheux	72	0	0	144	0	0
Mangroves On Marais	72	0	0	9	0	0
Ville	0	0	0	9	0	0
Cultures Vivieres Dispersees et Rack Bois	0	0	0	0	0	0
Cultures Vivieres Dispersees et Feuillus Tres Clairs	0	0	0	0	0	0
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs	0	0	0	0	0	0

Table 9 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Area in hectares)

	01-00	02-01	02-02	02-03	03-01	03-02
Cultures Arborees Claires et Feuillus Clairs	0	0	0	0	0	648
Cultures Vivieres Moyennement Denses et Pins Tres Clairs	0	0	0	0	0	27
Feuillus Clairs et Pins Clairs	0	0	0	0	27	693
Totals	1359	1863	3708	4473	2862	5580

Table 9 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Area in hectares)

	03-03	03-04	04-01	04-02	04-03	05-01
Lacs et Rivieres	0	0	54	0	0	126
Riz	828	360	540	27	405	54
Cultures Annelles Irreguees	45	1926	1836	1287	45	0
Bannane	576	9	0	0	0	0
Sisal	1215	0	1161	0	0	0
Vetyver	0	828	243	333	81	0
Cultures Arborees Dominates	18	45	18	0	0	1134
Cultures Arborees Claires	117	207	198	1170	918	2070
Cultures Vivieres Denses	576	990	315	0	81	261
Cultures Vivieres Moyennement Denses	0	0	0	513	603	0
Cultures Vivieres Dispersees	0	0	0	261	0	0
Rack Bois	0	0	0	0	0	0
Feuillus Denses	0	0	0	18	9	0
Feuillus Clairs	0	0	0	0	0	0
Feuillus Tres Clairs	0	0	0	0	0	0
Pins Clairs	0	0	0	0	0	0
Lits De Rivieres, Alluvions Grossieres	18	0	99	324	9	0
Afflevrements Rocheux	0	45	0	0	0	0
Mangroves On Marais	0	27	0	0	0	0
Ville	0	0	18	0	0	0
Cultures Vivieres Dispersees et Rack Bois	0	0	0	0	0	0
Cultures Vivieres Dispersees et Feuillus Tres Clairs	0	0	0	0	0	0
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs	0	0	0	0	0	0

Table 9 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Area in hectares)

	03-03	03-04	04-01	04-02	04-03	05-01
Cultures Arborees Claires et Feuillus Clairs	0	0	0	0	0	0
Cultures Vivieres Moyennement Denses et Pins Tres Clairs	0	0	0	54	9	0
Feuillus Clairs et Pins Clairs	0	0	0	0	0	0
Totals	3393	4437	4482	3987	2160	3645

Table 9 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Area in hectares)

	05-02	05-03	06-00	07-00	Totals
Lacs et Rivieres	0	0	36	405	675
Riz	306	432	504	279	4230
Cultures Annelles Irreguees	117	27	801	648	8208
Bannane	0	0	0	54	828
Sisal	0	0	1116	441	4590
Vetyver	0	225	0	0	2808
Cultures Arborees Dominates	198	630	27	288	2907
Cultures Arborees Claires	2376	864	585	369	10071
Cultures Vivieres Denses	1152	1917	9	90	10611
Cultures Vivieres Moyennement Denses	279	279	0	306	2520
Cultures Vivieres Dispersees	0	1926	0	0	4392
Rack Bois	0	0	0	0	891
Feuillus Denses	0	873	0	0	1737
Feuillus Clairs	9	765	0	72	2565
Feuillus Tres Clairs	0	0	0	63	63
Pins Clairs	0	0	0	180	1116
Lits De Rivieres, Alluvions Grossieres	0	0	0	873	1404
Afflevrements Rocheux	0	36	0	0	297
Mangroves On Marais	0	0	0	0	108
Ville	0	9	0	153	189
Cultures Vivieres Dispersees et Rack Bois	0	828	0	0	828
Cultures Vivieres Dispersees et Feuillus Tres Clairs	108	117	0	0	225
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs	0	0	0	261	261

Table 9 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Area in hectares)

	05-02	05-03	06-00	07-00	Totals
Cultures Arborees Claires et Feuillus Clairs	0	0	0	0	648
Cultures Vivieres Moyennement Denses et Pins Tres Clairs	0	837	0	0	927
Feuillus Clairs et Pins Clairs	0	27	0	0	747
Totals	4545	9792	3078	4482	63846

Table 10:
1978 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Area in hectares)

	01-00	02-00	03-01	03-02	04-01	04-02	05-01	05-02
Lacs et Rivieres	9	0	0	0	0	0	0	0
Riz	0	0	0	0	0	0	0	0
Cultures Annelles Irreguees	0	0	0	0	0	0	0	0
Cultures Arborees Dominates	792	81	18	108	270	225	0	0
Cultures Arborees Claires	1287	576	225	972	666	90	27	558
Cultures Vivieres Denses	504	117	558	1233	522	396	387	630
Cultures Vivieres Moyennement Denses	396	108	0	0	36	441	459	279
Cultures Vivieres Dispersees	0	0	0	0	0	0	0	99
Feuillus Clairs	0	0	0	0	0	0	0	0
Feuillus Tres Clairs	0	0	0	0	0	0	0	0
Pins Clairs	0	0	0	0	0	0	0	0
Zones Steriles De Bord De Mer, Bols a Nu	81	0	0	0	0	0	0	0
Mangroves On Marais	171	0	0	81	0	0	0	0
Ville	13	0	0	0	0	45	0	0
Cultures Arborees Dominates et Feuillus Clairs	0	0	0	0	0	0	0	0
Cultures Arborees Claires et Feuillus Tres Claires	0	0	0	0	0	0	0	0
Cultures Vivieres Moyennement Denses et Savanes Arbustives Tres Claires	0	0	0	0	0	0	0	0
Cultures Vivieres Moyennement Denses et Rack Bois	0	0	0	405	0	0	0	0
Cultures Vivieres Dispersees et Rack Bois	0	0	0	0	0	0	0	0
Cultures Vivieres Dispersees et Feuillus Clairs	0	0	0	0	0	0	0	0

Table 10 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Area in hectares)

	01-00	02-00	03-01	03-02	04-01	04-02	05-01	05-0
Cultures Vivieres Dispersees et Feuillus Tres Clairs	0	0	0	0	0	0	0	(
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs	0	0	0	0	0	0	0	(
Cultures Arborees Claires et Feuillus Clairs	0	0	0	0	0	0	0	(
Cultures Vivieres Moyennement Denses et Savanes Arbustives Clairs	0	0	0	0	0	0	0	(
Cultures Vivieres Moyennement Denses et Pins Tres Clairs	0	0	0	0	0	0	0	(
Savanes Arbustives Denses et Feuillus Tres Clairs	0	0	0	0	0	0	0	(
Feuillus Clairs et Pins Clairs	0	0	0	0	0	0	0	(
Cultures Vivieres Dispersees et Savanes Arbustives Clairs	0	0	0	0	0	0	9	45
Totals	3258	882	801	2799	1494	1197	882	1611

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Table 10 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Area in hectares)

	06-00	07-00	08-00	09-00	10-01	10-02	11-00	12-01
Lacs et Rivieres	0	0	0	0	0	0	0	0
Riz	0	0	0	0	0	0	9	0
Cultures Annelles Irreguees	0	0	0	0	0	0	0	0
Cultures Arborees Dominates	162	342	369	261	351	495	423	0
Cultures Arborees Claires	1521	1098	1368	1215	1170	954	1188	585
Cultures Vivieres Denses	666	765	711	1053	0	0	585	0
Cultures Vivieres Moyennement Denses	171	297	504	351	1422	549	450	684
Cultures Vivieres Dispersees	81	0	324	549	54	54	0	0
Feuillus Clairs	0	0	0	0	549	108	0	0
Feuillus Tres Clairs	0	0	0	0	0	0	0	0
Pins Clairs	0	0	0	0	0	0	0	855
Zones Steriles De Bord De Mer, Sols a Nu	0	0	0	0	0	0	0	0
Mangroves On Marais	0	0	0	0	0	0	0	0
Ville	0	0	9	0	0	0	0	0
Cultures Arborees Dominates et Feuillus Clairs	0	0	0	864	243	1791	216	0
Cultures Arborees Claires et Feuillus Tres Claires	0	0	0	0	639	99	0	288
Cultures Vivieres Moyennement Denses et Savanes Arbustives Tres Claires	0	0	0	0	0	0	0	873
Cultures Vivieres Moyennement Denses et Rack Bois	0	9	270	360	9	270	369	0
Cultures Vivieres Dispersees et Rack Bois	0	99	0	0	0	486	0	0
Cultures Vivieres Dispersees et Feuillus Clairs	0	0	0	0	0	0	0	225

Table 10 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Area in hectares)

	06-00	07-00	08-00	09-00	10-01	10-02	11-00	12-01
Cultures Vivieres Dispersees et Feuillus Tres Clairs	0	0	0	0	0	0	0	1008
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs	0	0	0	0	0	0	0	54
Cultures Arborees Claires et Feuillus Clairs	0	0	0	0	369	0	0	306
Cultures Vivieres Moyennement Denses et Savanes Arbustives Clairs	0	0	0	0	0	0	0	0
Cultures Vivieres Moyennement Denses et Pins Tres Clairs	0	0	0	0	0	477	0	0
Savanes Arbustives Denses et Feuillus Tres Clairs	0	0	0	18	18	126	0	0
Feuillus Clairs et Pins Clairs	0	0	0	0	0	279	0	0
Cultures Vivieres Dispersees et Savanes Arbustives Clairs	0	0	0	81	0	0	0	0
Totals	2601	2610	3555	4752	4824	5688	3240	4878

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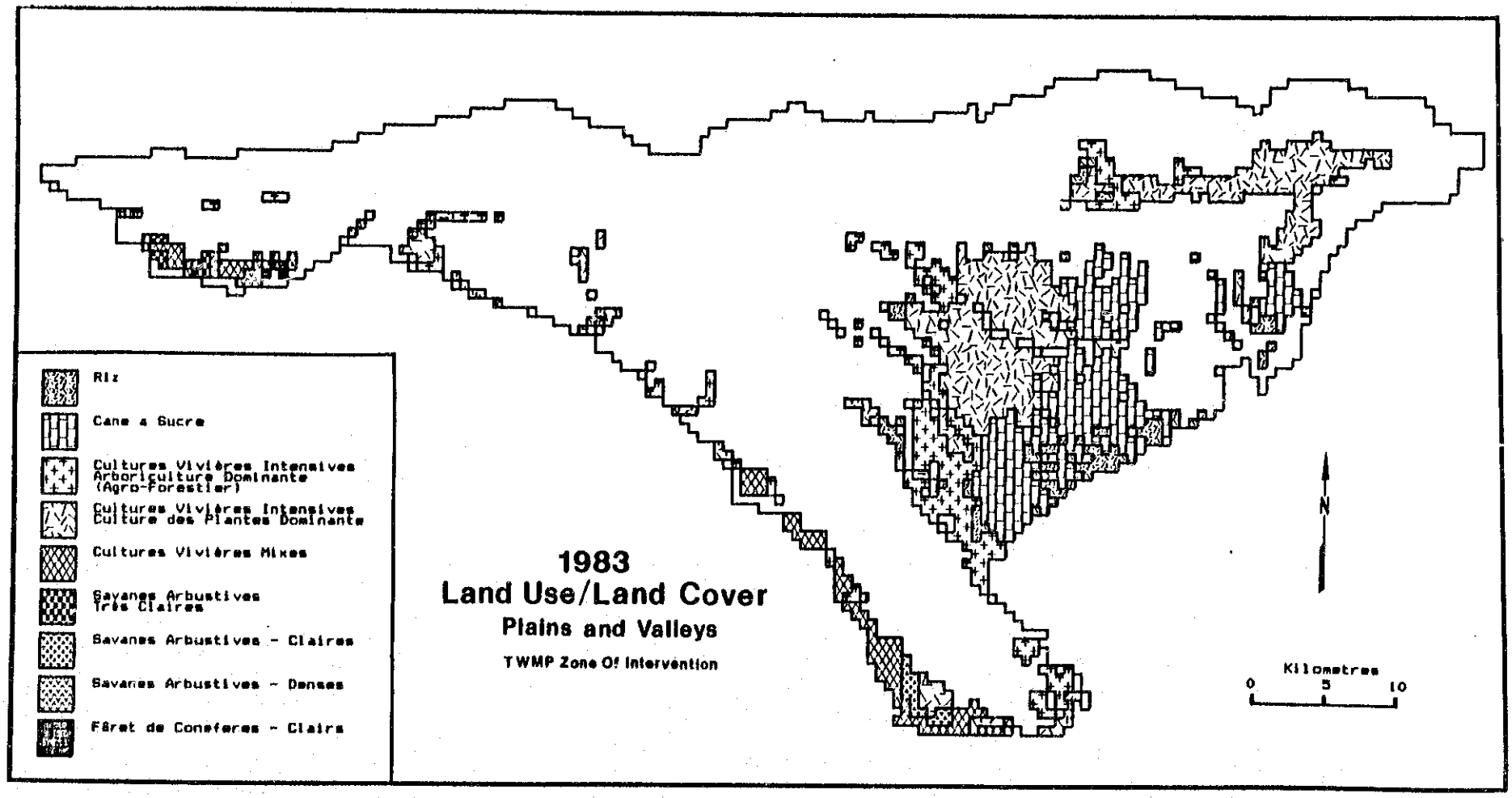
Table 10 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Area in hectares)

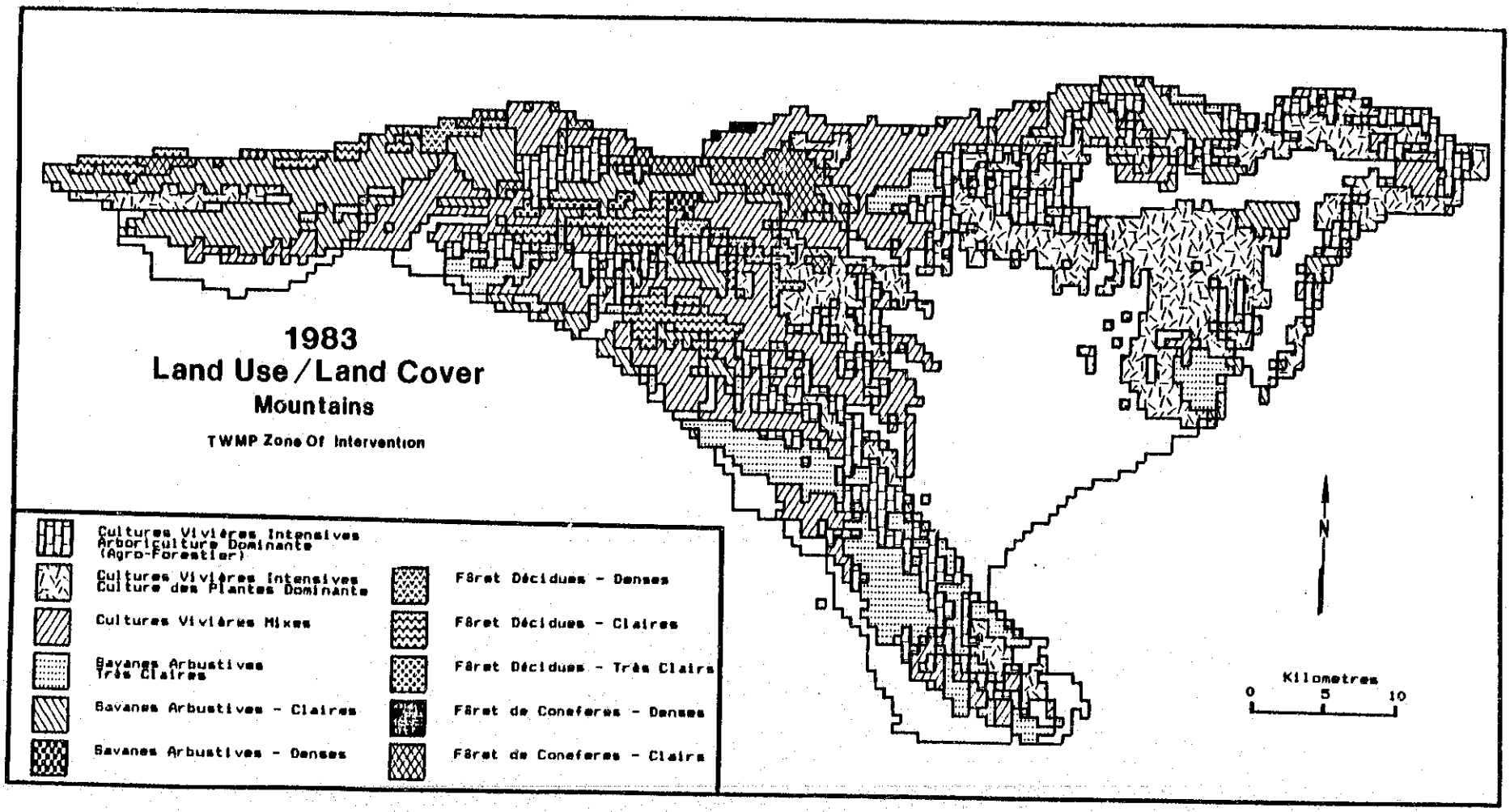
	12-02	12-03	12-04	12-05	13-00	14-00	Totals
Lacs et Rivieres	0	0	0	0	0	0	9
Riz	0	0	0	0	90	0	99
Cultures Annelles Irreguees	0	0	288	0	0	0	288
Cultures Arborees Dominates	0	189	963	0	126	189	5364
Cultures Arborees Claires	513	198	9	1161	1773	1161	18315
Cultures Vivieres Denses	9	0	216	576	1305	0	10233
Cultures Vivieres Moyennement Denses	0	450	909	0	1791	1494	10791
Cultures Vivieres Dispersees	0	0	0	0	36	324	1521
Feuillus Clairs	0	0	0	0	0	0	657
Feuillus Tres Clairs	0	0	0	0	99	36	135
Pins Clairs	369	0	0	99	0	1206	2529
Zones Steriles De Bord De Mer, Sols a Nu	0	0	0	0	0	0	81
Mangroves On Marais	0	0	0	0	81	0	333
Ville	0	0	9	0	0	0	81
Cultures Arborees Dominates et Feuillus Clairs	0	531	0	747	0	0	4392
Cultures Arborees Claires et Feuillus Tres Claires	0	0	0	0	0	387	1413
Cultures Vivieres Moyennement Denses et Savanes Arbustives Tres Claires	54	0	0	0	162	369	1458
Cultures Vivieres Moyennement Denses et Rack Bois	0	0	0	0	0	0	1692
Cultures Vivieres Dispersees et Rack Bois	0	0	0	0	171	0	756

Table 10 (Continued):
1978 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Area in hectares)

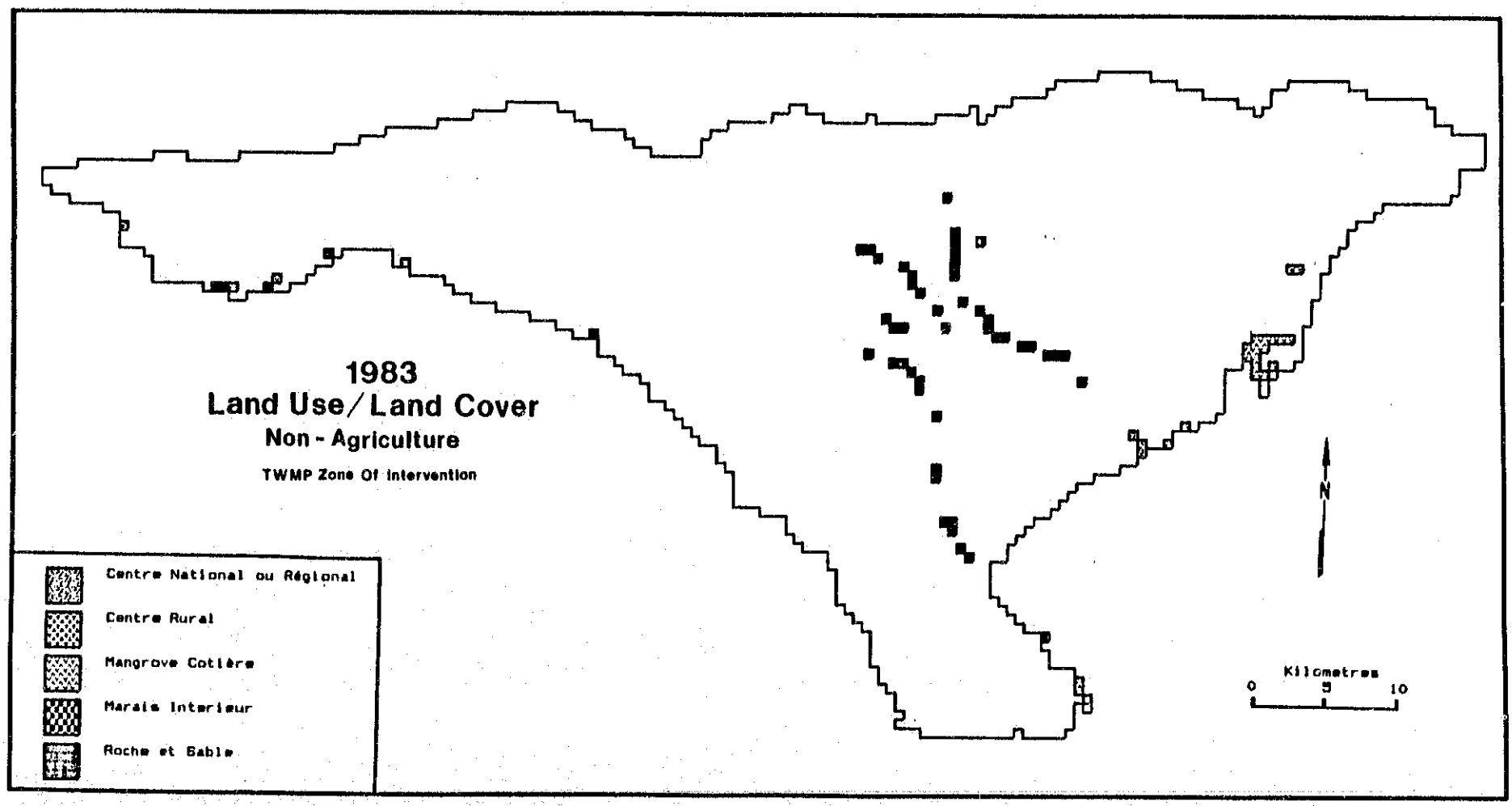
	12-02	12-03	12-04	12-05	13-00	14-00	Totals
Cultures Vivieres Dispersees et Feuillus Clairs	0	0	0	0	0	0	225
Cultures Vivieres Dispersees et Feuillus Tres Clairs	864	0	0	153	270	1152	3447
Cultures Vivieres Dispersees et Savanes Arbustives Tres Clairs	0	0	0	0	0	882	936
Cultures Arborees Claires et Feuillus Clairs	0	144	18	0	189	513	1539
Cultures Vivieres Moyennement Denses et Savanes Arbustives Clairs	0	0	0	0	657	0	657
Cultures Vivieres Moyennement Denses et Pins Tres Clairs	0	0	0	0	0	0	477
Savanes Arbustives Denses et Feuillus Tres Clairs	0	0	0	0	0	0	162
Feuillus Clairs et Pins Clairs	0	0	0	144	0	0	423
Cultures Vivieres Dispersees et Savanes Arbustives Clairs	0	0	0	0	288	45	468
Totals	1809	1512	2412	2880	7038	7758	68481


Riz
Cane a Sucre
Cultures Vivières Intensives Arboriculture Dominante (Agro-Forestier)
Cultures Vivières Intensives Culture des Plantes Dominante
Cultures Vivières Mixes
Savanes Arbustives Très Claires
Savanes Arbustives - Claires
Savanes Arbustives - Denses
Fâret de Coneferes - Clairs
1983
Land Use/Land Cover
Plains and Valleys
TWMP Zone Of Intervention
N
Kilometres
0
5
10

Map 13.


1983
Land Use / Land Cover
Mountains
TWMP Zone Of Intervention
Cultures Vivières Intensives Arboriculture Dominante (Agro-Forestier)
Cultures Vivières Intensives Culture des Plantes Dominante
Cultures Vivières Mixes
Savanes Arbustives Très Claires
Savanes Arbustives - Claires
Savanes Arbustives - Denses
Fôret Décidues - Denses
Fôret Décidues - Claires
Fôret Décidues - Très Claire
Fôret de Coneferes - Denses
Fôret de Coneferes - Claire
N
Kilometres
0
5
10

Map 14.


1983
Land Use/Land Cover
Non - Agriculture
TWMP Zone Of Intervention
Centre National ou Régional
Centre Rural
Mangrove Cotière
Marais Interieur
Roche et Sable
N
Kilometres
0
5
10

Map 15.

Figure 15.

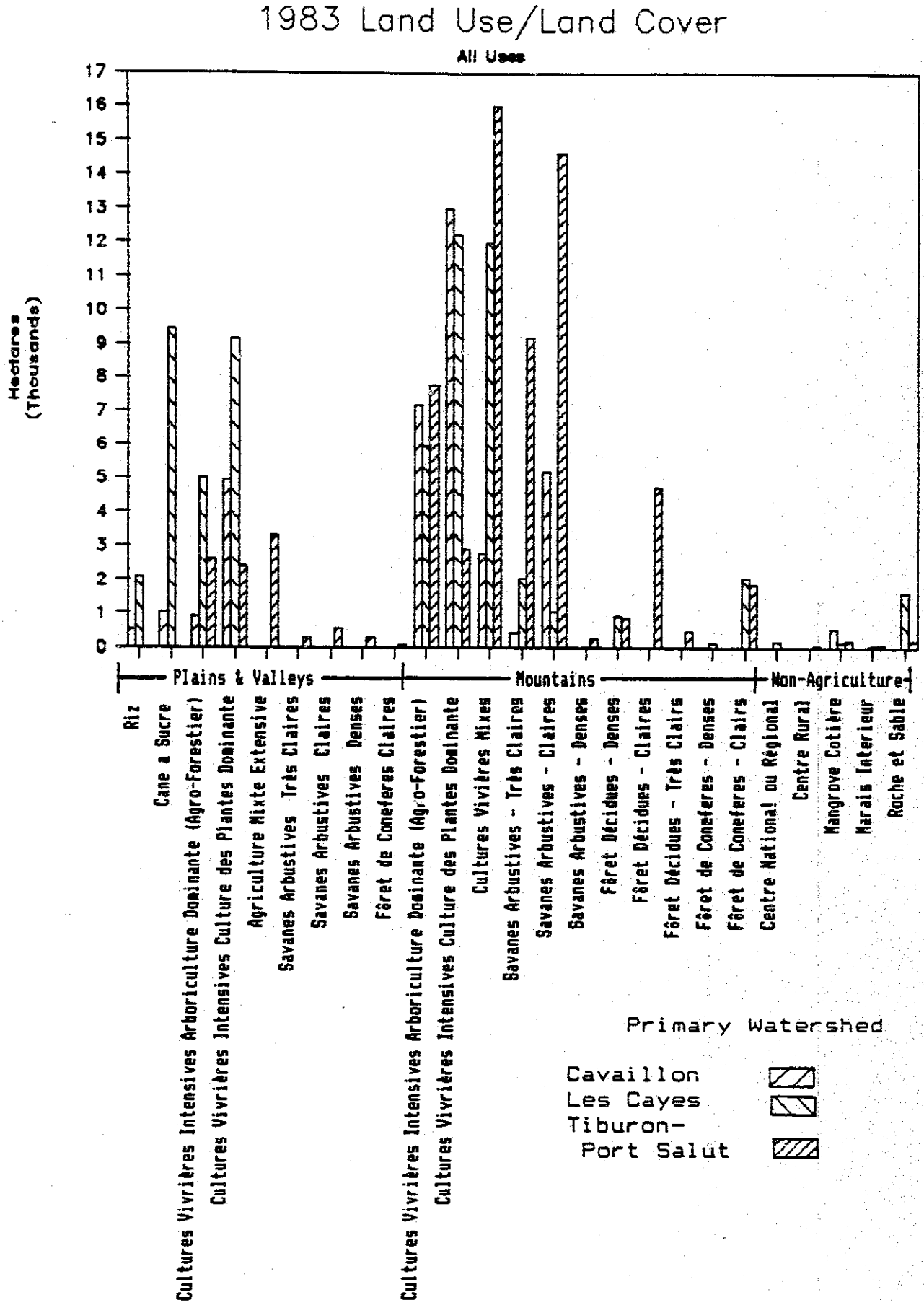

1983 Land Use/Land Cover
All Uses
Hectares (Thousands)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Plains & Valleys
Mountains
Non-Agriculture
Riz
Cane a Sucre
Cultures Vivrières Intensives Arboriculture Dominante (Agro-Forestier)
Cultures Vivrières Intensives Culture des Plantes Dominante
Agriculture Mixte Extensive
Savanes Arbustives Très Claires
Savanes Arbustives Claires
Savanes Arbustives Denses
Fôret de Coneferes Claires
Cultures Vivrières Intensives Arboriculture Dominante (Agro-Forestier)
Cultures Vivrières Intensives Culture des Plantes Dominante
Cultures Vivrières Mixes
Savanes Arbustives - Très Claires
Savanes Arbustives - Claires
Savanes Arbustives - Denses
Fôret Décidues - Denses
Fôret Décidues - Claires
Fôret Décidues - Très Clairs
Fôret de Coneferes - Denses
Fôret de Coneferes - Clairs
Centre National ou Régional
Centre Rural
Mangrove Cotière
Marais Interieur
Roche et Sable
Primary Watershed
Cavaillon
Les Cayes
Tiburon-
Port Salut

Figure 16.

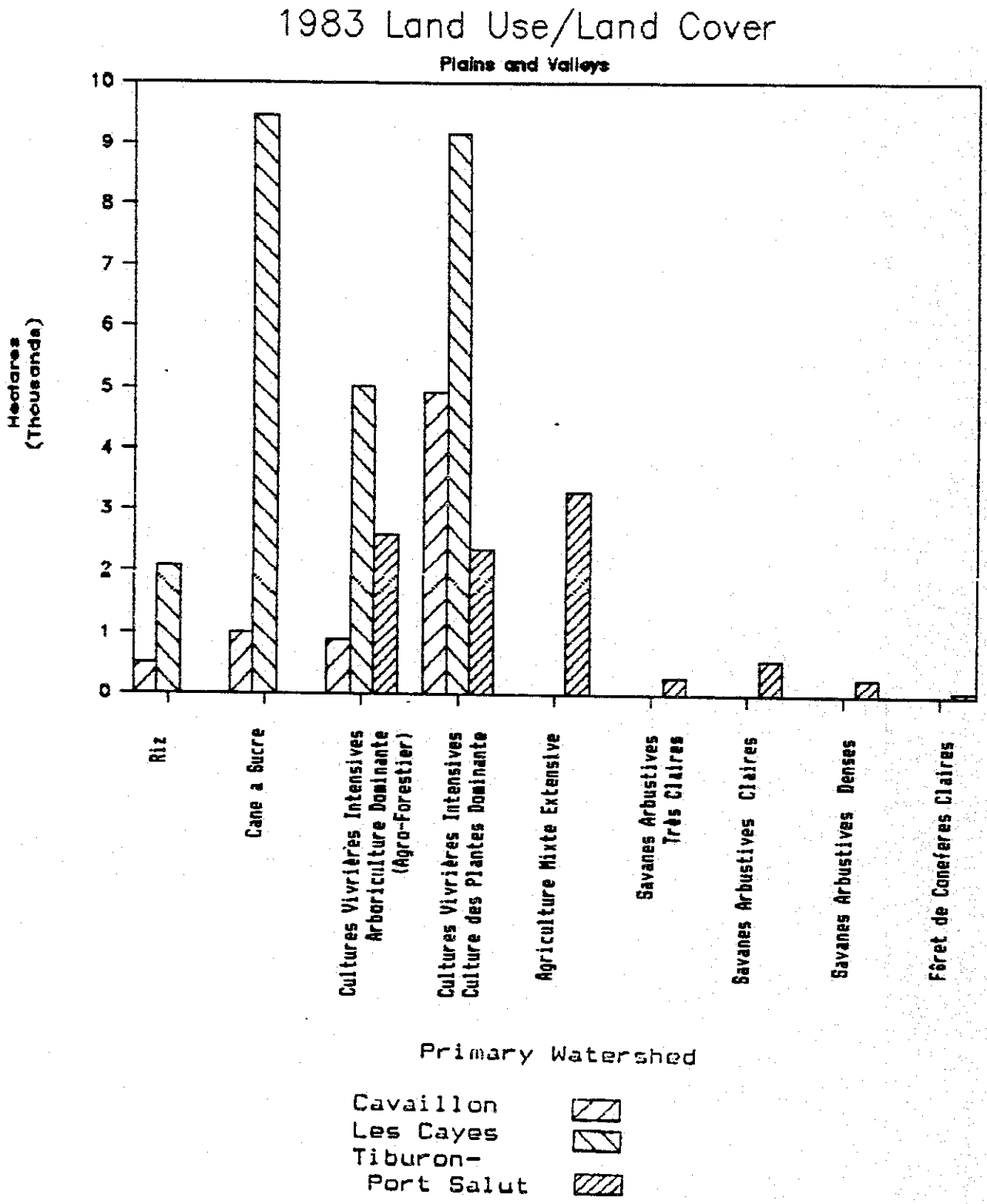

1983 Land Use/Land Cover
Plains and Valleys
Hectares (Thousands)
0
1
2
3
4
5
6
7
8
9
10
Riz
Cane a Sucre
Cultures Vivrières Intensives Arboriculture Dominante (Agro-Forestier)
Cultures Vivrières Intensives Culture des Plantes Dominante
Agriculture Mixte Extensive
Savanes Arbustives Très Claires
Savanes Arbustives Claires
Savanes Arbustives Denses
Fôret de Coneferes Claires
Primary Watershed
Cavaillon
Les Cayes
Tiburon-Port Salut

Figure 17.

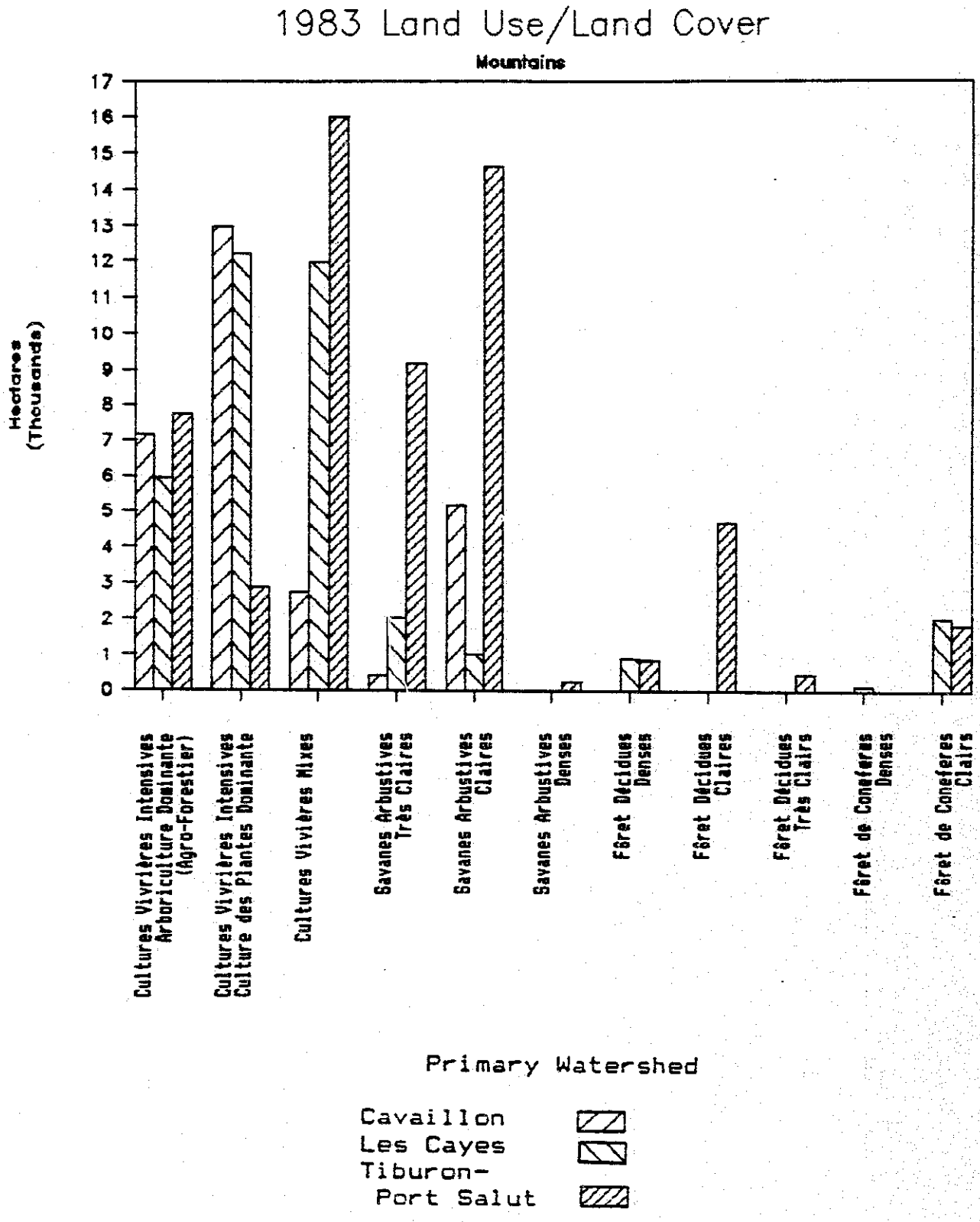

1983 Land Use/Land Cover
Mountains
Hectares (Thousands)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
Cultures Vivrières Intensives Arboriculture Dominante (Agro-Forestier)
Cultures Vivrières Intensives Culture des Plantes Dominante
Cultures Vivières Mixes
Savanes Arbustives Très Claires
Savanes Arbustives Claires
Savanes Arbustives Denses
Fôret Décidues Denses
Fôret Décidues Claires
Fôret Décidues Très Clairs
Fôret de Coneferes Denses
Fôret de Coneferes Clairs
Primary Watershed
Cavaillon
Les Cayes
Tiburon-Port Salut

Figure 18.

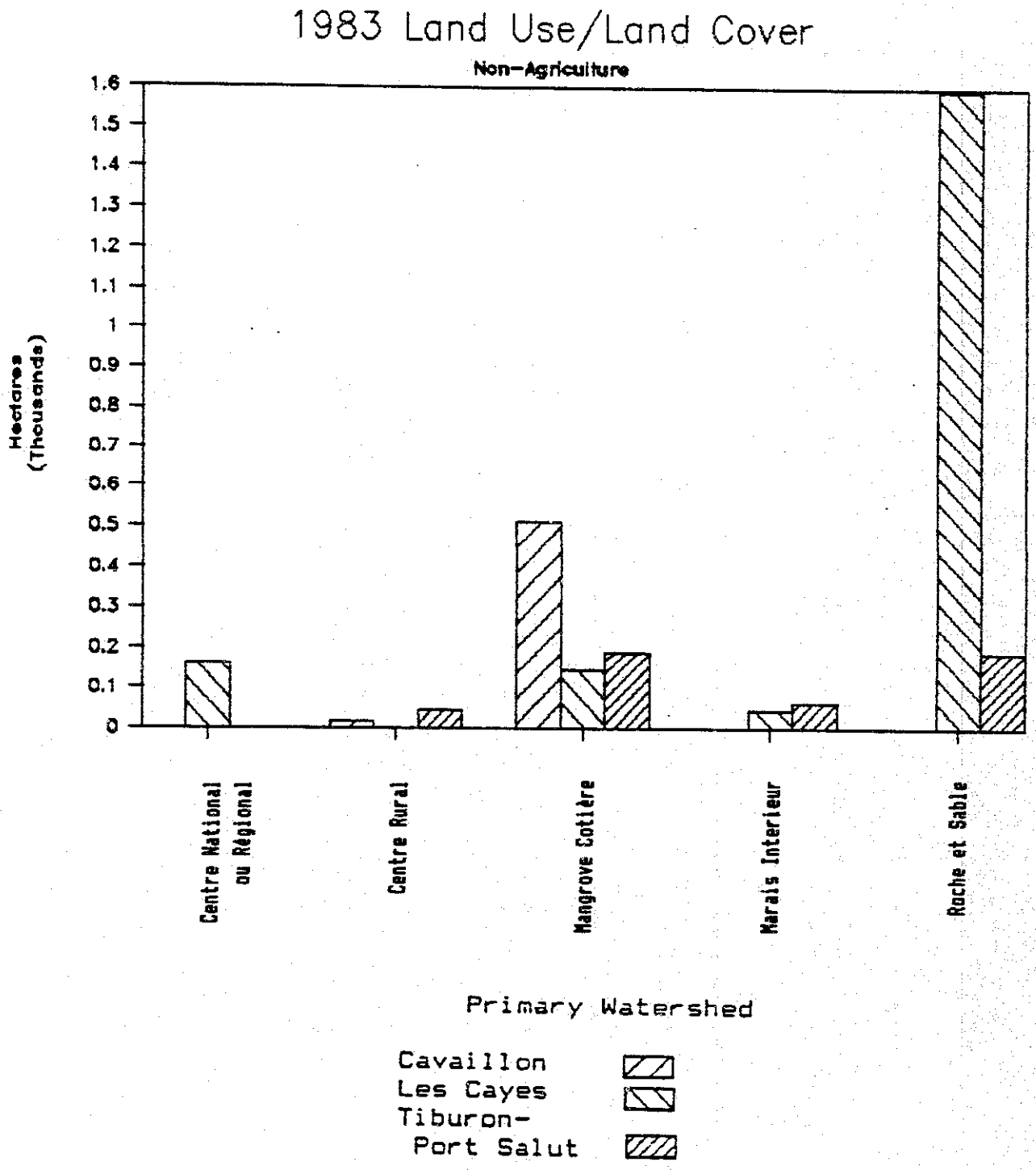

1983 Land Use/Land Cover
Non-Agriculture
Hectares (Thousands)
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Centre National ou Régional
Centre Rural
Mangrove Cotière
Marais Interieur
Roche et Sable
Primary Watershed
Cavaillon
Les Cayes
Tiburon-Port Salut

Table 11:
1983 Land Use/Land Cover by Fourth Order Watershed
Cavaillon Primary Watershed
Primary Watershed Code 20-00
(Areas in hectares)

	01-00	02-01	02-02	03-00	04-00	05-00	06-00	Totals
ZONE DE PLAINES ET VALLEES								
Cultures Spécalisées								
Riz	0	0	0	108	18	189	198	513
Cane a Sucre	0	0	0	0	0	369	639	1008
Cultures Vivières Intensives								
Arboriculture Dominante (Agro-For.)	0	63	0	297	36	306	189	891
Culture des Plantes Dominante	792	207	963	180	234	1062	1476	4914
ZONES MONTAGNEUSES								
Cultures Vivières Intensives								
Arboriculture Dominante (Agro-For.)	1251	648	459	576	2484	36	1692	7146
Culture des Plantes Dominante	1845	486	882	549	1476	4221	3510	12969
Agriculture Vivières Mixte Extensive								
Cultures Vivières Mixes	99	189	9	252	1197	324	639	2709
Savanes Arbustives - Très Claires	0	153	0	0	0	279	0	432
Savanes Arbustives - Claires	0	1791	459	1503	234	648	522	5157

Table 11 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Cavaillon Primary Watershed
Primary Watershed Code 20-00
(Continued)
(Areas in hectares)

	01-00	02-01	02-02	03-00	04-00	05-00	06-00	Totals
ZONES URBANISEES								
Centre Rural	0	0	0	0	0	0	18	18
ZONES NON-AGRICOLE								
Marais								
Mangrove Cotière	0	0	0	0	0	171	342	513
Totals	3987	3537	2772	3465	5679	7605	9225	36270

Table 12:
1983 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Areas in hectares)

	01-00	02-01	02-02	02-03	03-01	03-02
ZONE DE PLAINES ET VALLEES						
Cultures Spécalisées						
Riz	99	0	9	171	0	0
Cane a Sucre	36	135	459	1233	0	0
Cultures Vivières Intensives						
Arboriculture Dominante (Agro-For.)	0	0	0	0	0	0
Culture des Plantes Dominante	0	0	9	2376	0	0
ZONES MONTAGNEUSES						
Cultures Vivières Intensives						
Arboriculture Dominante (Agro-For.)	0	0	144	0	639	72
Culture des Plantes Dominante	531	1386	3078	522	144	432
Agriculture Vivières Mixte Extensive						
Cultures Vivières Mixes	0	225	0	0	864	3969
Savanes Arbustives - Très Claires	540	117	0	0	567	144
Savanes Arbustives - Claires	63	0	0	0	324	0
Savanes Arbustives - Denses	0	0	0	0	0	0

Table 12 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Areas in hectares)

	01-00	02-01	02-02	02-03	03-01	03-02
ZONES MONTAGNEUSES (Cont'd)						
Fôret Décidues						
Denses	0	0	0	0	0	0
Fôret de Coneferes						
Denses	0	0	0	0	0	135
Clairs	0	0	0	0	324	828
ZONES URBANISEES						
Centre National ou Rgional	0	0	0	36	0	0
ZONES NON-AGRICOLE						
Marais						
Mangrove Cotière	90	0	0	9	0	0
Marais Interieur	0	0	9	36	0	0
Zones Stériles						
Roche et Sable	0	0	0	90	0	0
Totals	1359	1863	3708	4473	2862	5580

Table 12 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Areas in hectares)

	03-03	03-04	04-01	04-02	04-03	05-01
ZONE DE PLAINES ET VALLEES						
Cultures Spécalisées						
Riz	693	135	252	0	144	18
Cane a Sucre	1836	1980	1665	0	0	0
Cultures Vivières Intensives						
Arboriculture Dominante (Agro-For.)	0	0	423	747	0	684
Culture des Plantes Dominante	864	459	1809	1575	216	0
ZONES MONTAGNEUSES						
Cultures Vivières Intensives						
Arboriculture Dominante (Agro-For.)	0	0	18	108	630	1863
Culture des Plantes Dominante	0	1818	117	324	684	252
Agriculture Vivières Mixte Extensive						
Cultures Vivières Mixes	0	0	126	828	396	0
Savanes Arbustives - Très Claires	0	0	0	0	0	639
Savanes Arbustives - Claires	0	0	0	81	0	0
Savanes Arbustives - Denses	0	0	0	0	0	0

Table 12 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Areas in hectares)

	03-03	03-04	04-01	04-02	04-03	05-01
ZONES MONTAGNEUSES (Cont'd)						
Fôret Décidues						
Denses	0	0	0	0	0	0
Fôret de Coneferes						
Denses	0	0	0	0	0	0
Clairs	0	0	0	9	0	0
ZONES URBANISEES						
Centre National ou Rgional	0	0	0	0	0	0
ZONES NON-AGRICOLE						
Marais						
Mangrove Cotière	0	45	0	0	0	0
Marais Interieur	0	0	0	0	0	0
Zones Stériles						
Roche et Sable	0	0	72	315	90	189
Totals	3393	4437	4482	3987	2160	3645

Table 12 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Areas in hectares)

	05-02	05-03	06-00	07-00	Totals
ZONE DE PLAINES ET VALLEES					
Cultures Spécalisées					
Riz	144	72	270	72	2079
Cane a Sucre	0	0	1134	972	9450
Cultures Vivières Intensives					
Arboriculture Dominante (Agro-For.)	288	1467	1413	0	5022
Culture des Plantes Dominante	315	216	261	1053	9153
ZONES MONTAGNEUSES					
Cultures Vivières Intensives					
Arboriculture Dominante (Agro-For.)	1107	675	0	675	5931
Culture des Plantes Dominante	594	2043	0	288	12213
Agriculture Vivières Mixte Extensiv					
Cultures Vivières Mixes	2034	2835	0	693	11970
Savanes Arbustives - Très Claires	0	0	0	18	2025
Savanes Arbustives - Claires	0	531	0	0	999
Savanes Arbustives - Denses	0	9	0	0	9

Table 12 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Les Cayes Primary Watershed
Primary Watershed Code 21-00
(Continued)
(Areas in hectares)

	05-02	05-03	06-00	07-00	Totals
ZONES MONTAGNEUSES (Cont'd)					
Fôret Décidues					
Denses	63	837	0	0	900
Fôret de Coneferes					
Denses	0	0	0	0	135
Clairs	0	855	0	0	2016
ZONES URBANISEES					
Centre National ou Rgional	0	0	0	126	162
ZONES NON-AGRICOLE					
Marais					
Mangrove Cotière	0	0	0	0	144
Marais Interieur	0	0	0	0	45
Zones Stériles					
Roche et Sable	0	252	0	585	1593
Totals	4545	9792	3078	4482	63846

Table 13:
1983 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Balut Primary Watershed
Primary Watershed Code 22-00
(Areas in hectares)

	01-00	02-00	03-01	03-02	04-01	04-02	05-01	05-02
ZONE DE PLAINES ET VALLEES								
Cultures Spécalisées								
Riz	0	0	0	0	0	0	0	0
Cultures Vivières Intensives								
Arboriculture Dominante (Agro-For.)	909	0	0	0	0	0	9	117
Culture des Plantes Dominante	315	27	126	423	0	0	0	0
Agriculture Mixte Extensive								
Cultures Vivières Mixes	0	9	252	648	234	234	270	243
Savanes Arbustives - Très Claires	0	0	0	0	0	0	0	0
Savanes Arbustives - Claires	0	0	0	477	81	0	0	0
Savanes Arbustives - Denses	0	0	0	0	0	0	0	0
Fôret de Coneferes								
Clairs	0	0	0	0	0	0	0	0
ZONES MONTAGNEUSES								
Cultures Vivières Intensives								
Arboriculture Dominante (Agro-For.)	243	225	90	270	549	243	0	171
Culture des Plantes Dominante	945	117	0	0	0	0	0	0

Table 13 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Areas in hectares)

	01-00	02-00	03-01	03-02	04-01	04-02	05-01	05-02
ZONES MONTAGNEUSES (Cont'd)								
Agriculture Vivières Mixte Extensive								
Cultures Vivières Mixes	0	225	189	288	306	0	0	180
Savanes Arbustives - Très Claires	675	279	144	693	324	720	603	900
Savanes Arbustives - Claires	0	0	0	0	0	0	0	0
Savanes Arbustives - Denses	0	0	0	0	0	0	0	0
Fôret Décidues								
Denses	0	0	0	0	0	0	0	0
Claires	0	0	0	0	0	0	0	0
Très Clairs	0	0	0	0	0	0	0	0
Fôret de Coneferes								
Clairs	0	0	0	0	0	0	0	0
ZONES URBANISEES								
Centre Rural	0	0	0	0	0	0	0	0

Table 13 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Areas in hectares)

	01-00	02-00	03-01	03-02	04-01	04-02	05-01	05-02
ZONES NON-AGRICOLE								
Marais								
Mangrove Cotière	108	0	0	0	0	0	0	0
Marais Interieur	63	0	0	0	0	0	0	0
Zones Stériles								
Roche et Sable	0	0	0	0	0	0	0	0
Totals	3258	882	801	2799	1494	1197	882	1611

Table 13 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Areas in hectares)

	06-00	07-00	08-00	09-00	10-01	10-02	11-00	12-01
ZONE DE PLAINES ET VALLEES								
Cultures Spécalisées								
Riz	0	0	9	0	0	0	0	0
Cultures Vivières Intensives								
Arboriculture Dominante (Agro-For.)	54	117	63	306	18	72	27	0
Culture des Plantes Dominante	0	0	81	207	81	369	99	0
Agriculture Mixte Extensive								
Cultures Vivières Mixes	36	351	279	0	0	0	0	0
Savanes Arbustives - Très Claires	0	0	0	0	0	0	0	0
Savanes Arbustives - Claires	0	0	0	0	0	0	0	0
Savanes Arbustives - Denses	0	0	0	0	0	0	0	0
Fôret de Coneferes								
Clairs	0	0	0	0	0	0	0	0

Table 13 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Areas in hectares)

	06-00	07-00	08-00	09-00	10-01	10-02	11-00	12-01
ZONES MONTAGNEUSES								
Cultures Vivières Intensives								
Arboriculture Dominante (Agro-For.)	882	387	891	153	522	630	261	18
Culture des Plantes Dominante	81	225	126	0	81	0	0	0
Agriculture Vivières Mixte Extensive								
Cultures Vivières Mixes	702	720	1287	1944	1953	1035	1197	702
Savanes Arbustives - Très Claires	846	810	810	540	135	216	900	0
Savanes Arbustives - Claires	0	0	0	792	666	1503	756	2709
Savanes Arbustives - Denses	0	0	0	0	0	234	0	0
Fôret Décidues								
Denses	0	0	0	0	234	54	0	576
Claires	0	0	9	801	1134	1197	0	522
Très Clairs	0	0	0	0	0	126	0	0
Fôret de Coneferes								
Clairs	0	0	0	0	0	216	0	351

Table 13 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Areas in hectares)

	06-00	07-00	08-00	09-00	10-01	10-02	11-00	12-01
ZONES URBANISEES								
Centre Rural	0	0	0	9	0	0	0	0
ZONES NON-AGRICOLE								
Marais								
Mangrove Cotière	0	0	0	0	0	0	0	0
Marais Interieur	0	0	0	0	0	0	0	0
Zones Stériles								
Roche et Sable	0	0	0	0	0	36	0	0
Totals	2601	2610	3555	4752	4824	5688	3240	4878

Table 13 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Areas in hectares)

	12-02	12-03	12-04	12-05	13-00	14-00	Totals
ZONE DE PLAINES ET VALLEES							
Cultures Spécalisées							
Riz	0	0	0	0	0	0	9
Cultures Vivières Intensives							
Arboriculture Dominante (Agro-For.)	0	45	360	0	54	450	2601
Culture des Plantes Dominante	0	0	432	0	144	45	2349
Agriculture Mixte Extensive							
Cultures Vivières Mixes	0	0	0	0	720	0	3276
Savanes Arbustives - Très Claires	0	0	0	0	288	0	288
Savanes Arbustives - Claires	0	0	0	0	0	0	558
Savanes Arbustives - Denses	0	0	0	0	279	0	279
Fôret de Coneferes							
Clairs	0	0	0	0	72	0	72

Table 13 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Areas in hectares)

	12-02	12-03	12-04	12-05	13-00	14-00	Totals
ZONES MONTAGNEUSES							
Cultures Vivières Intensives							
Arboriculture Dominante (Agro-For.)	504	180	513	1017	0	0	7749
Culture des Plantes Dominante	0	0	0	0	0	1323	2898
Agriculture Vivières Mixte Extensive							
Cultures Vivières Mixes	927	603	846	486	2412	0	16002
Savanes Arbustives - Très Claires	0	9	135	0	432	0	9171
Savanes Arbustives - Claires	27	108	126	792	2367	4761	14607
Savanes Arbustives - Denses	0	0	0	0	0	0	234
Fôret Décidues							
Denses	0	0	0	0	0	0	864
Claires	0	324	0	0	0	738	4725
Très Clairs	0	207	0	144	0	0	477
Fôret de Coneferes							
Clairs	351	36	0	441	0	441	1836

Table 13 (Continued):
1983 Land Use/Land Cover by Fourth Order Watershed
Tiburon - Port Salut Primary Watershed
Primary Watershed Code 22-00
(Continued)
(Areas in hectares)

	12-02	12-03	12-04	12-05	13-00	14-00	Totals
ZONES URBANISEES							
Centre Rural	0	0	0	0	36	0	45
ZONES NON-AGRICOLE							
Marais							
Mangrove Cotière	0	0	0	0	81	0	189
Marais Interieur	0	0	0	0	0	0	63
Zones Stériles							
Roche et Sable	0	0	0	0	153	0	189
Totals	1809	1512	2412	2880	7038	7758	68481