Table 3 LIST OF EXISTING SMALL SCALE PRODUCTION FACILITIES

											····		~ <del>~</del>		-	·						7-		1		<del></del>		٦		r		7						
NUMBER OF WELLS		-	4 6	-	1	7		۳,	2	12							1	1	-		!		\$3			1			}		87			EAST,			IVELY	(556, 854 M3/D).
DISTRICT OF WASA		B	e' 1.	់ ស	м ш	ن ح	S.	evi ⊝ri	P. O. S.				TOBAGG		-		្ត	ស	S.E.															S. E.; SOUTH EAST,	Œ	â	PATION. IY RESPECT	38 (555, 85
KIND OF CIEMICAL USE		į	3 5	3.5	5	5	; ;	겁	13								5	***************************************	C.															NTRAL, S.	TRIBITE NI	MT 1317 117	II ; FILTI ON FACILIT	117 IN 192
<b>Ξ</b>		1			٠	*	+	•	*								*	- :	•															OPTH CE	A! AUCE	John College	ION, F	N CAPAC
TREATMENT PROCESS Are Fil C		-		*		:		*				1	$\frac{1}{1}$									-		_			-	+				-		N. C.; NORTH CENTRAL,	VCTEM R	יים וריו	: AERAT	0DUCT10
INSTALL FLOW METER A			- C	0	×:	><	0	0	×	(0-5 X-3)	- 1		×	%-13	 }		0	-		;	(5) (5)		(0-8, X-4)			×	× <	>	(0-1, X-2)	1	(0-13, X-40)			DRTH EAST,	OUTH WEST,	JIIL HALLIN J	ATION; Are LOW METER AT	AGE DAILY PA
1988's AVERAGE DAILY PRODUCTION (M3/D)		660	000	841	644	577	482	393	386	5 107	<b>\$</b> 2		5	62	(\$ 00.00 \$)		725	613	521		1,858	0.50	986	8		191	760	31	306	1	12, 415	1.9 %)		ST, N.E.: N	AL, S.W.: St	DEFICES IN TA	NI CHLORIN	TO TOTAL AVERAGE DAILY PRODUCTION CAPACITY IN 1988
DESIGN PRODUCTION CAPACITY (M3/D)		200	7, 000		3,000	1, 863	623	980	1, 178	10 127	)		335	335	}		1, 136	630	718		2, 484		12, 946			:	28	•	180	;	18, 341			R.; NORTH WE.	SOUTH CENTR	S PECTONAL S	TED LINE, CI	
E :: 8	=GROUN	TRINIDAD	MAYADO WELLS	GUAYAGUAYARE #1 WELL	ARIMA #5 WELL	AROUCA WATERWORKS	CLARKE ROAD WELLS		1	StiB-TOTAL			GOVERNMENT FARM #3 WELL	SUB-TOTAL		SPRING	GUARACARA SPRING	MAYO SPRING	MORICAL SPRING		SUB-TOTAL		TOTAL	(GOUNDWATER SOURCE)	PURCHASED	:	TEXACO TO POINT FORTIN	זאושותר ום החואו בחגווה	T O T A L (M3/D) (PURCINSED WATER)		GRAND TOTAL (M3/D)		NOTE:		S. F. & S. C.; SAN FERNANDO & SOUTH CENTRAL, S. W.; SOUTH WEST, - FACH DESIGN DONNICHTON CARACITIES ARE DIOTED FROM "THE WATER CYCLEM RAIANCE IN TRIBITAL)	AND "INFORMATION FROM WASA"	- CL : CHLORINE. LW : HYDRATED LIME. Chl : CHLORINATION. Are : AERATION. FILL : FILTRATION. - " O " AND " X " MEAN INSTALLATION OF AND WITHOUT FLOW METER AT EACH PRODUCTION FACILITY RESPECTIVELY.	- FIGURES IN PARENTHESES ARE RATIO (%)
.0X		ŀ	1		4		ص	^	<u></u>		_	1	573		<u>.                                    </u>	Ц		~1	~	- :	:	1	· :	-		_	~ -			Ļ		<u> </u>			: ;	-T-		
DISTRICT OF WASA		ر. د د	دا د ح	5 ∋= = >=	3± 2	су гл	3= Z	P. 0. S.	ر ا ا	и С	3E Z	ن ح	z :	ပ် ယ င် <b>င</b>	j ∌: '≳'	ci z	ن خ	a≓ ~	æ	، نن ح	د نه د نه	1 L	1 (u)	м п		- 1	13 E	نا د ع			-+	<del>-</del>	÷		TOBAGO	ONHOOT		
KIND OF CIEMICAL USE		ರ	3 5	3 5	ಶ	3	ರ	ರ	ರ	3 0	ដ	ರ	ಕ ಕ	3 2	3 3	ಕ	ಕ	ಪ	ಕ	ದ	5 5	3:0	ತೆ ಪ	3	ಕ	ರ	ಕ	ತ ಕ				ರ	ರ ರ	35	ರ	75		
TREAT- MENT PROCESS		+	• ,	•	*	*		*	•	* *		*	*	• •	*	*	+	•	•	*	• [		*	+	+	+	*	* *				*	• •	*	# 1	•	Ć.	
INSTALL FLOW METER		×:	<:>	< >	×	0	<b>×</b>	×	×:	< >	<×	×	×:	× ×	0	×	~	><	×	×	× >		< ×	×	×	×	×	×!×	(0-2, X-30)			0	×C	×	×>	-	(0-2, X-4)	(0-4, X-34)
1988's AVERAGE DAILY PRODUCTION (M3/D)		510	TOG	7 KG	284	272	241	193	142	100	96	88	8	17	2 23	59	59	44	44	331		C L	38	32	స్ట్	27	27	18	4, 188	( 0.64 %)		418	321	27	φ. c	OT		5, 143
DESIGN PRODUCTION CAPACITY (M3/D)		840	1 07	107	900				327	902			06	21 22 24	2 1	-	,	61	06	45	145	207	2 4 2 K	45		ı	1 14	45.65	4.321	,		900	88 58	34	2,5	67	894	5, 215
NAME OF PRODUCTION FACILITY (WATERWORKS, INTAKE, WELL, SPRING AND PURCHASED WATER)	-SURFACE WATER SOURCE-	ST. ANN'S WATERWORKS	SANS SOUCI	DAMIER INTAKE	TYRICO INTAKE	BICHE WATERWORKS	GUAICO TAMANA/LAS CUEVAS INTAKE	CASCADE INTAKE	ARIAPITA INTAKE	LA CANDA INTAKE DIRE INTAKE	LA PASTORA RES. ROAD	Mt. D'OR INTAKE	PIPIOL INTAKE	LOS ARMADILLOS INTAKE FOLIP POADS (TAMANA INTAKE	LA PASTORA/CAPRIATA INTAKE	LOANGO INTAKE	WATERFALL ROAD INTAKE	BLANCHISSEUSE INTAKE	MON REPOS INTAKE	GRAND RIVIERE INTAKE	LOPINOT INTAKE	MAIGLOL INIANE MATTIDA TUTACE	MAIUKA INIKAE MONTEVIDEO INTAKE	SALIBEA INTAKE	ARIPO INTAKE	BRASSO SECO-PARIA INTAKE	MORNE LA CROIX INTAKE	CUMACA INTAKE SURREY VIII AGE INTAKE	SUB-TOTAL		TOBAGO	CHARLOTTEVILLE INTAKE	SPEYSIDE INTAKE	L ANSE FOURNI INTAKE	PARATUVIER INTAKE	BLUUDT BAT INTANE	SUB-TOTAL	TOTAL (M3/D)
%				2		عاد	~	တ	07		12	13	7	2 2	2 2	8	13	50	71		_	4 K	3 2	12	28	23	8	3	3				<b>%</b> %	38	5	ž,		

Table 4 RESULT OF PILOT LEAKAGE SURVEY

			3	[2]	[3]	[4]	[2]	[9]	[7]	[8]	[9] [5]-[8]	[8]/[5]	[11]	[12]
ż	Town	Area	Number of House	No. of Persons a House	No. of Persons	Isolated Block (Ka2)	Total Flow (m3/day)	Minimum Flow (m3/h)	Night Pressure (Kg/cm2)	Leakage (m3/day)	Water Consumption (m3/day)	Leakage	Water Consumption (%)	Per Capita Consumption (1pcd)
	DIEGO MARTIN	DIAMOND VALE	69	4.4	304	0.57	91.554	2.51	3.40	50, 268	40.749	54.91	45.09	135. 99
7	DIEGO MARTIN	VICTORIA GARDEN	91	4.4	400	0.94	605, 137	27. 12	2. 60	453, 331	151, 825	74.91	25.09	379.18
က	DIEGO MARTIN	VICTOTIA GARDEN	91	4.4	400	0.94	254, 373	8, 92	3. 70	161. 764	92. 608	63, 59	34. 41	231.29
*	DIEGO MARTIN	DIAMOND VALE	58	4.4	255	0.54	144. 450	3.81	2.40	79, 438	65.012	54, 99	45, 01	254.75
	5 St JOSEPH		43	4. S	185	0.40	73, 908	1,25	2, 60	23.415	50. 493	31.68	68.32	273.08
9	St JOSEPH	VALSAYN	80	4.3	344	2.20	333, 125	11.70	0.40	280. 346	52, 779	84, 16	15.84	153.43
	TOBAGO	PLYMOUTH	280	4.7	1316	2.80	342, 924	4.70	4.70	178.571	164, 353	52.07	47.93	124.89
ص	8 ARIMA	NETTOVILLE	91	4.4	400	1. 58	140, 192	3.49	2.80	80.028	57.163	59. 22	40.78	142.77
6	3 ARTIKA	TUMPUNA	102	4,4	448	0.87	130, 967	3, 73	4.20	260, 256	149, 289	50.34	57.36	332. 64
10	PORT OF SPAIN ST. JAMES	ST. JAMES	116	3. 1	360	1.18		1	,			1	- 1	,

Note: [2] Source: Households Budgetary Survey 1989, CSO

Table 5 FINANCIAL OPERATIONS OF WASA (1985-1989)

		<u>T)</u>	<u>T\$ 1,00</u>	0,000)
1985	1986	1987	1988	1989
31.5	43. 3	110.1	114.4	121.8
255.8	247.7	244. 8	219.3	197.8
191.0	183. 3	160.4	152.4	134.1
3.4	3.8	3, 3	3. 3	2. 1
				4.9
	0.1	0. 2	0. 2	0.3
61.4	60.5	80.9	63.4	56.4
-224. 3	-204. 4	-134.7	-104. 9	-76.0
		401.0		10.5
233.8	168.0	134. 2	62.8	43. 5
	** :-			00.5
9, 5	<del>-</del> 36.4	-0.5	<b>-42. 1</b>	-32. 5
28. 1	2.5	5.0		22. 8
4.0		0.9	1.8	1.5
60.0		13. 5	7.9	13. 2
-27.9	2. 5	-7.6	-6.1	11. 1
girate.				
-18. 4	-33. 9	-8. 1	-48. 2	-21.4
6, 095	6, 095	5, 975	5, 225	5, 052
	31. 5  255. 8  191. 0  3. 4   61. 4  -224. 3  233. 8  9. 5  28. 1  4. 0  60. 0  -27. 9  -18. 4	31. 5	1985         1986         1987           31. 5         43. 3         110. 1           255. 8         247. 7         244. 8           191. 0         183. 3         160. 4           3. 4         3. 8         3. 3                61. 4         60. 5         80. 9           -224. 3         -204. 4         -134. 7           233. 8         168. 0         134. 2           9. 5         -36. 4         -0. 5           28. 1         2. 5         5. 0           4. 0          0. 9           60. 0          13. 5           -27. 9         2. 5         -7. 6           -18. 4         -33. 9         -8. 1	31. 5     43. 3     110. 1     114. 4       255. 8     247. 7     244. 8     219. 3       191. 0     183. 3     160. 4     152. 4       3. 4     3. 8     3. 3     3. 3             -0. 1     0. 2     0. 2       61. 4     60. 5     80. 9     63. 4       -224. 3     -204. 4     -134. 7     -104. 9       233. 8     168. 0     134. 2     62. 8       9, 5     -36. 4     -0. 5     -42. 1       28. 1     2. 5     5. 0        4. 0      0. 9     1. 8       60. 0      13. 5     7. 9       -27. 9     2. 5     -7. 6     -6. 1       -18. 4     -33. 9     -8. 1     -48. 2

SOURCE: "TRINIDAD AND TOBAGO, RECENT ECONOMIC DEVELOPMENTS",

IMF, APRIL 1990.

NOTE : (\*) INCLUDES SEVERANCE AND PENSION PAYMENTS RESULTING

FROM VOLUNTARY SEPARATION AND RETIREMENT PROGRAMS.

Table 6 POPULATION AND WATER DEMAND PROJECTION 1990-2005 (1)

			Tota!	29, 261	44, 432	58, 142	2, 734	2, 800	8, 474	11, 563 }	24, 266	34, 823	20, 245	9, 223	21, 813	10, 466	11, 636	26, 125	17, 118	8 919	9 779	186 530	3 808	24, 253	27, 556		3 108	100, 398	13, 864	16, 705	26, 36,	10 042	9, 482	12, 052	10, 648	16, 365	645	617, 083	24, 773	20, 686	4.087	S41, 856	
			Special			39, 976						21, 121			•			_				105 799	:			106, 799												156, 376				155, 376	
		121		29, 261	34, 832	118, 166	2, 734	2, 800	8, 474	11,663	14, 337	13, 702	11, 319	9, 223	21, 813	10,466	11,638	26, 125	17, 118	8, 919	2 730	16. 52	3.88	24, 263	27, 556	24, 103	3, 108	100, 938	13, 964	16, 703	18, 043	16 049	9, 482	12, 052	10,648	16, 365	845	450, 707	24, 773	20,686	4.087	485, 480	
		WATER		29, 155	17, 572	7, 911	101		88			3,042	931		1, 583	2, 456	-		1.507		9 779	10 221	1	470	6.318	2, 943	3, 108	9, 903	1, 358		4, 293	2,340	ř		10,648	11,663	645	104, 282				104, 282	
				107	26, 850	150, 231	2, 633	2, 300	8, 445	11, 663	24, 266	31, 780	19, 554	3, 223	20, 230	8,000	11, 636	26, 125	15, 611	8 910	2	175 100	28.6	23,793	20, 538	127, 950							9,482			4, 702		512, 801				512, 801	
	1995		Served by Sources 11	70, 593	39, 311	18, 131	226		7			7, 366	1, 672			5, 970			4 740		215	0 0 TO	F.TO 177	137	16, 751	7, 125	9, 774	25, 887	4, 271		13,590	45.	106		33, 484	36, 675	2.028	275, 250				275, 250	
1			Served by Se Sources 1 So	528	38, 612	255, 775	5, 830	6, 254	18,894	26,093	32, 073	25, 810	25, 735	20, 632	48. 584	19, 371	26, 031	63, 258	49 091	1 LPU 86	15.07	060 033	0 22	57 610	70.07	51, 236		251, 139	39, 641	52, 545	38,836	23, 782	21, 124	26. 961		14, 788		835, 357		•		895, 967	
		POPULATION	72	70,851	323	ı			- 6									1	57 835	28 D47	110.07	0,014	153, 032	177 6	66, 739	28,381	9,773	277, 028	43, 912	52, 545	52, 338	60, 917	46, 100	28, 961	33, 483	51, 463	2,028	. 171. 217	62 941	50,087	12, 854	1, 234, 158	
		图	Service Area	74, 581	82, 025	289, 375	6, 438	6, 594	19, 955	27, 466	33, 761	34, 922	28, 849	21, 718	55, 597	26, 674	27 401	66 587	P39 95	20 592	030 0	3,000	202, 213	207 13	70 234	61, 433	10, 288	291, 609	46, 223	55, 310	55, 092	64, 123	92, 232	28 380	35.246	54.171	2, 135	1, 232, 852	68 253	52 723	13, 530	1, 253, 116	
			Total	75, 583	82, 928	297, 995	6, 438	5, 594	19, 955	27, 466	33, 761	38, 658	28, 849	23, 134	56 048	26, 703	30, 389	71 508	63 611	25 211	32, 311	10, 137	211 233	707 '5	75. 588 75. 504	64, 945	10, 500	294, 215	48, 829	55, 310	55, 092	64, 123	48, 532	28 380	36 763	55, 636	2, 736		66 707	52 723	13, 984	1, 340, 363	
-			Total	30, 911	49, 085	65, 491	3 073	3, 147	9, 525	13, 109	25, 945	35,005	19, 674	9,300	954 45	10, 525	11, 734	75 977	17 533		0,021	7 70	20.00	20 00	2, 63	130, 585	3 446	108, 475	15, 779	17, 940	18, 022	26, 577	20, 115	14 459	11 562	17 676	651	642, 485	781		4, 274	666, 267	
		(#3/q)	Special		9, 505	39, 580	• •				_	20, 912	_						1	<b>†</b>		Ī	105, 741			105, 741	Γ						,	T				154 825	12.4			154, 826	
	-	DEMAND (	1	30.911	39 579	125 911	3.073	3 147	525	13 109	16 114	14.093	10, 835	300	24 455	10,575	734	35 077	17,50	11, 500	0,061	2, 764	7, 833	3,7/8	22,033	24, 844	3 446	108, 475	15, 779	17, 940	18, 022	26, 577	20, 115	17, 037	11 567	17 676	651	487, 659			4, 274	511.440	
		WATER		30 799	19, 378	8 152	113		32	;		3,059	26			2 479			107	1,35		2, 764		. 7 0 7	404	3,000	3 44K	9 692	1, 489		4, 662	3, 113	428		11 569	17 570	851	111 121	1771			111, 121	
	-		Area I	=	29, 707	157 130	2, 959	3.147	0 493	13	25, 045	31, 946	18 979	300	000	36,5	11 734	25 027	010	10.010	9, 821		175, 650	3,778	23, 370	127, 552		98, 783	14, 290	17, 940	13, 359	23, 464	19, 587	14 450	14, 190	5 108	2, 20	531 3E4	1011			531, 364	
	1990		Served by	85.570	37, 996	-L-	223	•	63			5 508	477		3 175	, n	,		300	629		7,430	22,518		1.03	13, U33	9 785	24 069	4,003		12, 533	6, 623	911		21 080	33, 700	1 740	254 844	110,170			254 844	
			Served by Se	0PC	39.610	230 016	208	8 179	2 2 2	25,705	31.5	23, 477	21, 578	18 236	350 07	12, 230	23 007	100,00	33. 271	43, 037	23, 712		147, 466	8,038	57.150	43, 298	201	234 054	38, 413	48, 227	35, 912	49, 924	41,887	20,030	00° 07	19 797	77 '71	825 028	070,070	•	•	825 028	
	٠.	RULTA HIGH			77 807	Ι.	8.008						23 058	18 936	20, 630	22, 031	22, 334	100 77	177 '66	47, 133	23, 712	-4				50,533	╀	258 173	42, 416	48, 227	48, 445	55, 547	42, 798	13, 050	31 990	77 517	1 7/0	1 070 879	1,013,012	565.70	11, 490	1 137 857	
		8	Service	50 23	81 661	270 402	201,017	496	858	27,058	33 950	31.553	24 250	10.105	10,140	99, 708	24.07.0	0017,47	38, 100	49, 514	24, 960	7, 821	178, 931	8 461	53, 428	55 542	75.0	221 70	44, 549	50, 765	50, 935	59, 523	45, 050	20, 720	710 67	50,019	30,000	1 126 709	1. 130, 700	33, 794	12 095		
			Total	131, 02	87 530	970 073	6 342	907	95.0	22,030	950 . 66	34.858	37.76	277.00	756 22	25, 215	23, 001	50, 03	01, 467	55, 755	27, 365	8, 761	186, 144	8, 461	55, 597	58 823	10 039	774 500	47, 531	50, 765	50, 994	59, 523	45,050	20, 726	23. 642	34, 123	000 10	1 170 505	1, 1/2, 363	20, 195	12, 505	1 020 020	1, 440, 100
	Y E A 30	ADOL OTHER	MAYEN ANEA	ALLOS ODDER	2 DOOF OF COATE	Date (Manual Control of the Control	J. E. S. P. COMMUNALIES	2.5 Tarrontillo	S. C. Larentille	S. S. MOLYBILL	3.4 Fictor	2.5 Serateria	<b>.</b>	100	3. 8 Jacarigua	3.8 Saddle Road	3.10 St. Augustine	3, 11 Tunapuna	4. ARIMA	5. SANGHE GRANDE.	6. WALLERFIELD	7. TOCO	_			8.3 Chaguanas	- 12	10 DIO CLADO	10 1 Arch Trace	10.2 Princes Town	10.3 Barrackpore	10.4 Fyzabad	10.5 Palmyra	10. 6 Marabeila	II. SAN FERNAND	12. SIPARIA/EHIM	13. POINT FURITA	14. NUKIR COASI	TUTAL (THINIDAD)	15. TOBAGO	15.1 Leeward Sect.	TOT DESCRIPTION OF THE PROPERTY OF THE PROPERT	10186

Table 6 POPULATION AND WATER DEMAND PROJECTION 1990-2005 (2)

		Total	27, 516	39, 303	155, 100	2, 342	2, 399	7, 260	8, 383	23, 026	35, 387	22, 313	20.5	10,00	11.986	27, 732	17, 135	9,449	2, 836	200, 236	4, 065	26, 372	23, 543	140, 431	Ç /93	34, 773	15, 402	15, 339	24, 249	18, 353	3, 059	3, 202	9, 754	15, 158	651	611, 512	27, 905	23, 350	5. 850	638, 517	
	( <b>m</b> 3/d)	Special		10, 387	43, 252					10, 743	22, 852	, 25 25 26 26 27								115, 550			5	nec 'e11		-										169, 190	-			169, 190	
	DENAND (	General	27, 518	28, 915	111,848		2, 399	7, 260	9, 883	12, 284	13, 745	12, 662	20.5	18,854	11 966	27. 732	17, 135	9, 449	2, 836	84, 586	4,065	26, 372	29, 543	00/ 67	7, 700	94,773	201 71	15,339	24, 249	13, 353	9,059	9, 202	9, 754	15, 159	651	442, 423	27, 905	23, 950	3, 340	470, 328	
	WATER	Arca II	27, 416	15, 361	7, 903	86		24			3, 156	717		8			1, 539		2, 835	10, 533		476	7, 170	702.7	7, 760	8,410	7. 74		2,840				9, 754	10, 851		98, 127				58, 127	
		- 23	Ι.	23, 941	147, 190	2, 256	2, 339	7, 236	9, 993	23, 026	33, 441	21, 603	9, 484	17, 486	11 956	27, 732	15, 596	9, 449		189, 603	4, 065	25, 896	22, 373	77,703		86, 363	16, 833	13, 071	21, 409	17, 982	9, 059	9, 202		4, 308		513, 484				513, 484	
2005		Served by Art	79, 929	41, 743	23, 038	235		99			8, 202	2, 083	;	200	/, 45¢		6, 130		11, 298	31,001		1, 387	20, 905	0. / 10	11.022	30,052	705.7	15 558	8, 279	1, 138			38, 859	43, 233	2, 595	318, 901			:	318, 901	
		Served by Se Sources I So	293	3	12	윤	뭂	13, 663	27, 155	33, 379	30, 872	34, 828	25, 773	50, 979	24, 197	80 853	82. 134	37, 647		215, 896	11,850	75, 499	65, 226	63, 32U	-	290, 527	43, 741	45 641	62, 417	52, 369	24, 617	25,005	-	17, 162		1, 058, 359				1, 058, 353	
	POPULATION	Served S	80, 221	78, 575	315,048	6, 365	6,520	19, 730	27, 155	33, 379	40,074	36, 918	25, 773	54, 958	31, 654	80 853	68, 265	37, 647	11, 298	246, 897	11,850	76,886	86, 131	72, 030	11,022	320, 582	48, 213	67 111	70, 697	53, 508	24, 617	25, 005	38, 859	60, 394	2, 595	377, 263	85, 573	69, 854	15, 720	1, 462, 836	
	2	Service Area	84, 443	82, 710	331, 631	6, 700	6, 863	20, 768	28, 584	35, 136	42, 183	38,859	27, 129	57, 861	33, 320	85 108	71,858	39,628	11,893	259, 892	12, 474	80, 933	90, 664	75. 821	11, 502	337, 455	30, /31	271.00	74. 418	56, 324	25, 913	26, 321	40, 904	63, 573	2, 732	449, 750	90, 077	73, 530	16, 547	1, 539, 827	
·	***************************************	Total	85, 578	83, 733	342, 306	6, 700	6, 863	20, 768	28, 584	35, 136	46, 850	38, 859	28, 898	58, 331	33, 356	03 037	80, 536	43 285	13, 322	269, 840	12, 474	84, 034	93, 230	80, 102	11, 752	339, 696	52, 392	03, 727	74, 418	56, 324	25, 913	26, 321	42, 665	65, 285	3, 502	. 501, 756 1	90, 616	73, 530	17, 086	1, 592, 372 1	
		Total	28, 470	41, 402	155, 503	2, 490	2, 550	7,717	10, 621	23, 313	35, 535	21, 415	3, 361	19,98	10, 694	27 250	17 233	9 313	2, 795	192, 154	3, 947	25, 366	28, 480	134, 362	2, 896	96, 834	12, 797	15, 033	24, 478	18, 526	9, 163	10, 281	10, 100	15, 609	658	610, 509 1	26, 625	22, 597	4, 028	637, 134	
	■3/d)	Special		9, 918	4	•		•		10, 257	21,	တ်	•••							110, 327				110, 327				•								161, 541				161, 541	
	DEMAND (	·	28, 470	31, 485	114, 206	2, 490	2, 550	7,717	10, 621	13, 055	13, 716	12, 195	9, 361	19, 938	10, 694	27 250	17, 233	9 213	2, 785	81, 827	3, 947	25, 366	28, 480	24, 034	2, 896	96, 834	12, 797	15,035	24, 478	18, 526	9, 163	10, 281	10, 100	15, 609	658	448, 967	26, 625	22, 597	4, 028	475, 593	1
	WATER	Area II	28, 366	16, 362	7, 903	32		28			3, 109	708		1. 451			25.5	202.	2, 796	10, 367		468	5, 964	2, 934	2, 896	8,616	1, 283	7 029	2.867	384			10, 100	11, 149	658	100, 753				100, 753	
	-	Area I	201	25.041	147 600	2, 398	2, 550	7, 691	10,621	23, 312	32, 426	20, 710	9, 361	18,547	8, 175	27 250	15 805	0 213	270.0	181, 787	3, 947	24, 897	21, 515	131, 427		88, 217	11, 514	10 035	21. 611	18, 132	9, 163	10, 281		4, 461		509, 757				509, 757	
2000	-	·	76,049	40, 803	21, 185	229		65			8, 334	1, 891		3, 891	6, 755		207 5	200	986	27, 794		1, 256	18, 671	7.857	10, 345	27, 869	4, 582	7,7	7, 586	1, 057			35, 071	39, 816	2, 351	297, 744				297, 744	
		Served by Served by Sources I Sources I	278	37 713	274 235	5.979	8.359	19, 180	26, 486	32, 557	28, 437	30, 803	23, 343	49, 723	21, 916	70 00 02	56 052	33 260	20.00	181, 581	10, 581	66, 749	57, 682	28, 589		269, 796	41, 121	207 7	57. 940	48, 612	22, 851	25, 640		15, 931		977, 565				977, 565	
	POPULATION			<u> </u>	L.	6, 208						32, 594	23, 343	53, 614	28, 670	72 080	61 547	33 250	986	₩.			76, 353	{	$\dashv$	<u> </u>		27, 288				Ŀ	ı	55, 747	2, 351	275, 308	74, 969	60, 583	14, 386	1, 350, 277	
	182	Service	80,345	82, 548	310, 946	5, 535	5, 694	20, 258	27, 880	34, 270	38, 707	34, 414	24, 572	56, 436	30, 179	200 TC	F. 78F	25, 700	10 512	230, 921	11, 138	71, 584	80, 372	67,827	10,889	313, 332	48, 108	50, 282	69 079	52, 283	24, 054	26, 989	37, 969	58, 681	2,475	342, 430 1	78, 914	63, 771	15, 143	421, 344	_
		Total	81, 425	L	<u> </u> _	6.535							26, 174	56, 894	30, 212	34, 302	72 K47	28 243	11 775	239, 840	11, 138	74,358	82, 639	71, 704	11,054	315, 688	50, 464	50, 282	89.027	52, 283	24,054	26, 989	39, 604	60, 265	3, 172	389, 143	79, 415	63, 771	15, 644	1, 468, 558 1, 421, 344 1, 350, 277	
YEAR	TATER AREA		1. DIEGO MARTIN	2. PORT OF SPAIN	3. F. M. R. COMMINITIES	3. I St. Barbs	3.2 Layentille	67	4	L.P.	3.6 St Joseph		œ	3.9 Saddle Road	3.10 St. Augustine	A ADTM	S CANCRE CRANNE		7 TOCO	B. CARONI	8.1 Caroni	8.2 Cunupia	8. 3 Chaguanas	8.4 Couva	S. MAYARO	10. R10 CLARO	10.1 Arch Trace	10.2 Princes Town	10. a barrachore	10.5 Palmyra	10.5 Marabella	11. SAN FERNANDO			14. NORTH COAST	TOTAL (TRINIDAD)	15. TOBAGO	15.1 Leeward Sect.	15. 2 Windward Sect.	TOTAL	

ISTRICT OF WASA NORTH ENTRAL	HAME OF PRODUCTION FACILITIES WATERWORKS/TREATMENT PLANTS INTAKES, WELLS AND SPRINGS  1 CARONI/ARENA TREATMENT PLANT 2 * VALSAYN WATERWORKS 3 * TACARIGUA WATERWORKS 4 LAS LOMAS WATERWORKS 5 CAURA WATERWORKS 6 LOANGO/NARANJO WATERWORKS 7 * ARGUCA WATERWORKS	KIND OF SCALE LARGE-S MEDIUM-G MEDIUM-G MEDIUM-G MEDIUM-S	SURFACE RAINY (m3/d) 272, 760	DRY (m3/d) 272, 760	GROUND RAINY (m3/d)	DRY (#3/d)	RAINY (m3/d) 272, 760	T A L DRY (#3/d)
WASA NORTH	INTAKES, WELLS AND SPRINGS  1 CARONI/ARENA TREATMENT PLANT 2 VALSAYN WATERWORKS 3 TACARIGUA WATERWORKS 4 LAS LOMAS WATERWORKS 5 CAURA WATERWORKS 6 LOANGO/NARANJO WATERWORKS	SCALE LARGE-S MEDIUM-G MEDIUM-G MEDIUM-G MEDIUM-G MEDIUM-S	(a3/d) 272,760	(m3/d)		(#3/d)	(∎3/d)	
NORTH	1 CARONI/ARENA TREATMENT PLANT 2 * VALSAYN WATERWORKS 3 * TACARIGUA WATERWORKS 4 LAS LOMAS WATERWORKS 5 CAURA WATERWORKS 6 LOANGO/NARANJO WATERWORKS	LARGE-S MEDTUM-G MEDTUM-G MEDTUM-G MEDTUM-S	272, 760	272, 760		*****	272 760	970 70
ENTRAL	3 • TACARIGUA WATERWORKS 4 LAS LOMAS WATERWORKS 5 CAURA WATERWORKS 6 LOANGO/NARANJO WATERWORKS	MEDIUM-G MEDIUM-G MEDIUM-S			******	1	. LIE, (UU.	272, 76
	4 LAS LOMAS WATERWORKS 5 CAURA WATERWORKS 6 LOANGO/NARANJO WATERWORKS	MEDIUM-G Medium-s			27, 280	27, 280	27, 280	27, 28
	5 CAURA WATERWORKS 6 LOANGO/NARANJO WATERWORKS	MEDIUM-S			14, 550	14, 550	14, 550	14, 55
	6 : LOANGO/NARANJO WATERWORKS				11, 360	11, 360	11, 360	11, 36
			11, 360	9, 094	.,,		11, 360	9,09
	7 : * AROUCA WATERWORKS	MEDIUM-S	3, 180	2, 214			3, 180 653	2, 21 65
	* · · · · · · · · · · · · · · · · · ·	SMALL-G			653	653	454	45
	8 * ST. JOHN'S INTAKE	SMALL-S SMALL-S	454	454 88			88	
	9 * Mt. D' OR ÎNTAKÊ	SMALL-S	88 59	59			59	
	10 * WATERFALL ROAD INTAKE 11 * LOANGO INTAKE	SMALL-S	59	59			59	
	12 * LOARGO INTAKE	SMALL-S	35	35			35	
	13 * SURREY INTAKE	SMALL-S	18	18			18	j
	LARGE-S	1.1.2.1.2.	272, 760	272, 760	0	Ö	272, 760	272, 76
	MED1UM-G		0	0	53, 190	53, 190	53, 190	53, 19
	MEDIUM-S		14, 540	11, 308	0	0	14, 540	11, 30
	SMALL-G		0	0	653	653	653	65
1	: SMALL-S		713	713	0_	0	713	71
	SUB-TOTAL		288, 013	284, 781	53, 843	53, 843	341, 856	338, 6
ORTH	14 NORTH OROPOUCHE WATERWORKS	LARGE-S	90, 125	44, 825			90, 125	44, 87
EAST	15 + HOLLIS WATERWORKS	LARGE-S	31, 826	25,000			31, 826	25, 00
	16 : GUANAPO WATERWORKS	MEDIUM-S	11, 360	11, 360			11, 360	11, 30 8, 0
	17 ARIPO NEW WATERWORKS	MEDIUM-S	10, 530 4, 535	8, 059 4, 535			10, 530 4, 535	4, 5
	18 * ARIPO INTAKE	MEDIUM-S MEDIUM-S	4, 535 2, 935	4, 535 2, 935			2, 935	2, 9
	19 * QUARE INTAKE (VALENCIA) 20 * TOCO WATERWORKS	MEDIUM-S	2, 162	1, 525			2, 162	1, 5
	20 * 1000 WATERWORKS 21 : * ARIMA WELL #6	SMALL-G			644	644	644	64
	22 : * SANS SOUCH INTAKE	SMALL-S	493	493			493	4
	23 * LOS ARMADILLOS INTAKE	SMALL-S	105	105			105	11
	24 * FOUR ROAD/TAMANA INTAKE	SMALL-S	70	70			70	
	25 * CUMACA INTAKE	SMALL-S	45	45		~~~	45	
	26 * MATURA INTAKE	SMALL-S	35	35	~		35	
	27 * MATELOT INTAKE	SMALL-S	35	35			35	
	28 : * GRAND RIVIERE INTAKE	SMALL-S	35	35			35	
	29 : * SALIBEA INTAKE	SMALL-S	35	35			35	
	30 * MONTEVIDEO INTAKE	SMALL-S	35	35			35	
	31 * MORNE LA CROIX INTAKE	SMALL-S	27	27			27	
	32 * BRASSO SECO-PARIA INTAKE	SMALL-S	27	27			27	69, 8
	LARGE-S		121, 951	69, 825	0	0	121, 951 31, 522	28, 4
	MEDIUM-S	<b> </b>	31, 522	28, 414	644	644	644	64
	SMALL-G SMALL-S		942	942	017	0 11	942	9.
	SUB-TOTAL		154, 415		844	644	155, 059	99. 8
ORTH	33 * FOUR ROADS WATERWORKS	MEDIUM-G			28, 900	28, 900	28, 900	28, 9
WEST	34 • EL SOCORRO WATERWORKS	MEDIUM-G			24, 126	24, 126	24, 126	24, 1
WILDI	35 * TUCKER VALLEY WELLS	MEDIUM-G			7, 971	7, 971	7, 971	7, 9
	36 * RIVER ESTATE WATERWORKS	MEDIUM-G	l		6, 820	6, 820	6, 820	6, 8
	37 : * CHAGUARAMAS WELLS	MEDIUM-G			5, 669	5, 669	5, 669	5, 6
	38 : * DORRINGTON GARDEN WATERWORKS	MEDIUM-G			5, 400	5, 400	5, 400	5, 4
	39 : * LA PASTORA WELLS	MEDIUM-G			2, 900	2, 900	2, 900	2, 9
	40 ACONO WATERWORKS	MEDIUM-S	2, 100	1, 543			2, 100	1,5
	41 : * DAMIER INTAKE	SMALL-S	358	358	<del>-</del>		358	3
	42 * TYRICO INTAKE	SMALL-S	305	305		<del></del>	305	3
	43 * GUAICO TAMANA/LAS CUEVAS INTAKE	SMALL-S	266	266			266	2
	44 * LA CANOA INTAKE	SMALL-S	200	200			200 94	
	45 * LA PASTORA RES. ROAD	SMALL-S	94	94			90	
	46 * PIPIOL INTAKE	SMALL-S SMALL-S	90	90 88			88	· ·····
	47 LA PASTORA/CAPRIATA INTAKE 48 * MON REPOS INTAKE	SMALL-S	88 45	45			45	
	48 * MON REPOS INTAKE 49 * BLANCHISSEUSE INTAKE	SMALL-S	44	44			44	
	#EDIUM-G	1 200 0	0	0	81, 786	81, 786	81, 786	
	MEDIUM-S	<b></b>	2, 100	1, 543	0	0	2, 100	1,5
•	SMALL-S		1, 490	1, 490	0	0	1, 490	1, 4
	SUB-TOTAL		3, 590	3, 033	81, 786	81, 786	85, 376	84, 8
PORT	50 : * SAVANNAH WELLS	MEDIUM-G			12, 270	12, 270	12, 270	12, 2
OF	51 : * KING GEORGE V PARK WELLS	MEDIUM-G			10, 340	10, 340	10, 340	10, 3
SPAIN	52 : * ST. CLAIR WELL	MEDIUM-G			1, 820	1, 820	1, 820	1,8
	53 * MOKA WELLS	MEDIUM-G			1,590	1, 590	1, 590	1, 5
	54 * MARAVAL WATERWORKS	MEDIUM-S	5, 910	4, 770			5, 910	4, 7
	55 * PARAMIN WATERWORKS	SMALL-G			390	390	390	
	56 * ST ANN'S WATRWORKS	SMALL-S	840	840		ļ <del></del>	840	
	57: * CASCADE INTAKE 58: * DIBE INTAKE	SMALL-S SMALL-S	207 145	207 145			207 145	

ESTIMATED DEPENDABLE YIELDS (2) Table 7

\* Estimated TOTAL GROUNDWATER SURFACE WATER NAME OF PRODUCTION FACILITIES KIND DISTRICT RAINY RAINY DRY WATERWORKS/TREATMENT PLANTS OF RAINY DRY DRY INTAKES, WELLS AND SPRINGS SCALE (m3/d) (m3/d) (m3/d) (m3/d) (m3/d)(m3/d) WASA SHALL-S 138 138 59 : \* ARIAPITA INTAKE 26, 020 26, 020 26, 020 26,020 n MEDIUM-G 5, 910 5, 910 4,770 n Ū 4,770 MEDIÚM-S 390 1, 330 SMALL-G Û n 390 390 390 1, 330 1, 330 1, 330 n a SMALL-S 26, 410 SUB-TOTAL 7, 240 6, 100 26, 410 33, 650 32, 510 CARLSEN FIELD WATERWORKS MEDIUM-G SAN 11, 175 11, 175 11, 175 11, 175 60 6, 165 17, 340 6, 165 17, 340 6, 165 17, 340 FREEPORT WATERWORKS MEDIUM-G 6, 165 **FERNANDO** 61 MEDIUM-G 0 17, 340 /SOUTH SUB-TOTAL 0 17, 340 17, 340 0 17, 340 17, 340 CENTRAL NAVET WATERWORKS LARGE-S 77, 280 77, 280 77, 280 77, 280 SOUTH 62 1, 358 1, 358 MEDIUM-G 1, 358 1, 358 EAST MALONEY WELLS 63 1, 194 1, 194 AMOCO TOURNEBRIDGE WELLS 1, 194 1, 136 1, 194 1, 136 MEDIUM-G 64 1, 136 SMALL-G 1, 136 GUARACARA SPRING 65 SMALL-G 897 897 897 GUAYAGUAYARE WELL #1 897 66 SMALL-G 792 792 792 792 67 MAYARO WELLS 718 MORICHAL SPRING SMALL-G 718 718 718 68 SMALL-G 630 630 630 630 MAYO SPRINGS 69 259 BICHE WATERWORKS 259 259 SMALL-S 70 77, 280 77, 280 77, 280 77, 280 LARGE-S 2. 552 2. 552 2, 552 2, 552 n MEDIUM-G ſì 4, 173 4, 173 4, 173 n n 4, 173 SMALL-G 259 SMALL-S 259 ñ ñ 259 259 84, 264 77, 539 SUB-TOTAL 77, 539 6, 725 6, 725 84, 264 6, 750 CHATHAM WATERWORKS 6, 750 MEDIUM-G SOUTH 6, 750 6, 750 PENAL WATERWORKS MEDIUM-G 3,500 3, 500 3, 500 3, 500 WEST 72 SIPARIA (COORA) WATERWORKS MEDIUM-G 033 3, 033 3, 033 3, 033 73 GRANVILLE WATERWORKS MEDIUM-G 2, 800 2, 800 2, 800 2, 800 74 1, 500 1, 500 MEDIUM-G 1, 500 1,500 75 FYZABAD WATERWORKS 1, 400 1, 400 MEDIUM-G 1, 400 1,400 76 CARAPAL WATERWORKS CAP DE VILLE WATERWORKS 1, 006 1,006 1,006 1,006 SMALL-G 980 78 POINT FORTIN WATERWORKS SMALL-G QRA 980 980 623 623 623 CLARKE ROAD WELLS SMALL-G 623 79 SMALL-G 180 180 180 180 80 TEXACO TO GUAYAGUARE 155 TRINTOC TO TECHIER SMALL-G 155 155 155 81 TRINTOC TO PT. FORTIN SMALL-G 69 69 69 69 82 MEDIUM-G 18, 983 18, 983 18, 983 18, 983 3, 013 21, 996 3, 013 21, 996 SMALL-G SUB-TOTAL 3, 013 3,013 n n 21, 996 Ω n 21, 996 LARGE-S 419, 865 471, 991 471, 991 419, 865 n ñ 199, 871 199, 871 199, 871 199, 871 MEDIUM-G Π TRINIDAD MEDIUM-S 54, 072 46,035 U B 54, 072 46, 035 8, 873 8, 873 8, 873 8, 873 SMALL-G 4, 734 739, 541 4, 734 679, 378 4, 734 4, 734 B SMALL-S 208, 744 TOTAL 530, 797 470, 634 208, 744 HILLSBOROUGH WATERWORKS MEDIUM-S 8, 582 7, 368 8, 582 7, 368 8, 582 8, 582 TOBAGO 83 ----MEDIUM-S 7, 368 7, 368 COURLAND WATERWORKS 84 3, 500 MEDIUM-S 3, 500 3, 500 HILLSBOROUGH WEST RIVER 3, 500 85 MEDIUM-S 3, 360 3, 360 3, 360 GREEN HILL INTAKE 3, 360 86 2, 994 KINGS BAY WATERWORKS MEDIUM-S 2, 994 2, 994 2,994 87 2, 467 RICHMOND WATERWORKS MEDIUM-S 2, 467 2, 467 2, 467 88 CRAIG HALL INTAKE GOV'T FARM WELL #3 MEDIUM-S 2, 461 2, 461 2, 461 2, 461 89 335 SMALL-G 335 Qn CHARLOTTEVILLE SMALL-S 388 388 388 388 -----91 SMALL-S 86 86 86 SPEYSIDE 86 92 SMALL-S 80 80 80 93 CASTARA 80 SMALL-S 70 70 94 PARLATUVIER 70 70 \* PARLATUVIER \* L'ANSE FOURMI SMALL-S SMALL-S 34 24 34 34 \* BLOODY BAY 24 24 30, 732 NEDIUM-S 30, 732 30, 732 30, 732 SMALL-G 335 335 335 335 682 SMALL-S 682 682 0 n TOTAL 31.414 31, 414 335 335 31, 749 31, 749 471, 991 471, 991 419, 865 LARGE-S 419, 865 n ß 199, 871 199 871 199.871 199, 871 TRINIDAD MEDIEM-G Λ n 76, 767 AND MEDIUM-S 84, 804 76, 767 n n 84, 804 9, 208 9, 208 9, 208 TOBAGO SMALL-G 0 0 9, 208 5, 416 5, 416 5, 416 SMALL-S 562, 211 209, 079 771, 290 711, 127 GRAND-TOTAL 502, 048 209, 079

NOTE: - " \* " MEANS NO INSTALLATION OF FLOW METER AT THE EXISTING PRODUCTION FACILITIES.

<sup>- &</sup>quot; -S" MEANS OBTAINING RAW WATER FROM SURFACE WATER.
- " -G" MEANS OBTAINING RAW WATER FROM GROUNDWATER.

LIST OF MONITORING AND CONTROL EQUIPMENT TO BE INSTALLED FOR CENTRAL SUPERVISORY SYSTEM (1) Table 8

VALS).	ŝ	: : : : : : : : : : : : : : : : : : : :	VALVE 10.   PLACE				ω :	<b>₹</b> 83		83	83	<b>≥</b> 83	3.	<u>.</u>	-	3		83	드	SS W	SSS	88	SS	SS =	SSS		SS	SSS
EXISTINGS (REPLACEMENT PERIPHERALS) INSTALLATION OF CONTROL EQUIPMENT.		36	PUMP VALVE NO.   PLACE NO.   PLA		_	*	m	62	7	CSS 4	æ	1.6		7 0	7	r.		SS .	4	SS				S.		-		
EPLACEMEN OF CONTR		<del></del>		ro.	~	15	12	=	5	38 2	18	on .	25	13	-		M	48	151	2 3	 	92		3	3	12	9	o
STINGS (R TALLATION		NG DATA SYSTEM (CSS)	PUMP ALARMITOTAL STATUS							4 17		1	-	-	-		:	6 25	-	6 25	-			8 25				
"¥"; EXI	II	SUPERVISORY S	NALVE STATUS			4	ъ	ຕ	2	4	9		F	4		r	5 4	ω.	9	4	F	e0	4.	5	1		ල ප	3
	PHASE	NUMBER OF MONITORING DATA CENTRAL SUPERVISORY SYSTEM	WATER FLOW PRESS RATE	2		S.	3	3.4	2 2	4 7	9	e2 2	1	4		r	47*	S	4	<del>د</del>		φ.	ຄ	9	1		m	3
TER (MM), TO BE USEI		BY CENT		3	1	Ţ.	2			2			-		+				-		+		ı-ai	-	_		₹	
HIGH WAY, PIPE DIAMETER(MM), EXISTINGS TO BE USED,		SER.	CONTROL 1			#BU 4	3	£80.3	#BU: 2		S #BU S	#BU 3	1			#50 2	¥AV 1	£.	#BU 4	2 280	1	#AV 1 80 1 #80 7	#AV 1	S R	#BU: 1	#BU : 4	#80 3	#BU: 3
HW : H) (300); P) "*" ; E)		EQUIPMENT AND NUMBER TO BE INSTALLED	FLOW	KPF 1	2	KAN 4. YV 1	YAN 5 40 1 47 1	¥an: 4	¥AN: 2	KAN 7	NA NA	XAN	KAN: 2	YAN 4		7 L	4 ¥AN 5	6 ¥AN 6	KAN 6	¥W.	KAN 1	1 AN 1	3 ¥AN 4	3 ¥4N 3 ¥7	YAN: I	4 KAN: 4	3 KAN	3 MAN : 3
JN, TYPE,		EQUIPMENT TO BE	<del></del>	7		8 19	2 ¥8 3	1 148	¥8 2		9 9	1 #B 2	- KB	1 #8 4		φ. Ω.	1 #8 4	9.	1 88				1 148	en eg	92			8,4
NG STATIC ENT PLANT, PRESSURE			LEVEL NOE METER	 		:: Э	O,	SITE		SITE #F	·	SITE KD	CYTE KA			1	₩.	CSS CITE	SITE	ρ	SITE	SITE #0	SITE NO	SITE	SITE	SITE	SITE D	TE
BOOSTER PUMPING STATION, WATER TREATMENT PLANT, DIFFERENTIAL PRESSURE TYPE.		EQUIPMENT TO BE CONTROLLED	UMP VALVE PLACE NO.   PLACE			. 4 SITE	3 SITE	က	2 SITE	<del> </del>	SITE	3 SI		3 SI		ਰਾਂ :		~1.0			1	7 SI	ന	<b></b> : ₹*:	. S	4 S	S.	3 SIT
BPS; BOOS WIP; WATE D : DIF		EQUIP FOOT	<u>2</u>		-						-				1			3 CSS	-	3 58				33	3	12	16	5
FLUME, TUBE, KS.		IA W (CSS)	.[-]	نۍ -	ຶ	15	15	=	9		138	5			1	1	10	25 48		52		23	П	25 49	-	1		-
PF; PARSHALL FLUM V ; VENTURI TUBE, WW; WATERWORKS.	_	NUMBER OF MONITORING DATA NTRAL SUPERVISORY SYSTEM				4	e	3		75	9	3	-	· [77	-	4		2	7	9	-	-	က	S.	  -	4	3	3
	×	R OF MONITORI		2	2		2	4	6	7	9	8	•			7	ഹ	9	ı,	4	-	(C)	4	ص	-	4	9	c-,
FLOAT TYPE, ORIFICE PLATE, PROPELLAR TYPE.		NUMBE RV CENTRAL			1	2	3	en t	-		9		-	11	-	4.	1 4	2	\\\-\\-\\-\\-\\-\\-\\-\\-\\-\\-\\-\\\-\\\-\\\-\\\-\\\-\\\\			1	E.	1 0		4	3	6
F : FLOAT 0 : ORIFI P : PROPE			WAT	1 :		4	2	T E		4 2	- 2	3	-	10	ľ	216		LS.			-		3.	C)		-	3.4	,
		ID NUMBER	LOW CONTROL	¥PF 1	2	1 30	დ <del>-</del>	₽.	٦	7 BB	- G	1 B		4 t	ŀ	2 -	C)	<u>8</u>	4	1 : .:.	AN 1 RI	∞0	AN 4 AV	m ~ -	-	AN: 4 E	AN 6 AV	AN: 3 RI
BOURDON TUBE, BUTTERFLY VALVE, CONE VALVE.		EQUIPMENT AND NUMBER TO BE INSTALLED	PRESS FLOW CO	¥PF AN	₹	77	3 AN	B 3 AN	8 . 9 AV	1 4	B : 6 AN	2	24	7 7		8 A AN	B 4 AN	B 6	A AN	· [	2	7	8 8	B 3 AN FB 3 VAN		B :: 4	8	
BOURDON TUI		DOE EO	LEVEL P	1		0 1 8	2	٦ -			-	D T	1	11	7		1		-	1		D 1	 	£A₽ 1			Q.	
PE, BU;	5	T (RITU)		*					7							NoIT	ERVO] R		alu		TINCT FOX	NIC					İ	O.T.
ANNUBAR, AIR PURGE TYPE, ALTITIDE VALVE.		MINAL UNI	LOCATION	NORTH OROPOUCHE	*	ACE	. S.	GUANAPO JUNCTION	NCMPARA DINCTION	ARIMA OLD RESERVOIR	DINCTION	Ž.		UA WW		FLOW CONTROL STATION	ST AUGUSTINE RESERVOIR	A BPS	GT TOCKED DECEMBER	**	WH ER IN	MI, HOPE RESERVOIR	MALICK RESERVOIR	ORRO WW	111	RIVER	PICTON NO. 3 RESERVOIR	daurad aat i lordaa 76
8 4 4 3 4 4		REMOTE TERMINAL UNIT			MA SITION 2		4 ARIPO BPS	5 GUANAPO	C DEMEDAD		A MAINING DINCTION	9 AROUCA WW	CALIDA SM	1 TACARIGUA WW			·	14 TUNAPUNA BPS					19 MALICK	ZO EL SOCORRO	21 LAVENTILLE	- <b>j.</b>	23 PICTON	10/10/10
NOTE:	L	Ωť	€.				<u></u>	<u> </u> "	Ľ			71	٤	3 <b> </b> =	1	27	==	T		3 2	-	17	F	2	<u> "</u>	167	101	Ŀ

LIST OF MONITORING AND CONTROL EQUIPMENT TO BE INSTALLED FOR CENTRAL SUPERVISORY SYSTEM (2) Table 8

IPHERALS), UIPMENT,		EQUIPMENT TO BE CONTROLLED	JMP VALVE PLACE NO.   PLACE	<b>₹</b>		I 2 CARONI	2.2	T CSS	2 583		2 CSS	2 033		3	3 88	- 83	_  _  _		=	<b>*</b>	-	2 (SS	-~	₩.	~>	2 88	_	125	III CSS III CSS
EXISTINGS (REPLACEMENT PERIPHERALS) INSTALLATION OF CONTROL EQUIPMENT.			_ [5	•		S CARONI									-			-		<u>~</u>	_			5 CSS		9 8		31	S CARONI 25 CSS
SS (REPLAC		ra (css)	PUMP ALARMIOTAL STATUS	18		59 77	<b>Б</b>	-	-	1.0	9	9	-	σ.	8	3	2	2		25 49	0	9	_	41 64	<b>.</b>	43 58	6	266 786	
EXISTING INSTALL		R OF MONITORING DATA	VALVE PUMP V STATUSSTATUS		4.	.212.	2	-	2	-i		2	2	3	3	1			7	4 (a)	1	2	-1	4 10	3	2 12		125 7 52.	
***	PHASEII	NOMBER OF MONTTORING DATA NTRAL SUPERVISORY SYSTEM	FLOW RATE		4	2	C	1	2	7	2	2	2	<u>س</u>	3	1			7	ω)		2	1	4	3	2	_	T-794	
(MM), BE USED,	P H	병	ER WATER EL PRESS	2 8	4	7	2 2	1	2		2	2	1 2	e .	3	1		1	_	က က	1	1	-	8	3	3	က	38 131	
HW : HIGH WAY, (300); PIPE DIAMETER (MM). "*" : EXISTINGS TO BE USED.			CONTROL WATER VALVE LEVEL	2.4	:	7	7	1:1	J: 2	7	1	1:2	: 2	7	J : 3	0:1	V: 1	0:1	. I	> D	0:1	U : 2	0 : 1	#80 4	n: 3		_ :	136	0 V U V V V V V V V V V V V V V V V V V
1300); PIPE		AND NUMBER	FLOW CO!	5 KAN 7 KAV 2	¥AN 1 #BI	έV 2 #BU	KAN 2 #BU	KAN: 1 #BU	7	¥0 1 #BU	¥AN 2 BU	2 KAN: 2 #3U	2	3 #AN 3 8U	¥AN : 3 #BU	KAN: 1 #BU	ĭ		• • • •	KAN 6 YAV	#AN : 1 #8U	2	_	¥AN 3#8	KAN 3 #BU	KAN 1 #BU	FAN: 6	164	AN 1 BU FAN 145 FAV FO 2 FBU KP 3 #CV
N, TYPE,		EQUIPMENT AND NUMBER TO BE INSTALLED	2 3	安:	ထမ္		2 B	⊷4. 	7	1.8.1	¥8	¥B : 2 h		۳ چ	¥8 : 3	:		¥8 1	-	ය ලූ ප		¥8 2	1	B 2	¥8 : 3	B 2 KB 1		8 131	#8 111 #8 111
BOOSTER PUMPING STATION, WATER TREATMENT PLANT, DIFFERENTIAL PRESSURE TY			ACE METER	SITE D 2		د ال	CARON LYAP 2	TE :		SITE #D	SITE	SITE	SITE NF : 1	SITE	SITE	SITE	#D 1	SITE	SITE	SITE D	SITE	SITE	TF	CSS SITE	SITE	CSS SITE	· JA	88	SITE YAP 2 CSS D 13 CARONIFD 11
3; BOOSTER PUMPING STATIO P; WATER TREATMENT PLANT : DIFFERENTIAL PRESSURE		EQUIPMENT TO BE CONTROLLED	VALVE ICE NO. PLACE	4 SI	1 SITE	NI 2 CARON	7	1 SITE	2 SI	1 SI	I SI	2 ST	2 SI	1 8	3 SI	1 SI	_	I SI	1	co	1 S	2 S1	ī	CSS 1 CS	3 SI	1	_	113	41102
BPS; BOO WTP; WAT		<u></u>	AL PUMP NO.1 PLACE	en:	3	7 6 CARONI	6	3	9	2	2	9	7	7	6	3	2	3		49 3 CSS		9		64 5 CS	8	9 6 6	_	745 29	23.6
PARSKALL FLUME, ' VENTURI TUBE, WATERWORKS.		DATA TEN (CSS)	ALVE PUMP ALARMIOTAL TATUSSTATUS	19	8	2 59 77	5													<b>5</b>	_		_	41		49	_	58 249 74	
PF; PARSHALL FLUN V ; VENTURI TUBE, WW: WATERWORKS.	쁘		ALVE PUMP STATUSSTATUS	\$		2 12	2	1	- 2	ĭ	-	2		-	3	1		-	ĭ	**	-	2		4 10	3	212		113 5	<u> </u>
	A	SEPEN	PLOS N	7	T	7	2 3	1	2 2	1 2	7	2 2	_	en en	3	1 1	1	1	1 1	9	1	2 2	1 1	2	3	3 2	-	127 160	
FLOAT TYPE, ORIFICE PLATE, PROPELLAR TYPE.		8	WATER WATER LEVEL PRESS	2 6	1	2	2			1		_	1	en.	-		1			3	_				_	က	-	38	
F 0 0			NTROL ALVE	#8V 8U 4.2		¥BU 2	¥BU 2	3	3 na	<b>3</b>	 	80:2	BU: 2	<b>≅</b>	3	1 38	AV: 1	BU: 1	=	- 22 €	2	_ ⊠	BB: 1	8	BU: 3	S.		124	***
i. Lve.		EQUIPMENT AND NUMBER TO BE INSTALLED	CAUGE METER 1	S AN	AN.	**	¥AN 2	1 AN 1	2 AN 2	1.1 12.0	2 AN 2	2 AN : 2	2 AN : 2	3. AN 3.	3 AN 3	-	AN .	I AN: 1	I AN I	3 AN 5	NV I	2 AN 2	1 AN : 1	3 AN 3	3 AN : 3	1 AN 1 2 VV 1	AN: 6		11 AN 139 2 40 2 2 40 2 49F 2
BOURDON TUBE, BUTTERFLY VALVE, CONE VALVE	1	EQUIPME TO BE		1:	8		2 <b>8</b> 8 7		8	1 ¥8	g B		1 8 :	<u>8</u>	89	<b>-</b>	-	В:	2	ഇ ഇ ഇ	9	8	. B	e e	 B	ထမ္	د	38 127	മ്മയ
B. 30		<u></u> 令	LEVEL	9		%. 4¥.⊤	KAP.			<u>a</u>			и.				۵			g:							ćz.		# #affr
AN; ANNUBAR, AP; AIR PURGE TYPE, AV: AITITIDE VALVE	י טרנוומר נטרני	TERMINAL UNIT (RTU)	LOCATION	KNAGGS HILL	NATIONAL FLOOR MILL	TUMPUNA STORAGE LIFT	CARONI WTP	KELLY VILLAGE	SCALE YARD	LAS LOMAS WW	JERNINGHAM JUNCTION	CINGUANAS	CARLSEN FIELD WW	CARAPICHAIMA	WARDEN OFFICE	NGEN II	CALIFORNIA RESERVOIR		AVELLA	SAM FERNANDO BPS	MOSOUTTO CREEK	ST CLEMENT	, sx	45 MALGRETOUTE BPS	THER ROAD	47 : TC0 BPS	ET W	TOTAL	EQUIPMENT
NOTE: AN		REMOTE	. WO	25 KNA	26 NAT	27 73	28 CARC	٠ -	30 SCA		32 JER	·	34 CAR	35 CAR	36 · WAR	37 TRINGEN			40 MAR	41 SAN	42 MOS	43 ST	44 DAISY	45 MAL	46 870	47 100	48 NAVET WE		

Table 9 LIST OF MONITORING EQUIPMENT AND DATA UNDER LOCAL SUPERVISORY SYSTEM

		Bluege V	DHACE	11			PHASE I	PHASE	TI I
		PHASE I	PHASE				NUMBER OF	FLOW DATA	
		NUMBER OF	FLOW DATA			DAGII IMU		IN W'LY	
NO.	FACILITY	MONITORING	IN W LY		NO.	FACILITY	MONITORING	IN, ED	NUMBER
		FLOW DATA IN	IN' ED	NUMBER			FLOW DATA IN		
L		M'LY REPORT	METER	OF DATA			M'LY REPORT	METER	OF DATA
(NOR	TH CENTRAL)	1 * 1 * 1 * 1 * 1		 	(SOU	TH EAST)			
ï	LOANGO/NARANJO WW (300)	. 1	¥ 1	1	47	MALONEY WELLS (150) AMOCO TOURNEBRIDGE WELL(100)	2	¥ 2 ¥ 3	2
2	LOANGO INTAKE (100)	* 1	1	1	48	AMOCO TOURNEBRIDGE WELL (100)	3	¥ 3	3
3	LOPINOT INTAKE (100)	* 1	1	1	49	LGHARACARA SPRENG (1010)	. 1	¥ 1	1
···ǎ·	MT. D'OR INTAKE (100)	* 1	1	1	50	GUAYAGUAYARE WELL #1 (100)	1	¥ 1	1
\ <del>.</del>	ST. JOHN'S INTAKE (150)	* 1	i	1 1	51	GUAYAGUAYARE WELL #1 (100) MAYARO WELLS (100)	8	¥ 6	6
6	SURRY INTAKE (100)	* 1	i	1	52	MORICHAL SPRING (100)	1	¥ 1	1
ÿ-	WATERFALL RD. INTAKE (100)	* 1	ì	î	53	MAYO SPRINGS (100)	i	¥ 1	1
	SUB-TOTAL	6 7	$\begin{bmatrix} 1 \end{bmatrix}$ $\hat{7}$	Î	54	BICHE WATERWORKS (150)	ī	¥	1
AVOR		[ 0 ] /		· · · · · · · · · · · · · · · · · · ·		SUB-TOTAL	[0]16	[16] 16	16
	TH EAST)			1	/enii			120 3 20	
8.	BRASO SECO-PARTA INTAKE(100)			·····-	ائتتن	TH WEST)   CHATAM WATERWORKS (400)   PENAL WATERWORKS (250)	······	¥ 5	5
J., ¥.	CUMACA INTAKE (100)	* 1 * 1		ļ <del>.</del>	.5.7.	DENT MATERIANTO (400)		¥ 8	8
10	FOUR RD/TAMANA INTAKE (100)	*	<del>.</del>	<del>.</del>	.00	CIDIDIA (COODA) WW (200)	8	¥ 8	
11.	GRAND RIVIERE INTAKE (100)	<b>→</b> ]	<u>i</u>	<del>;</del>	5/	SIPARIA (COORA) WW (300)	······································	¥ 7	7
	MATELOT INTAKE (100)	* 1	<mark>]</mark>	<u>1</u>	58	GRANVILLE WAIERWORKS (ZUU)		<u>†</u>	i_[
13	MATURA INTAKE (100)	* 1	ļ <u>1</u>		<u>, 59</u> .	FYZABAD WWTERWORKS (150)	j	<u>`</u>	<u>Ş</u>
14	MATURA INTAKE (100) MONTEVIDEO INTAKE (100) MORNE LA CROIX INTAKE (100)	* 1	1	11	60	GRANVILLE WATERWORKS (200) FYZABAD WHTERWORKS (150) CARAPAL WATERWORKS (250)	<u>Z</u>	¥ 2	2
		• 1	1	1 1	61	LCAP OF VILLE WW (SIRI)	· •	1 <b>ž</b> 1 1	<u>1</u>
16	SARIBEA INTAKE (100)	• 1	1	1	62	POINT FORTIN WW (200)	3 1	¥ 3	3
17	SANS SOUCI WATERWORKS (100)	* 1	ì	1	63	CLARK ROAD WELLS (150)	1	¥ 1	1
18		* 1	1	1	64	TEXACO TO GUAYAGUARE (100)	* 1	1	1
19	LOS ARMADILLOS INTAKE (100)	* 1	1	1	65		• 1	1	1
. <del>.</del>	SUB-TOTAL		0 1 12			TRINTOC TO P'T FORTIN (100)	1	¥ 1	I
/NOT	TH WECT)	L 25 1 10		<del></del>		SUB-TOTAL	[ 2 ] 43	[41 ] 43	43
Suoi	SUB-TOTAL  (TH WEST)    BLANCHISSEUSE INTAKE (100)   CHAGUARAMAS WELLS (300)   DAMIER INTAKE (100)   DORRINGTON GARDEN WW (200)   FOUR RD. WATERWORKS (200)   LA CANOA INTAKE (100)	* 1	1	1	CTOR	AGO)			
20	DEWICHIOSEOSE INTURE (100)		····· <del>j</del>	·····	67		1	¥ 1	1
1.41	NUTED INTACE (100)			2		COURLAND WATERWORKS (400)	i	¥ 1	ī
1.22	DAMIER INJARE (100)		ļ <del>.</del>	·	69	HILLSBOROUGH WEST RV (300)	i	¥ 1	
[23	DURKINGION GARDEN NN (200)			<u>.</u>		GREEN HILL INTAKE (300)	1		
24	FOUR RD. WATERMURKS (200)	* 12 * 12 * 1 * 1 * 2	114	12		GUEER HILL INTANE (000)	1	¥ 1 ¥ 1 ¥ 1	
					71	KINGS BAY WATERWORKS (200)	<u>1</u>	<del>†</del>	
26	LA PASTORA RES. RD. (125) LA PASTORA WELLS (200) GUAICO TAMANA/L. C. IT(100) MON REPOS INTAKE (100)	* ]	<u>l</u>	.  <del> </del>	72	RICHMOND WATERWORKS (200)	ļ	<del> </del>	
27	LA PASTORA WELLS (200)	* 2		2	73	CRAIG HALL INTANE (15U)		<del>‡</del> ¦ ¥ 1	
28	LIGUALUH TAMANAZI, G. LICHBU	* 1	1 1	1	74	GOV'T FARM WELL #3 (150)	ļ	<u>.</u>	·····
29	MON REPOS INTAKE (100)	* 1	11	1		CHARLOTEVILLE INTAKE (100)	ļ	¥ 1	
30	PIPIOL INTAKE (100)	* Î	1	1 5	76	SPEYSIDE INTAKE (250)	* 1		ļ
31	RIVER ESTATE WW (200)	<b>*</b> 5	5	5	77	CASTARA INTAKE (50)	1	¥ 1	
32		+ 8	8	8	78	PARLATUVIER INTAKE (50)	• 1	1	1
33	TYRICO INTAKE (100)	* 1	1 1 5 8 1	8 1	79	L'ANSE FOURMI INTAKE (50)	+ 1	1	1
	ACONO WATERWORKS (300)	Ī	1 ¥ 1	1		BLOODY BAY INTAKE (50)	+ 1	1	1
35	LA PASTORA/CAPRIATA IT (125)	ì	¥ 1 ¥ 1	1	1	SUB-TOTAL	[ 4 ] 14	[10] 14	14
1.33	SUB-TOTAL	[ 14 ] 40	[2]40	40					
(por		1 1 10			1	TOTAL	[ 48 ] 154	[73 ] 154	154
1, 5,	LABIDITA INTAKE (100)	* 1	i	1 1	1	1	[		
1.33	LUMITIN INTANE (195)	····	∤······†··	· ·····	-				
1.3%	ARIPITA INTAKE (100) CASCADE INTAKE (125) DIBE INTAKE (100)	·····	i	· · · · · · · · · · · · · · · · · · ·	N/	OTE:			j
1.36	DIBE INTAKE (100) KING GEORGE V PK WELLS (300) MARAVAL WATERWORKS (675)	ļ <u></u>	ţ <del>,</del>		1 18		00); PIPE DIAME	TER (MM)	1
1.39	KING GEORGE V PK. WELLS (300)	* 3	ļ	3	1				OW METER
1.70.	PRINCE TILD HILLDING TOTAL	<del> </del>	ļ <u>.</u>	-  <u> </u>	Į.		'+"; NO INSTALLA	ነ የነበነ ነው። የተመሰመው	ON METER
41	MOKA WELLS (200)	* 2	2	. 2		RD.; ROAD,	IN EXISTING	J CAVILIII, OPDLACEVO	MT OF
42	PARAMIN WATERWORKS (200)	* 2	2	2			Y"; EXSISTINGS		ni ur
43		* 6	6	δ	]	L. C.; LAS CUEVAS,	PERIPHERAL	5),	]
	ST ANN'S WATERWORKS (200)	* 1	1	1	1	PK.; PARK, 1N'	ED; INSTALLED,		i
	ST CLAIR WELL (300)	* 1	1	1	1	P'T; POINT,			ļ
1	SUB-TOTAL	[ 10 ] 19	[ 0 ] 19	19	1	RV.; RIVER,			ļ
(941	r fernando/south central)	1 15 3 10		†- <del>-`</del>	1	GOV'T; GOVERNMENT,			İ
V.C.	FREEPORT WATERWORKS (300)	3	¥ 3	3	1	M'LY; MONTHLY,			
[.40		[ 0 ] 3	[3] 3	3	1	W'LY; WEEKLY,			Į
L_	SUB-TOTAL	ו ניטן	15 4 7 9	1	_	is Dr. 1 DEDUCTI			

Table 10 LIST OF WSSS HARDWARE

HARDWARE	QUANTITY	ROLEOF
COMPONENTS		COMPONENTS
[A] CENTRAL DATA PROCESSING SYSTEM (CDPS)		
(1) CENTRAL PROCESSING UNIT (CPU)	2	DATA PROCESSING, STORAGE AND RETRIEVAL
(2) FIXED DISK DRIVE	2	STORAGE OF OPERATING SYSTEM
(3) FLEXIBLE DISK DRIVE	2	DATA STORAGE
2-030-10-11-11-11-11-11-11-11-11-11-11-11-11	2 2	DATA STORAGE
(5) COMMUNICATION INTERFACE	2	CONTROL OF CPU AND DATA COMMUNICATION
(6) SERIAL INTERFACE	2	PERIPHERAL CONTROL
(7) SERIAL INPUT/OUTPUT INTERFACE	2	CONTROL OF GRAPHIC PANEL, PUMP REMOTE OPERATION & VALVE REMOTE PANELS
(8) CRT DISPLAY	2	DISPLAY OF GRAPHIC AND ALPHANUMERIC SYMBOLS
(9) HARD COPIER	1	CRT PICTURE COPY
(10) LINE PRINTER	2 2 2 2 1 1 1 1 2	DATA PRINTOUT OPERATION REPORT PRONTOUT CONTROL OF COMPUTER SYSTEM
(11) SERIAL PRINTER	1	OPERATION REPORT PRONTOUT
(12) SYSTEM CONSOLE	1	CONTROL OF COMPUTER SYSTEM
(13) GRAPHIC PANEL	1	DISPLAY OF WATER SUPPLY SYSTEM AND MONITORING DATA
(14) MODEM	2	MODULATION AND DEMODULATION OF SIGNAL
(15) UNINTERRUPTIBLE POWER SUPPLY	1	BACK-UP POWER SUPPLY FOR EQUIPMENT OF CSS BUILDING
IBI REMOTE TERMINAL UNIT (RTU)	<del> </del>	
! (1) INTERNAL CONTROLLER	48	INTERPRETATION BETWEEN CPU AND FIELD INSTRUMENTS
(2) SERIAL INPUT/OUTPUT INTERFACE	48	INPUT/OUTPUT CONTROL FOR MICROPROCESSOR
(3) PROCESS INPUT/OUTPUT INTERFACE	48	ANALOG AND DISCRETE DATA CONTROL
ICI DATA RADIO COMMUNICATION SYSTEM	<u></u>	
(CSS BUILDING)		
(1) UHF TRANCE IVER	2	DATA COMMUNICATION BETWEEN CSS BUILDING AND REPEATER STATION
(2) COMMUNICATION INTERFACE	2	CONTROL OF DATA COLLECTION
(REPEATER STATION)	<u> </u>	
(1) UHF REPEATER	2	COMMUNICATION RELAY FROM/TO VHF
(2) VHF REPEATER	2	COMMUNICATION RELAY FROM/TO UHF
(3) UNINTERRUPTIBLE POWER SUPPLY	1	BACK-UP POWER SUPPLY FOR EQUIPMENT OF REPEATER STATION
(RTU STATION)		
(1) VHF TRANSCEIVER	48	DATA COMMUNICATION BETWEEN RTU AND REPEATER STATION
(2) COMMUNICATION INTERFACE	48	CONTROL OF DATA TRANSMISSION
(3) UNINTERBUPTIBLE POWER SUPPLY	48	BACK-UP POWER SUPPLY FOR EQUIPMENT OF RTU STATION
TDT REGIONAL OFFICE	† <del></del>	
! (1) WORK STATION (CRT AND COMPUTER)	3	DATA INPUT, DISPLAY AND ANALYSES
(2) OPTICAL CHARACTER READER (OCR)	3	DATA ELECTRONICALLY INPUT INTO THE INDIVIDUAL COMPUTER
(3) HARD COPIER	3	CRT PICTURE COPY
. (o) ISHEP OUT ILL	<del></del>	Type Type Type Type Type Type Type Type

SUMMARY OF COST ESTIMATE FOR WATER SUPPLY SUPERVISORY SYSTEM Table 11

	NAME					PIAS										7 11 A O E	11				
	- OF	FORE	FOREIGN CURRENCY	Y (USS)		19	LOCAL CURRENCY	Ę-	() Globí V		TOTA!	FOREIG	FOREIGN CURRENCY	(\$50)	1	OT CIVIL	LOCAL CURRENCY (ITS)	(\$E) [2]	SUPPLY	!	TOTAL
Ē	AND	PRIMARY	PRIMARY INSTRUMENT FOULTHMENT -ATION	TOTAL	F-M/C-V E	BUILDING	INSTAL- ST LATION	E (1	TRANS- PORTATION	TOTAL (TTS)	(0S\$)	PRIMARY ID	INSTRUMENT T -ATION	TOTAL (USS)	F-M/C-V BU	BUTLDING I	INSTAL - SUE	SUB-TOTAL TH	TRANS- PORTATION	E E	(SS)
Ξ	SKS			<u>]</u>			1								1	-	1	+	- -	1	
<u> </u>	3				- ! !	- ·         	-t	1,		100	1.000	+:1:1:	٠ŀ	1 636.1				ナ	118.3	707 6	52.3
	***	494.2	-1	1,824.0	1, 438.4		775. 2	2, 213, 0	25.0	2, 186	7, 301. 3	P 1000	1, 505, 0	1, 2015, 1		:	214.7	·	16.631	9 250	2 174 0
	CONTROL VALVE	2, 156, 4	رب	5, 936, 2	1, 396, 5		2, 522, 9	3, 919, 4	204 0.00	4, 124. U	T	7.067	-	210.5		Τ		-	97	3	357
	LEVEL METER	32.5		312.0	-	1	132.6	132.6	26.5	1.59.1	45.0	o o		2 0				-		0 000	3 6
-	DRESSIBE CAUCE	1		556. 7	1		240.8	240.8	48.2	289. 0	634.7	1	- :	593.9	- • •			<u>-</u> -		ğ	900
	The state of the s		0 140 1	E 961		285.2	900	9 787 0	280 5	2 668 4	F 489 7		_	3, 486, 9	· ¦			_		. 7.8.3	3, 905
	CSS S CENTRAL EQUIT		2	5		2			0.00	0 201	0 366		-	317 3	-	;		-		191	333
	REGIONAL OFFICE		Z17. D	٠.,	!	1	200	2	0 1	2	2 1	<u> </u>				-			2 00		5P6
_	REPEATER STATION	;	219, 1	219.1				93. 1	18.6	111.7	5 CP7	1	÷	7.617				÷	0 1	100	1
_	סדו פדידוטא	1	11 839 0	1 11 872 0	;	9 219 5	5 028 6	-	1,005.7	8, 253, 8	13, 774, 1	;	9, 973, 3	9, 973, 3	1			⇉	246	5, USB. 4	71,11
	Or of Common of the			100				•	١٥ ،	7.	253 0	-	1	1	- ¦					 	_,
	SOUSIER PAS			.,			2 .00	2	2	7	2		6 076	6 016			c	UU	21.9	25.2	ď
'	SPARE PARTS	;	249.3	249.3	-	-	-	į	7.17	7.17	234. 3				+	Τ	-	†	1		
	SUB-TOTAL	2, 683.1	24, 556. 3	27, 239. 4	2, 834. 9	2,604.9 1	10, 882. 1	6, 321. 9	2, 197. 8	18, 519. 5	31, 596. 9	307.1	18, 136. 4	18, 443. 4	125.1	.:	7, 732.5 7	7,857.6 1.	. 567. 7	9, 425.3	20, 561.
								1	+			1	1		+	+	-	l	ļ.	-	
75	[SS1]		i : i : i : i : i : i : i : i : i : i :				1	+	+	! !		7.868	1 279 9 1	1.608.3	1.444.8	+	583. 5   2, 1	128.1	138.7	2, 264, 8	2,141.2
_	riok melen						П	T	†						-	-	Γ	~			
	SUB-TOTAL	1					1	-	-			328.4	1, 279, 9	1, 608.3	1, 444.6		683. 5 2	2, 128. 1	136.7	2, 264.8	2,141.
	TOTAL	2, 683, 1	24, 556. 3	27, 239, 4	2,834.9	2, 604. 9	10, 882, 1	16, 321. 9	2, 197. 6	18, 519. 5	31, 596. 9	635.4	19, 416. 3	20,051.7	1, 569. 7	<b></b>	8,416.0 9	9, 985. 7	1, 704.4	11, 690. 1	22, 802.
				-			T										-				
[2]	ENGINEERING SERVICES		1	3, 437.0	.1	 		-		2, 109.3	3, 933. 3			6, 311. 1				1	1	3, 809. 3	7, 207, 4
Į.	TOTAL OF 1TEMS [1] & [2]	2, 683. 1	24, 556. 3	3 30, 676. 4	2, 834. 9	2, 694. 9	10, 882. 1	16, 321. 9	2, 197. 6	20, 628. 7	35, 530. 2	635.4	19, 416.3	26, 362.8	1, 569. 7	<del></del> 	8, 416.0 3	9, 985. 7	1, 704. 4	15, 499. 4	30, 003.
8	TAX (VAT)		1	<u> </u>	1	1	i	1		22, 650. 5	5, 329, 5	`	1		1					19, 131. 2	4, 501.
三	CONTINGENCY			4, 601.5	1	 			1	3, 094. 3	5, 329, 5		1	3, 954. 4		<u> </u>	1	ŀ		2, 324. 9	4, 501.
<u>E</u>	ADMINISTRATION		<b></b>				1	1		755.0	177.7		!	1	1		1	-	1	537. 7	150.0
	GRAND-TOTAL	2, 583, 1	24, 556.	3 35, 277. 9	9 2,834.9	2, 604. 9	10, 882. 1	15, 321. 9	2, 197. 6	47, 128. b	46, 367. 0	635.4	19,416.3	30, 317. 2	1, 569. 7		8, 416.0	9, 985. 7	1, 704. 4	37, 593. 2	39, 162.
						,															

P ; PROPELLAR TYPE, PF; PARSHALL FLUME, V ; VENTURI TUBE, RD; ROAD,

RES; RESERVOIR,
IT : INTAKE,
WW : WATERWORKS,
OT : OFF-TAKE,

(300); PIPE DIAMETER (NM),
"\*"; EXISTINGS TO BE USED,
"¥"; EXISTINGS (REPLACEMENT PERIPHERALS),
"#"; INSTALLATION OF CONTROL EQUIPMENT,

NOTE: AN; ANNUBAR,
AP; AIR PURGE TYPE,
AV; ALTITUDE VALVE,
B; BOURDON TUBE,
BU; BUTTERFLY VALVE,
CV; CONE VALVE,
F; FLOAT TYPE,

AV; AVENUE, HW; HIGH WAY, SH; SHEET,

JCT; JUNCTION,
1C; INTERCONNECTION,
BPS; BOOSTER PUMPING STATION,

	FLOAT TYPE, SH; SHE ORIFICE PLATE, ST; STR			BPS; BC D : D1	OSTER P	UMPING TAL PRE	STATION SSURE T	, YPE.								
<u> </u>	ONTH TOE TEATE, ST, OTH	1,1,1,						PHA	SE I					011 V 514 TV	1 COM 144	0. DO
RTU NO. &	MANAGORINA DATUM	np.	EQUIP O BE IN			עמ	NUMBE Central			ING DA		e)	E	QUIPME CONTR		
LOCATION	MONITORING POINT		PRESS	FLOR	CONTROL	WATER	WATER	FLOW	VALVE	PUMP	ALARH	TOTAL	P		VA	
		METER			VALVE			RATE	STATUS	STATUS			NO.	PLACE		
1 NORTH	OROPOUCIE WW											5				
	RAW WATER	F		¥ PF				<u>1</u> .								
	CLEAR WATER RESERVOIR DISTRIBUTION (1050)	* D-2		ĀÑ		<u>ž</u>		<sub>1</sub>			·					
2 HOLLIS			<del></del>		ļ			<u> </u>				3	_			
L Mondie	IMPOUNDING RESERVOIR	F			I	1										
	RAW WATER (300)			AN	l			1								
	DISTRIBUTION (600)			AN				1				15				
3 GILL T	RAUE QUARE WATER TANK	D	-		-	<del></del> 1		<b> </b>					H			
	QUARE DISTRIBUTION (300)		¥ B	¥¯ν¯	<b></b>		i	1		† †						
	GILL TRACE OT (300)		B	ĀÑ	BU		i	1	1						1	SITE
	QUARE (1) OT (150)		В	AN	BU		1	1 1	1 1			ļ. <u>-</u>			1	SITE
	QUARE (2) OT (150)		B	AN	BÜ BÜ			1	$\frac{1}{1}$						1	SITE
4 ARIPO	TO SANGRE GRANDE OT (400) BPS		<u>B</u>	AN	DU	<del> </del>	ı	1				15	├	<del></del>	1	0116
A WILLO	ARIPO(NEW)RAW WATER (300)			¥ 0	<b>†</b>			i				L				
	AR1PO (OLD) RAW WATER (250)			AN	I	[		1	I	[ ]		[				
	FORT READ RESERVOIR (250)	Ď		AN	ļ	ļ <u>ļ</u>		1	ļ	ļ <b>ļ</b>		ļ		ļ	ļ	
	FORT READ RESERVOIR (300)	D		¥ V	BŪ -	<u>j</u>		1	+ <sub>7</sub> -	}			}			SITE
	ARIPO BPS (300) CUMOTO(1) OT (300)		<u>B</u> -	± - ¥ ĀÑ	<u>BU</u>			1	┼ <del>┆</del> ·			}			1	SITE
	CUMOTO(2) OT (300)		B	ÂÑ	i Bắ	<u> </u>	i	1	†						î	ŠITĒ
5 GUANAP	O JUNCTION											11				
	GUANAPO RAW WATER (300)			AN	L			1	ļ		. <b>.</b>					
· ·	GUANAPO RESERVOIR (300)	D			Bū	<u>1</u>		;			<b></b>	}			1	ŜĪTĒ
	GUANAPO WW DIST. (300) DOUBLE BRIDGE OT (150)		<u>B</u> -	AN AN	BŲ BŲ	<del> </del>	<u>1</u>	1	├		- <b></b> -	<b></b>				ŠÍTÉ.
	GUANAPO JUNCTION OT (300)		B	AN AN	BŪ		ī	î	† î ·		<b></b>				ī	ŠITĒ ŠITĒ
6 DEMERA	RA JUNCTION				<b></b>							6			Γ-	
	DEMERARA JCT OT (300)	!	В	AN	<u>BU</u>	ļ	1	1 1	ļ <del>ļ</del> .							SITE
2 10181	TUMPUNA JCT OT (300) OLD RESERVOIR		В	AN	BU	<b> </b>	1	1	1			17	<b> </b>		-	SITE
/ Antaa	ARIMA NEW RESERVOIR (375)	F		AN		1		1	<del>                                     </del>			1	-		<del> </del>	l
	ARIMA OLD RESERVOIR (200)	Ď		ĀN	t	î	† :	1	† ·	11	- <del>-</del>			· • • • • • • • • • • • • • • • • • • •	f	
1	TO MORENO ST OT (150)		B.	AÑ	₿Ū	I	ï	[	]					[	1	SITE
1	QUESNEL ST OT (300)	[	В_	AN	BŲ	<b> </b>	1	1	ļ <u>1</u> .					<b></b> -	1.1	SITE
	OMERA JCT OT (150)		B	AN AN	BÛ BÛ		<del>1</del>	1	<del> </del> <del>}</del> ⋅		<b></b>				1	SITE
	ARIMA BPS (300) ARIMA WELL (200)		<u>»</u> -	AN	Du		├ <del>1</del>		╁ <del>!</del> .	<del> </del> -				<u></u> -	<del> </del> -⁺-	0111
	ARIMA B/PUMPS	<b> </b>	†	† <del>***</del>	t	1	t	† <i>*</i>	†	†		<u> </u>				<u> </u>
8 MAUSIC	A JUNCTION											18				
	OLTON RD OT (150)	<b> </b>	B-	AN	BU		ļ <del>ļ</del>		ļ <del>1</del> -	ļ		<u></u>		ļ·	1	SITE
	BOYS LANE OT (200) MAUSICA JCT OT (150)	<b> </b>	<u>B</u> -	AN	BÚ BÚ		<del>1</del>					}	<b>}</b>	·	- <u> </u> -	
1	CARAPO OT (300)	†	B-	AN	BU	†	† <u>†</u>	† î	† <del>i</del> :	†				<del> </del>		SITE
	MAUSICA OT (300)	†	E B	T AN	∏ BŪ	İ	İ i	İ	<u> </u>	t		[			1	SITE
	MALONEY JCT OT (300)		В	AN			1	1	1				L	ļ <u>.</u>	1	SITE
9 AROUCA		_	L	ļ	ļ	ļ .			ļ	ļ		9	<b> </b>	<u> </u>	<del> </del>	
1	CLEAR WATER TANK DISTRIBUTION (200)	<u>D</u> _	<del> </del>	ĀÑ	BŪ	<u>ֈ</u>	<del> </del>		+	<del> </del>	L				1-1-	ŠĨŦĒ
	BORNE AREA #1 OT (150)	†		AN AN	BÜ		i i	<u>1</u>	† †	t			<del></del>	t	1	SITE
	LOPINOT IC OT (300)		B	AN	BŪ	<u> </u>	ĺ	$\bar{1}$	$-\bar{1}$						1	SITE
to caura												5	ļ			
	RAW WATER (400)			ŸV				1	<del> </del> :	<del> </del>						
	CLEAR WATER TANK DISTRIBUTION (400)	Ď	<u>B</u> -	ĀÑ	- BŪ	∮ <u>1</u>		<u>ī</u>	├ <sub>ī</sub>	+		}	}	}	-1-	ŠĪTĒ
11 TACARI			<u>1</u>	1 11	50	<del>                                     </del>	<del> </del>	<del> </del>	<del> </del>	<del> </del>		12	1-	<del> </del>	†	, VIII
[	CLEAR WATER RESERVOIR	¥ D	1	1	1	1	İ		1						1	
1	DISTRIBUTION(1) (300)		B	ĀÑ	BŪ	I	Į į	1.1	1 1	Ţ			ļ	ļ	[1	SITE
	DISTRIBUTION(2) (400)		B B	I I AN	E E BÛ	ļ	ļļ	ļ <u>ļ</u>	Ţ <u>į</u>	<b></b> -					$\downarrow \frac{1}{4}$	SITE
	TO CAURA BPS OT (225) PASEA RD OT (175)		$-\frac{B}{B}$	ĀÑ			<u>l</u>	1	11	ļ·		· <del> </del>	}- <i>-</i>		+ -¹-	SITE
L	LUOEV IN AL (T13)	<u> </u>	<u>1</u>	I all	_ 7ı	L	<u> </u>	<u> </u>	<u> </u>	1	L		<u> </u>	<b></b>	Ь	

P ; PROPELLAR TYPE,
PF; PARSHALL FLUME,
V ; VENTURI TUBE,
RD; ROAD,
AV; AVENUE,
HW; HIGH WAY,
SH; SHEET,
BPS; BOOSTER PUMPING STATION,
DESCRIPTION OF THE PROPERTY OF THE PROP NOTE: AN; ANNUBAR,
AP: AIR PURGE TYPE,
AV; ALTITUDE VALVE,
B; BOURDON TUBE,
BU; BUTTERFLY VALVE,
CV; CONE VALVE,
F; FLOAT TYPE,

(300); PIPE DIAMETER (MM).

"\*"; EXISTINGS TO BE USED,

"¥"; EXISTINGS (REPLACEMENT PERIPHERALS),

"#": INSTALLATION OF CONTROL EQUIPMENT.

F:	FLOAT TYPE, SH; SHE	ET,		BPS; BO	OSTER P	UMPING :	STATION	VDF								
<u>0</u> _i	ORIFICE PLATE, ST; STR	EEI,	·· · · ·	<u>וע ; ע</u>	r r circui	IAL PRO		PILA	S E I							
RTU NO.&			EQUIP				NUMBE	R OF 1	ONITOR	ING DAT	ΓA		E	QUIPME		
LOCATION	MONITORING POINT		O BE IN	STALLED	o o ump o 1	BY	CENTRAL	SUPER	VISORY	SYSTE	(CS:	S)	i Di	CONTR		LVE
}		LEVEL	PRESS	FLOW METER	CONTROL	WATER	WATER	PATE	MALVE STATUS	PUMP	LAIM	IOIAL		PLACE		
12 11 00 (	CONTROL STATION	METER	GAUGE	METER	TRETE	DUTEL	THEOG	101115	Janes			11	11.01		1	***
IT LPOM	PIARCO JCT OT (300)		В	AN	BU		1	1	1						_1_	SITE
	BY-PASS OT (300)		В	AN	BŪ		1	1	1 1							SITE
	FLOW CONTROL STATION (800)		B·2	¥Υ	# CV-2	<u> </u>	2	1	2			10			2	SITE
13 ST AUG	GUSTINE RESERVOIR	<u>-</u> -		AN	AV	-						10_				
	RESERVOIR (750) ST JOHN RD OT (300)	F	B	AN AN	<u>vī</u> .		<u>i</u>	Î	+				[]		[]	
1	TO TUNAPUNA OT (150)		<u>B</u>	AN			i	1	† - <u></u> :	1						
	RABIR ST OT (200)		B	AN		I	i		I :					<del>-</del>	L	ļ l
	RIVERSIDE RD OT (100)		В	AN	ļ		1	1	<u> </u>							
14 TUNAP				1	BU		1	1	<del>  1</del>			48		<u> </u>	1	CSS
	TUNAPUNA (1) (150)	ļ ·	<u>B</u> -	<u>AN</u> AN	BŪ BŪ				+ <del> </del> 1		<b></b>		'		1	ČŠŠ
	TUNAPUNA (2) (200) TUNAPUNA (3) (525)	<b>-</b>	<u>B</u> -	<u>AN</u>	50		† †	tî	† <del>-</del> -	+					†	, ,
	PASEA ST OT (100)		<del>B</del> -	AN	BŪ	† <b></b>	† <u>î</u>	† ī	1 1							SITE
	TUNAPUNA RIVER (1) (300)		В	AN	BÜ	I	1	1 1	1				L		1	SITE
	TUNAPUNA RIVER (2) (525)	Ţ	B	AN	BŪ	ļ	1	1 1	ļ <u> i</u>	ļ <u>,</u> ,		ļ - <b></b>		- ēēē	- <sup>1</sup> -	SITE
	TUNAPUNA B/PUMPS	<u></u>		ļ	<del> </del>	<u> </u>	ļ	<del> </del>		6	25	15	1	CSS	├──	
[15 ST JO	SEPH RESERVOIR	<u>-</u>		<u> </u>	<b></b>	<del>- 1</del>	<del></del>	<del> </del>	+			10	1	<del> </del> -	-	<u> </u>
	RESERVOIR TO ST JOSEPH OT (225)	F_	<u>R</u> -	<u>A</u> N	BÜ	╁ <sup>±</sup>		†i	†i	†				<b>-</b>	1	SITE
	TO RIDER MAIN OT (200)	ł	B- B- B- B-	AN	BŪ	† <b>-</b>	†	11	†i	†			[ ]	<u> </u>	1	SITE
	MENDEZ STEEL SH. OT (200)	<del> </del>	<u>B</u> -	AN	BŪ	† ·	ī	111	11					[	1	SITE
	MATERNITY HP. OT (100)	1	- B	AN	BŪ	I		[ <u> </u>	1	]			ļ	ļ	_1_1	SITE
1	ST JOSEPH(1) (175)		I	AN	ļ	ļ <u>-</u>	<b>_</b>	1 1	1	ļ		ļ	ļ		<b>-</b>	
	ST JOSEPH(2) (300)	<u> </u>	<u> </u>	AN	<u> </u>	ļ	ļ	<u>                                     </u>		ļ		41		<del></del>	<del> </del>	
16 VALSA	YN RW	ļ	ļ	¥Υ	<b> </b>	<del> </del>	<del> </del>	١.,		<del> </del>		41	╁		†	
1	RAW WATER (750)	ΨĪ		1 - Y -	<del> </del>	+ <sub>ī</sub>	<del> </del>	} <del>-</del>	<b>†</b>	╅╌╌╸		}		}	† <del></del>	
	CLEAR WATER RESERVOIR DISTRIBUTION (750)	<b>┼</b> ┸╌╏╌	¥ B	ΨĪ	† <sub>BŪ</sub>	† <del>*</del>	11	† ī	†i	† <i></i> -				ļ	1	SITE
1	BOOSTER SUCTION (450)	† <b>-</b>	¥-B-	¥ AN	† = <del>-</del> -	t	†î	† ī	1	† - <del></del> -					$I^{-}$	
	BOOSTER DELIVERY (450)	†	¥ B	AN	BŪ		Ī ī	1		I			ļ.,.		ĮΙ	CSS ]
[	VALSAYN B/PUMPS						<u> </u>	<u> </u>		6	25	3	3	CSS	₩	<del> </del>
17 URIAH	BUTLER HW JUNCTION	ļ	<del> </del>	1	DIA.	<u> </u>	<del>  ,</del>	┼╌	1				-	-	1	SITE
- Very 1	STAG/NESTL OT (300)	<del> </del>	В	AN	BU	<del> </del>	1	<del>                                     </del>	+	<del> </del> -	<del> </del>	23	┼	<del> </del> -	+	OILL
18 MT. H	OPE RESERVOIR RESERVOIR (600)	D		AN	AV	1		<del>                                     </del>	<del>  -</del>	<del> </del>			1		<del></del>	<b>—</b>
	CARIB(1) OT (150)	╂ <b>╩-</b>	† <u>B</u> -	AÑ	† <u>B</u> Ú	† <del>-</del>	†ī	† î	†ī	† ·			[ ]		$I_{1}$	SITE
	CARIB (2) OT (200)	† <i></i> -	BB	ĀÑ	80	1	11	1 1	1	I		[ ] ]	[		1	SITE
	MT. HOPE OT (300)	1	T		I	I		I	1	ļ	ļ				<del>↓</del>	S. Comp
	GORDON ST (1) OT (200)	Į	B.	AN				1	+	<b>+</b>			·}		+ - <u>1</u> -	SITE
Į	GORDON ST (2) OT (200)	<b>↓</b> -	$\begin{bmatrix} & & & & \\ & & & & \end{bmatrix}$	AN					<del>1</del>	<b>+</b> • ·			أ	}		SITE
	GORDON ST (3) OT (300)	<del> </del>	B-	AN				1	++	+	<del> </del>		· <b> </b>			
	BROOM ST OT (200) TO SANTA CRUZ OT (250)	<del></del>	B		FI BU	<b>† -</b>	†î	11	† î	+	†	ļ	ţ			
19 MALIC	K RESERVOIR	<del>}</del>	<del> </del> -		1-2	1						11				
1 mm10	RESERVOIR (750)	D	1	AN	AV	1 1	T	11		Ţ	1	ļ	.	ļ	<del> </del>	
	TO BARATARIA OT (300)	I	B	AN			11	1 1	·		ļ	ļ	.			
	SIXTH Av. OT (300)	J	$\frac{B}{a}$	AN AN			ļ <u>1</u>	ļ ļ			<del> </del>		∤		$\frac{1}{1}$	SITE
	TO LADY YOUNG AV. OT (450	4	В	AN	BŪ	+	<del>                                     </del>	<del>                                     </del>	<del>                                     </del>	+	<del> </del>	49	+-	<del> </del>	+-	311E
20 EL S0	CORRO WW RAW WATER (750)	<u> </u>	<del> </del> -	¥V	+	┧	<b> </b>	+ 1	+-	1	<del> </del> -	13	+	<del> </del>	+	1
1	CLEAR WATER RESERVOIR	¥ ĀP	†	+	<b>!</b>	†i	†	† <del>-</del>	†	†	t	[	1	[]	1-	[
1	BOOSTER SUCTION (900)	†	¥ B	<b>1</b>	İ				1	I	I	[ ]			1-	. [
	BOOSTER DELIVERY (600)	I	¥ B	¥ AÑ			1 1	11	1 - 1	1	<b>.</b>	ļ			1-1	CSS
[ .	DISTRIBUTION (400)	1		¥ AN	BU		ļ ļ	1 !	H 1	4	<del> </del>	. <del> </del>	-}	· <del> </del>	1-1	
	EL SOCORRO RD OT (150)	<b>1.</b>	1 B	AN			ļ <del>ļ</del>	ļ ļ	+	+	<del> </del>				$\frac{1}{1}$	
	DON MIGUEL RD OT (150)	<b>+</b>	- B	AN AN			+	+4	<u>1</u>		<del> </del>	+	╂~	+	+-	
	ELEVENTH ST OT (150) EL SOCORRO B/PUMPS	t	+ <u>p</u> -	+40	+ <u>p</u> n	t	+ <del>*</del>	+	+	+6	25	t	<del>-</del>	ĈŜ	† - <b>'</b> -	20.2
21 LAVE		1	+	+	<del>                                     </del>	1		†			<u> </u>	3	_			1
ET WAR	TO LAVENTILLE OT (300)	1	В	AN	BU		1	1	1				$\perp$		1	SITE
22 BLAC	K RIVER			Ĭ	I			L				12	<u></u>		$\perp$	
,						7.67	_									

(300); PIPE DIAMETER (NM). P; PROPELLAR TYPE. RES: RESERVOIR, NOTE: AN; ANNUBAR, "\*"; EXISTINGS TO BE USED,
"Y"; EXISTINGS (REPLACEMENT PERIPHERALS), IT : INTAKE. PF; PARSHALL FLUME, AP: AIR PURGE TYPE, WW : WATERWORKS, AV; ALTITUDE VALVE, V ; VENTURI TUBE, OT ; OFF-TAKE, "#": INSTALLATION OF CONTROL EQUIPMENT. RD: ROAD, B : BOURDON TUBE, JCT; JUNCTION, BU: BUTTERFLY VALVE, Av; AVENUE,

IC ; INTERCONNECTION, CY: CONE VALVE. HW: HIGH WAY, BPS; BOOSTER PUMPING STATION, SH: SHEET. FLOAT TYPE. ; DIFFERENTIAL PRESSURE TYPE ORIFICE PLATE, ST: STREET. PHASE I FOULDMENT TO BE NUMBER OF MONITORING DATA ECUIPMENT RTU NO. & CONTROLLED TO BE INSTALLED BY CENTRAL SUPERVISORY SYSTEM (CSS) LOCATION MONITORING POINT FLOW CONTROL WATER | WATER | FLOW NALVE | PUMP ALARMTOTAL PUMP VALVE LEVEL PRESS RATE STATUSSTATUS VALVE LEVEL PRESS NO. PLAC NO. PLACE METER GAUGE METER BLACK RIVER (1) OT (300)
BLACK RIVER (2) OT (450)
BLACK RIVER (3) OT (525)
TO LADY YOUNG RD OT (300) 1 SITE B AN BU SITE B ĀÑ ΒŪ SITE B ĀÑ ΒŪ SITE ÄÑ ΒŪ B 16 23 PICTON NO. 3 RESERVOIR A۷ PICTON #1 RESERVOIR (400) . D AN PICTON #2 RESERVOIR (750) \* D.2 PICTON #3 RESERVOIR (900) \* D ĀV-2 ÄÑ AV BU ĀN SITE  $\bar{B}$ MASALLAH ST OT (100) ΑÑ PRIZAR LANDS ST OT (100) В ΛN RU SITE KERR RD OT (100) BÜ Ē ΑN ġ 24 SERVOL LIFE CENTER SITE BEETHAM DUMP OT (100) BU ٨N SERVOL LIFE C. OT (100) TO LAVENTILLE OT (525) SITE ₿Ū В ΑN В ĀN ΒŪ SITE 19 25 KNAGGS HILL + AV-2 AN RESERVOIR (525) \* D·2 SITE TO BELMONT OT (300) TO CASCADE OT (600) B ΒŪ ĀÑ SITE BU В AN SITE RII TO ST CLAIR OT (350) Β̈ ĀÑ ŜĨŦĒ 1 WESTERN MAIN ROAD (525) Ē. ΑN ₽Ū FROM SAVANNAH WELLS (300) B - --BARRACK (750) B ĀÑ 3 26 NATIONAL FLOUR MILL SITE ΒÜ 1 В ΑN NFM OT (100) PORT AUTHORITY (300) POST OFFICE (300) . . - -NATIONAL STADIUM (300) 77 TUMPUNA STORAGE LIFT PS ARENA IMPOUNDING RES. TUMPUNA WEIR 2 ¥ V.2 TOZEROM RESERVOIR (1200) RIVER DISCH. VALVE (1200) TUMPUNA S. L. /PUMPS CARONI ¥ BU-2 2 2 12 59 6 CARON 9 28 CARONI WTP ĀP RAW WATER ¥ PF \_ 1 CLEAR WATER RESERVOIR ¥ AP ¥ BU ¥ BU CARONI • <u>B</u> AN CARONI NORTH (900) 1 CARONI B ĀÑ CARONI SOUTH (1200) 29 KELLY VILLAGE . 3 SITE KELLY VILLAGE OT (300) 1 В AN BU 6 SCALE YARD SITE BU SCALE YARD OT (300) R AN ΒŪ SITE ĀÑ HINGKING RD OT (300) В 5 31 LAS LOMAS WW RAW WATER (600) ¥ 0 \_1 CLEAR WATER RESERVOIR D ΨĒ Ψ̈́V̄ SITE ΒŪ DISTRIBUTION (600) 32 JERNINGHAM JUNCTION TO LAS LOMAS OT (600) JERNINGHAM JCT OT (300) SITE ĀÑ ΒŪ Ē Ĝ 33 CHAGHANAS CHAGUANAS OT (300) AN SITE ΒŪ LANGE PARK OT (300) AN 04 CARLSEN FIELD WW CLEAR WATER RESERVOIR F DISTRIBUTION(1) (200) DISTRIBUTION(2) (250) 1 SITE B ₿Ū ΒŪ 1 SITE ĀÑ 7 CARAPICHA IMA CARAPICHAIMA OT (200) TO CARLSEN FIELD OT (300) 1 SITE BU AN B B ĀÑ ÃÑ TO FREEPORT WW OT (300) 36 WARDEN OFFICE

Table 12 LIST OF MONITORING AND CONTROL EQUIPMENT IN PHASE I BY CENTRAL SUPERVISORY SYSTEM (4)

NOTE: AN; ANNUBAR,
AP; A1R PURGE TYPE,
AV; ALTITUDE VALVE,
B; BOURDON TUBE,
BU; BUTTERFLY VALVE,
CV; CONE VALVE,
F; FLOAT TYPE,
O; ORIFICE PLATE, P; PROPELLAR TYPE, PF; PARSHALL FLUME, V; VENTURI TUBE, RD; ROAD, AV; AVENUE, HIGH WAY, SH; SHEET, ST: STREET. (300); PIPE DIAMETER (MM),
"\*"; EXISTINGS TO BE USED,
"Y"; EXISTINGS (REPLACEMENT PERIPHERALS),
"#"; INSTALLATION OF CONTROL EQUIPMENT, RES; RESERVOIR, RES; RESERVOIR,
IT; INTAKE,
WW; WATERWORKS,
OT; OFF-TAKE,
JCT; JUNCTION,
IC; INTERCONNECTION,
BPS; BOOSTER PUMPING STATION,
D; DIFFERENTIAL PRESSURE TYPE.

0;	ORIFICE PLATE, ST; STR	EET,		D ; DI	FFERENT	IAL PRE	ssure t									
			- BALLY B	Lancia				PHA			ጥል		E	QUIPME	UT T	n DE
RTU NO. &	MONTMODERS DOLLAR	net.	EQUIP			บก	NUMBE CENTRAL	K Už E	101 ING	ING DA	HA W /re	e)	L	ÇUIPAR. CONTR		
LOCATION	MONITORING POINT	I Dire	U Bt IN	STALLED	househol	DI	WATER	SUPER	MIDURI Mai de	91910	AT A DE	TOTAL	D	UMP UMP		LVE
		LEVEL	PRESS	METER	UUNTKUL VALUE	LEVEL		DATE	TALTE CTATIS	PUMI CTATIC	HLAM	IOIAL	NU.	PLACE		
	HADDEN OFFICE OF (200)	METER	սոսեւ		BU	LCACL	1	MAIC	1	DIVIOS			IIO.	LPUOT		SITE
	WARDEN OFFICE OT (300)		B B	AN AN	BU .		<u>†</u> :		1							SITÉ
	COUVA LANE OT (300) POINT LISAS OT (600)		<mark>B</mark>	AN	BÜ .		<del>1</del>	├ <b>-</b>								SITE
37 TRINGE				All	Ďθ		<del>-</del>	<del>-</del>			<del></del>	3				Otti
a) ikinge	TRINGEN II OT (300)		В	AN	BU		1	<u>-</u>	1						1	SITE
20 CALTED	RNIA RESERVOIR		<u> </u>	- AI	- 00	<b></b>	<del></del>	<del> </del> -				2	┢		<u> </u>	GIID
DO CHETEO	RESERVOIR (900)	Ď		AN	AV	1	<del> </del>	1				<del></del> -	_			
39 TCL	MEGENAGIN (200)	ν		an			<del></del> -			<del>                                     </del>		3				
03 10E	TCL OT (300)		В	AN	BU		1	1	1						1	SITE
40 MARAVE				1=1	- 20			<del> </del>		ļ		3				
ສບ ຄວນວານ	MARAVELLA OT (300)		В	AN	BU		1	1	1	1	1				1	SITE
41 SAN FE								<del></del>		1		49			-	
Din th	SAN F' DO RESERVOIR (750)	¥ D		AN	۸V	ī	İ	1								
		¥D	<b></b> -	ĀÑ		1	T	1	T	1	T		[			
	NAPARIMA RESERVOIR	¥D				1	T	T								
	BOOSTER SUCTION (900)		¥Β	¥ AN		I	[				I					
	BOOSTER DELIVERY (900)	[	¥ B	Ι	∗ BU		[	I	1			L			1	CSS
	ROUND ABOUT(1) OT (300)	[[	В	AN	BŪ	1		1	1	ļ	ļ	L		ļ I		SITE
	ROUND ABOUT (2) OT (525)		- B B	AN	BU	1	1	1 1 .	1	L	ļ. <sub></sub> -	ļ		L	1	SITE
	FIRE BRIGADE OT (375)	[ ]	В	AN	BÚ	1	1 1	1.	1	l	L		l		_1_	SITE
	SAN F' DO B/PUMPS						<u></u>			6	25	<u> </u>	3	CSS		
42 MOSQUI	TO CREEK			L			L					3	<u> </u>	<u> </u>		
	TO MOSQUITO CR. OT (600)		В	AN	80		1	1	1	<u> </u>	L		<u> </u>		1	SITE
43 ST CLE							<u> </u>	L			ļ	δ		ļ		OTTE
	ST CLEMENT (1) OT (200)	L	В	AN	BU		<u>1</u>	1 1.	1	↓	ļ					SITE
	ST CLEMENT (2) OT (250)	L	В	AN	BÜ	ļ	1	1	1		ļ	ļ <u>.</u>		ļ	1	SITE
44 DAISY		ļ. <u></u>		ļ			<del>.</del>		١.		├	3	-	<b> </b>	•	SITE
	DAISY OT (400)		В	AN	BU		1	1	1			64				SIIC
45 MALGRE		l		1, 11		ļ	ļ	<u> </u>			<u> </u>	04			<u> </u>	
	BOOSTER SUCTION (900)		¥ B	¥_Y_		<b>-</b>		11-							-,-	CSS
	BOOSTER DELIVERY (900)		¥ B		BU BU					╁	<i>-</i>			<del> </del>	<u>1</u> -	SITE
	BUEN INTENTO OT (300) TO PRINCESS TOWN OT (300)		B	AN	BÜ				<u>1</u>		<del> </del>					SITE
			B B	AN	BŪ		1 1 ·	<del>-</del> <del>-</del>		<del> </del>	<b>-</b>				1	SITE
	TO MALGRETCUTE OT (300)		<del>D</del> -	1 W	<u>p</u> n		<del>-</del>	<del>1</del> -	} ± ·	10	41			<b>CSS</b>	- *-	ភពក
4e proveige	MALGRETOUTE B/PUMPS	<del> </del>	ļ	<del> </del>				<del> </del> -		10	-31	9	<u>-</u> -	033		_
46 BROTIE	BROTHER ROAD OT (150)		В	AN	BU		<del>                                     </del>		1		<del> </del>	<del>                                     </del>	-		1	SITE
	TO PIPARO/ARCH OT (250)		B	AN	BŪ	<del> </del>	<del>-</del>	<del>1</del> -	- i		<del> </del>	}				ŜĨTĒ
	TO ST JULIAN OT (375)		<u>B</u> -	AN	BÜ		1 1	├ <del> </del>	<del>i</del>	+				} <b></b>		SITE
47 TCO BP		<del>}</del>		- Bit	<u></u>		<del> </del>	<del></del>	<del>                                     </del>			68	-	-	<u> </u>	01.15
Li 100 BL	BOOSTER SUCTION (900)		¥ B		<del> </del>		1	<u> </u>	1	<u> </u>		<u>ٽٽ</u>	· · · ·		<u> </u>	
	BOOSTER DELIVERY (900)	<b>-</b>	‡-Ř-	¥Ψ	BŪ		tî	† <u>i</u>	1	† <b>-</b>	†		ļ		ī	CSS
	RIO CLARO OT (300)		B-B-	ĀÑ	BŪ	†	†	<u>-</u> -	1	† - <b>-</b>	† <del></del>			r	1	SITE
	TCO B/PUMPS				50	† - "	f = ·	† <del>-</del> -	† ·	12	49	<u></u> -	-6	CSS		
18 NAVET		<del>                                     </del>		<del>                                     </del>		<b>T</b>	<del>                                     </del>	t		T		9				
,,,,,,,,,	HIGH DAM	F	1	1	· · · ·	1	Ī					T.				
	LOW DAM	F	T	T	T	Ī	j	T	T ·	I	$\Gamma^{}$	[				
	STORAGE LIFT PS (1200)	T	T	ĂÑ	ľ	T		[ ] ]	$\Gamma^{}$	Ι	[					
	RAW WATER (450)	I	T	AN:4	T	T	T ·	4	[ ]	Ι		L		L		L
	CLEAR WATER RESERVOIR	F	Ι	I		1	I									
	DISTRIBUTION (900)			AN											ļ	
[	TOTAL	38	127	160	124	38	127	160	113	58	249	745	29		113	ļ
	[	[ <b>-</b>	[ - 3 <b>- 3</b>		T					1	]					
			¥B 14		AV 9	Į.				1		1		CARONI	1	SITE
		D 11		AN139	1	Í			]			ŀ	23	CSS	7	CSS
	= LIST OF ITEMS =		*B 2		BU106			1						1	4	CARON
		FD 5			BU 1	1										
		F 10		¥V 11		1							l			l
<b>\$</b>	<u> </u>	L		]	#CV 2	]		L	L	l	<u> </u>		L	<u></u>		<u> </u>

Table 13 PROPOSED SPECIFICATIONS OF CSS HARDWARE

personal designation of the second se	ALLES PER	SPECIFICATIONS
COMPONENTS OF SYSTEM HARDWARE	QUANTITY	DEEGIT TOAT TORS
(1) CENTRAL DATA PROCESSING SYSTEM (CDPS)	2	MAIN MEMORY RAM 8 MB, CACHE 120 KB
CENTRAL PROCESSING UNIT (CPU)		CAPACITY 547 MB, SPEED 2.4 MB/S
FIXED DISK DRIVE	2 2 2 2 2 2 2 2	CAPACITY 1.2 MB
FLEXIBLE DISK DRIVE	<u>£</u>	CAPACITY 1.2 MB, SPEED 88 KB/S
CARTRIDGE TAPE DRIVE	4	
COMMUNICATION INTERFACE	<u>Z</u>	TYPE 16 bit, SPEED 10 KB/S
SERIAL INTERFACE	<u>Z</u>	INTERVAL 10 ms
SERIAL INPUT/OUTPUT INTERFACE	<u>Z</u>	SPEED 9600 bps
CRT DISPLAY		20 INCHES, COLOR, DISPLAY 4992 CHARACTERS
HARD COPIER	1 1 1	SPEED 60 S, COLOR 7
LINE PRINTER	1	SPEED 240 LINE/MINUTE, NUMBER OF CHARACTERS 136/LINE
SERIAL PRINTER	1	SPEED 120 C/S, NUMBER OF CHARACTERS 136/LINE
SYSTEM CONSOLE	1	CRT 12 INCHES, NUMBER OF CHARACTERS 136/LINE
GRAPHIC PANEL	11	SIZW ABOUT HEIGHT 2.0 M, WIDTH 7.0 M
UNINTERRUPTIBLE POWERN SUPPLY	2	15 KYA, BACK UP 1 HOUR
: MODEM	2	SPEED 4800 bps
(2) REMOTE TERMINAL UNIT (RTU)		
! INTERNAL CONTROLLER	48	MICROPROCESSOR MAIN MEMORY RAM 512 KB
SERIAL INPUT/OUTPUT INTERFACE	48	INTERVAL 10 ms
PROCESS I/O INTERFACE	48	INPUT/OUTPUT DC 4 - 20 ma, INPUT FAILURE ALARM
(3) DATA RADIO COMMUNICATION SYSTEM		
(CSS BUILDING)	ļ	
UHF TRANSCEIVER	2	413. 250 MHz, 418. 025 MHz, 10 W
COMMUNICATION INTERFACE	2	POLLING 5 Minutes, SPEED 200 bps, MANUAL POLLING
(REPEATER STATION)		
UHF REPEATER	2	413. 250 MHz, 418. 025 MHz, 10 W
. VIIF REPEATER	2	153. 950 MHz, 159. 960 MHz, 1 W
UNINTERRUPTIBLE POWERN SUPPLY	1	1 KVA, BACK UP 4 HOURS
(RITU STATION)		<u> </u>
VHF TRANSCEIVER	48	153.950 MHz, 159.960 MHz, 1 W
COMMUNICATION INTERFACE	48	POLLING 5 Minutes, SPEED 200 bps
UNINTERRUPTIBLE POWERN SUPPLY	48	1 KVA, BACK UP 1 HOUR
(4) REGIONAL OFFICE		
WORK STATION (CRT AND COMPUTER)	2	20 INCHES, COLOR, MAIN MEMORY 8 MB, FDD 200 MB
OPTICAL CHARACTER READER (OCR)	2 2	RESOLUTION 300 DOT PER INCH, SCANNER
HARD COPIER	2	SPEED 60 S, COLOR 7
NOMB		

NOTE:
RAM; RANDOM ACCESS MEMORY, MB; MEGA-BYTE, KB; KILO-BYTE, MB/S; MEGA-BYTE PER SECOND, KB/S; KILO-BYTE PER SECOND,
ms; MILLI-SECOND, bps; BIT PER SECOND, S; SECOND, C/S; CHARACTER PER SECOND, M; METER, KVA; KILO-VOLT-AMPERE,
DC; DIRECT CURRENT, mA; MILLI-AMPERE, MHZ; MEGA-HERTZ, W; WATT, I/O; INPUT/OUTPUT, FDD; FIXED DISK DRIVE,

Table 14 PROPOSED SPECIFICATIONS OF MONITORING AND CONTROL EQUIPMENT

COMPONENTS OF MONITORING AND CONTROL EQUIPMENT	QUANTITY	SPECIFICATIONS
(1) MONITORING EQUIPMENT		
LEVEL METER : FLOAT TYPE	10	DRUMS, FLOAT & FLOAT CABLE
: DIFFERENTIAL PRESSURE TYPE	11	DIAPHRAGM PRESSURE TRANSDUCER
FLOW METER : ANNUBAR TYPE	139	DIA. 100 MM - 1, 200 MM,
		ACCURACY; ±1%, BI-DIRECTIONAL FLOW SENSING
PRESSURE GAUGE: BOURDON TUBE TYPE	111	PRESSURE RANGE; O kg/cm2 - 10 kg/cm2
(2) INSTRUMENTATION		
LEVEL METER : AIR PURGE TYPE	4	INDICATOR, TRANSMITTER (DC 4 - 20 mA)
: DIFFERENTIAL PRESSURE TYPE	24	INDICATOR, TRANSMITTER (DC 4 - 20 mA)
: FLOAT TYPE	10	INDICATOR, TRANSMITTER (DC 4 - 20 mA)
FLOW METER : ANNUBAR TYPE	160	INDICATOR, ROOTER, TRANSMITTER (DC 4 - 20 mA)
PRESSURE GAUGE: BOURDON TUBE TYPE	125	INDICATOR, TRANSMITTER (DC 4 - 20 mA)
(3) CONTROL EQUIPMENT		
CONTROL VALVE : BUTTERFLY VALVE	106	MOTOR DRIVEN, FCD, DIA. 100 MM - 1,200 MM
CONTROL PANEL FOR CONTROL VALVE	113	INDICATOR, ONE LOOP CONTROLLER
INSTRUMENT PANEL FOR RTU AND CONTROL VALVE	113	INDICATOR, ONE LOOP CONTROLLER
REMOTE CONTROL PANEL FOR BOOSTER PUMPS	6	PUSH BUTTON, INDICATOR

NOTE: DC; DIRECT CURRENT, MA; MILLI-AMPERE, DIA.; DIAMETER, MM; MILLIMETER,

Table 15 SUMMARY OF COST ESTIMATE FOR PHASE I PROJECT

TEM	OF	FORET	GN CURRENCY	(US\$)			LOCAL CUR	RENCY (TT	<b>%</b> )		
EM					- <b>-</b>			imitar III			TOTAL
	FACILITIES		SUPPLY		D 14 (0 T)		L WORKS	SUB-TOTAL	SUPPLY	TOTAL.	TOTAL (US\$)
į	AND		INSTRUMENT	TOTAL		BUILDING WORKS			PORTATION	(TT\$)	(003)
<del>[ ]                                     </del>		EQUIPMENT	-ATION	(US\$)	CHAMBER	KUMA	PVIION	(CIVIL)	PORTALION	(113/	
11 00	NSTRUCTION WORKS (CSS)	·····				<u></u>	<u></u>		<del> </del>		
Ļ.	.OW METER	494. 2	1, 329. 8	1, 824. 0	1, 438, 4		775.2	2, 213. 6	155.0	2, 368. 7	2, 381.
	ONTROL VALVE	2, 156. 4	3, 779. 8		1, 396. 5		2, 522. 9	3, 919, 4	504.6	4, 424. 0	6, 977.
	EVEL METER	32. 5					132.6	132. 6	26.5	159. 1	349.
	RESSURE GAUGE		566.7				240.8	240.8	48. 2	289. 0	634.
	S's CENTRAL EQUIP		5, 861. 9	5, 861. 9		385. 3	240.8 1,902.6 89.9 93.1	2, 287. 9	380.5	2, 668. 4	6, 489.
ÉŘÉ	GIONAL OFFICE		211.6	211.6			89. 9	89. 9	18.0	107. 9	236.
RE	PEATER STATION		219. 1			, <u>-</u>	93. 1	93. 1	18. 6	111.7	245.
	U STATION		11, 832. 0			2, 219. 5	: J, UZO. U	7, 248. 1	1, 005. 7	8, 253. 8	13, 774.
	OSTER P/S		226.7	226. 7			96.3	96. 3	19. 3	115.6	253.
	PARE PARTS		249. 3	249. 3					21. 2	21. 2	254.
1	SUB-TOTAL	2, 683, 1	24, 556. 3	27, 239, 4	2, 834. 9	2, 604. 9	10, 882. 1	16, 321. 9	2, 197. 6	18, 519. 5	31, 596.
<u> </u>	[LSS]					1	1	ļ			
FL	OW METER					;					
	SUB-TOTAL		<del></del>	:		1 1 1 1	; t  ;				
	TOTAL	2, 683. 1	24, 556. 3	27, 239. 4	2, 834. 9	2, 604. 9	10, 882. 1	16, 321. 9	2, 197. 6	18, 519. 5	31, 596.
[2] EN	GINEERING SERVICES			3, 437. 0		1 2 1 1				2, 109. 3	3, 933.
LATOI	OF ITEMS [1] & [2]	2, 683. 1	24, 556. 3	30, 676. 4	2, 834. 9	2, 604. 9	10, 882. 1	16, 321. 9	2, 197. 6	20, 628. 7	35, 530.
[3] TA	X (VAT)					 				22, 650. 5	5, 329.
[4] CO	ONTINGENCY			4, 601. 5			) 			3, 094. 3	5, 329.
[5] AC	OMINISTRATION					*	1			755. 0	177.
GR/	AND-TOTAL	2, 683. 1	24, 556. 3	35, 277. 9	2, 834. 9	2, 604. 9	10, 882. 1	16, 321. 9	2, 197. 6	47, 128. 6	46, 367.

TABLE 16 ECONOMIC BENEFIT STREAM

ITEM	1990	1981	1992	1993	1994	1995	1996 1	1987	1938 1	1998 2	2000	2001 200	2002 20	2003 20	2004 20	2002 200	2006 20	2007 2008	08 2003	19 2010	3 2011	1 2012	2013	2014
Production(m3/day) 5	545636 54	545636 54	545636 54	545536 54	545636 54	545636 5456	%	545636 545	545636 545	545636 545	545636 545	45636 545536	36 545636	536 545636	335 545536	36 545536	36 545636	36 545636	36 545638	5 545636	54563	54563	242	545638
WITHOUT PROJECT  Un-accounted-for Water (%) Volume of Water Loss (m3/day)  Available Sales Volume (m3/day)  Water Demand (m3/day)  Sales Volume (m3/day)	7723 7723 558 558 558	72.818 27.7.7.2818 27.7.7.2818 27.7.7.2818 27.7.7.2818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.8818 27.7.7.7.7.8818 27.7.7.7.7.8818 27.7.7.7.7.8818 27.7.7.7.7.7.8818 27.7.7.7.7.7.8818 27.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.	72818 27 72818 27 72818 27 72818 27	7281827 20148 27 20148 27 20148 27 20148 27	722818277 722818278 72818278 72818278 72818278 72818278 72818278 72818278	2 P72818 P728818 P	2818272 2818272 2818272 2818 272 2818 272	22722 27228 27228 27228 2728 2728 2728	50 50 772818 272	2818272 2818272 2818272 2818272 2818272	272818 2727 272818 2727 272818 2727 255830 5672	272818 2728 272818 2728 272818 2728 107035 3775 272818 2728	1.02 P. 1.02 P	818 2728 818 2728 830 330 3394 818 2728	81882728 81882728 81882728 81882728	1188 1272 1388 1188 127288 127	113 2728 113 2728 113 2728 113 2728 113 2728	750 50 50 50 50 50 50 50 50 50 50 50 50 5	11.03   1	27.7281 27.7281 27.7281 27.7281 27.7281 27.7281 27.7281	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 10 10 10 10 10 10 10 10 10 10 10 10 10	750	272818 272818 272818 272818 272818 272818
Annal Sales Volume (1000m3) Average Water Revenue (TT\$1000) Annual Water Revenue (TT\$1000)	96974 1.94 1.88129 1.93 1.93 1.93	99579 1 1. 94 93182 1	4 99579 99579 995 4 1.94 1.94 1.94 1.94 1.99 9 193182 193182 193182 1931	39579 1.94 3182	1.9579 1.949 1.949 1.949 1.99	39579 39 1.94 39 3182 193	1879 1879 1871	99579 1.94 193182 1931	99578 39	99579 99 1,94 19	99579 99 1.94 99 1.3182 193	99579 99579 1.94 1.94 193182 193182	94 1.94 82 193182		99579 995 1. 94 1. 1.33182 1931	99579 99579 9 1. 94 1. 94 1. 94 1. 193182 13	182 94 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9579 99579 1. 94 1. 94 1. 93182 193182	79 99579 84 1.94 82 1.93182	34 1. 94 32 193182	9 99579 4 1 94 2 193182	9 99579 4 1.94 2 193182	3 99579 1. 94 2 193182	3 99579 1 1. 94 1 93182
WITH PROJECT Un-accounted-for Water(%) Volume of Water Loss (m3/day) Available Sales Volume (m3/day)  Water Demand(m3/day) Sales Volume (m3/day)	50 50 272818 2772 272818 272818 2772 265682 27399 288 265682 27399 288	7281827	72818 27 72818 27 72818 27 72818 27 81753 29	72818 27 72818 27 72818 27 90149 29	72818 50 72818 72818 72818 72818 72818 72818	272818 272818 272818 272818 272818 272818 272818 272818 27788 281		73254 73254 73254 7325 7325 7325 7325 7325 7325 7325 7325	254 211 7382 327 7382 327 7382 327	7382 381 7382 381 7382 381 7382 351	218254 218254 18359 183591 183 227382 182738 1827382 181945 183 226419 133211 194628 135530 1857 326419 127382 127382 1856830 1857	10.2691 16.2691 1 331.945 131.945 367035 177.533	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2	243611631 143611631 143611631	30 10 10 10 10 10 10 10 10 10 10 10 10 10	1457 1551 1457 1	30 30 30 30 30 30 30 30 30 30 30 30 30 3	1 10 10 10 10 10 10 10 10 10 10 10 10 10	100 30 30 30 30 30 30 30 30 30 30 30 30 3	11 11 11 11 11 11 11 11 11 11 11 11 11	10011111111111111111111111111111111111	1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2019454 2019453 2019453 2019454 2019454 2019454
Annual Sales Volume (1000m3) Average Mater Revenue (TT\$/m3) Annual Water Revenue (TT\$1000)	36974 9 1.94 9 188129 19	74 98579 84 193182 11	99579 1.94 1.94 1.94	193182 18	99579 U1	2304 1 1. 94 7869 2	1405 1405 1405 1405 1405 1405 1405 1405	19143 1119 1. 94 1 11137 23	119494 118 1.94 118 231819 23	19494 130 1.94 130 1.94 130 131819 255	30243 133 1.94 1	133968 1377 1 94 1377 159898 2673	7799 139	139410 1139 11.94 1 270455 270	139410 1394 1,94 1,1 270455 270	39410 1394 1.94 1. 20455 2704	139410 139410 1. 94 1. 94 270455 270455	410 1394 94 1. 455 2704	139410 139410 1.94 1.94 270455 270455	10 139410 13 94 1. 94 55 270455 27	10 139410 1 34 1. 94 55 270455 2	10 139410 14 1. 94 55 270455	0 139410 4 1.94 5 270455	1 3 3 4 1 0 4 1 3 4 1 0 5 2 7 0 4 5 5
Savings in Personal Costs (TT\$1000) Incremental Revenue Benefits (TT\$ 1000)	00	00	00	00	00	24686 3	31223 3	37955 3	38636 34	38836 5	59489 66	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	74148 77	77273 77	77.773 77	77273 772	77273 77:	77273 772	0 0	73 77273	0 0	0 0	3 77273	3 77273
Total Benefits(TT\$1800)	0	0	0	0	0	24686	31223 3	37955 3	38636	38636 5	59489 66	66715 741	74148 77	77273 77	77. 27.2	17273 772	77. 27.27.7	77273 772	77273 77273	73 77273	77273	17273	3 77273	3 77273

Table 17 ECONOMIC BENEFIT AND COST STREAM

Γ		٣7									-			,		. 1	1	, ,	ï	, ,				ì	-	96
, .		Į	_	75"	4	ġ,	-	~	4	4	ф	82		မ္တ	5	ر اع	S,	얔	쫎	;	2	읔	88	8	;\ <b>3</b>	صا
ľ		-	8	8	š	2	m	9	'n	ï	တ်	댎	0		1	ići.	نيء اجع	ان	ং	ر برا الأيم	است. المسا	احت ائت	ابرا این	1,0	410.	٥
പ		ı	4	50	0	Ξ	Ö	19	18	19	33	53	5	56	17	7	-	ام	اص	-		-	ភេ	11.	\ <u></u>	
		4	_	_	<u></u>	<b>,</b>		-	-		100	160			اردي ا	<u>ب</u>	ردي. احت	<u>س</u>	رن اسا	6.31 	دن. ا	دن) إسما	100	15.	-	1
臣		ļ	۰	,	<u>ت</u> .	8	3	3	3	53	₩	7	₹.	7	2	77	7	7	7	7	2	<u>ائز</u>	2	100	3,5	
enefi		-		i	i	2	ij	-	χ	ထွင်	5	8	7,4	73	12.	-	2	2	E	5	<u>ات</u>	;c:	<u>ر</u> ج:	11	1.	1
m.		-	_	[ <del>41</del> 4 	· ·		_			-	102	16.3	: t~	1	2	ابي ا	رنغ استا	41	4	5.0	55	153	, <u>.</u>	ļ,	1	1
됞	3		g	ĝ	è	ŝ	5	6	5	5	33	23	9	0	[8	8	S	8	8	ĸ	,ES	[66	ö	ļ	5¦-	1
Tota	Costs		4	5	6	ģ	į	7	Z	2	'n	إدي	77	12	33	22	i CO	i G	COS	ω,	ا این	ا اس	[지	,,,	3,0	3
<u> </u>	. (0	Н	4	_	12	ᄪ	in	lr.	IIC)	iro	ייי	'n	.0	ici	100	5	173	l.C	L.	ī	123	12	100	10	215	1
]	3		32	12,	¦Z	ļ	់ខ្ម	5	¦E	16	ļ	9	.55	. 왕	14	4	8	ြ	6	6	,59	ļ.	4	ľ	ř¦č	1
			1.1	<u> </u>	;=	:-	ì	,	i.	ı I	ı L	1	ļ٤	¦≅	:22	122	1	:	:	:	i	:	į۳	-	10	í
	爣			<u>}_</u>	느	<u>-</u> -	<u>-</u> -	<u>-</u> -	<u>}                                    </u>	<u>}                                    </u>	<u>;                                    </u>	<u>-</u> -	ļ	<u>-</u> -	<u>}</u> -	<u>-</u> ۲	-	<u>-</u>	-	'n	ļ-	; [0	i-	ir	- i	
	Ę	9	٦	!	! !	!			-	:	!	;	-	1	ï				-		i	ì	1	į.	무	3
	: 3	/alu	ĺ	i	:	i	į	į	į	i	į	į	Ĺ	i		1	1	•	1	٠.	-	1	:	;	is.	ř]
50	œ.	<u>`</u>	۱	<u></u>	<u>.                                     </u>	, -	è -	r F	'n	Ļ	i -	i LCZ	ilc	-	'n	5	i G	L	ī	ار د -	ίτυ 	inc.	ile:	il L	بران 1. ا	,
녆	×		ľ	-	[	!	¦ō.	5	5	ō.	6	o	o	6	6	တ	တ	9	8	8	Ġ	ļ	ļo	;¦ċ	n¦o	ᅨ
et et	ळ			ì	,		ĺ	ĺ	i .	į.	!	ŀ	!	ľ°.	:	1,	1 .	•	:	:	:	;	;	ŀ	4	1
130	6-0				i C	'n	ic.	í	ī	ic.				4	4	4	.0	<u>, 0</u>	<u>.</u>	0	ĺ	ica ica	. 4	i.	<b>#</b> i<	:
	ဗ္ဗ	ديق	ľ	;	Ϊ		į.	1.	1	1	1	;	7	ů.	8	5	i.	l E	ı L	i	1	!	'n	:	ų, į	?
	Sep.	men		i	i	į.	t 1	ŀ	!	ŀ	1	1	17	-		1	1	:	l L	ŧ.	1	ŀ	15	4	-;:-	Ē
	بت احت	_ 6	Ļ	r -	, <del>-</del>	13	ر ارت:	-	, C	ı.	راد	.ر د	, r -		6	0	.0	ĺ	6	ĺ	ije		, C	210	2,0	>
	113		ľ	12	12	ţ.	ì	1	,	;	;	1	;	;	ŀ	1	1	1	1	1	:	1	:	1	1	1
	<u>'</u> 'a	٠.	15	1	15-	1	i,	ŀ	1	i	1	1	1	1	!	:	!	1	1	Ŀ	:_	<u>:</u>	<u>!</u>	ì		
-	ਾਫ਼		5	ilu:	100	1	, lo	115	115	215	15	15	٦	5		2	2	7	14	.3	12	2	3.5	31¢	310	2
	इं		12	12	;;<	í¦e	۶¦۶	','≂	'¦≍	, ~	í¦ò	s¦àà	, à	8	i¦∝	č	¦∝č	6	. 2	Ċ	) a	) ac	'n	o; i	»,'n	9
1	<u> </u>	-	Į٣	;;	1	12	i c	12	: <u>;</u> =	112	7,	:	:	:	ŀ	į	į				•	;	:	į	1	1
1	滔		L	+	+	<u>.</u>	<u>,</u>	٠ <u>۲</u>	· -	- <del> </del> -	ار د ار	- <del> </del>	, j	- <del> -</del> -		, - , -	-	 عرد	} ~	i c	- <del>-</del> -	٠ <u>-</u> ۲	r i	- ה סוג	- ċ. ⊃ı-	4
١.	∄	e)	٦	Ϊ.	:	;		-	ŀ	-	-	ï	1	:	1	1	ŀ	1	F L	;	1	1	ı.	1	Ę	门
	esı	'a tre		į	i	i	ì	i	į	i	i	1		;	ŀ	ļ	ŀ	1	:	1	ŀ	;	;	1	10	٩
3.	~	_>_	L	i -	; ;	יי פוכ	,	- F	) i e	ارد د د	710	710	210	. ר	,,,	10	,,,,	١٠		le.	310	<u>ئاڭ</u>	516	516	2312 -1	3
2	25		1	ï	:	ŀ	12	3,8	3¦&	3¦8	វ៉ុន	3,8	3¦£	3,8	3¦€	',2	,≅	:2	8	,≅	i a	3,8	š¦č	ŏ	8,	ĕ
Ö	108		ļ	i	i	1	ì	1	;	1	;	:	ŀ	:	1	1	1	1 .	ļ.	:	1	÷	ŀ	1	1	_
14	, -0 -0		L	210	o i c	ء ر د	- F	- r	210	210	210	210	210	2	ء اح	, c	, ,	) E	:::	ıc	وأد	210		2	ءِزد	-
8	a s	٠	Į.	1	t t	ŀ	:	;	1	1	1	1	1	1	;		:	6	ĕ	;	t	ï	i	,	i	ļ
9	9	Ē		1	ŀ	1	. [	,	ŀ	ł	ţ	;	ŀ	ļ	1	;	1	į	1	1		1	1	1	1	
T		_==	١,	-14	210	212	nie	שום - ר	nie nie	, ic	) (C	DIC.	٠,c	oie.	210	oic.	210	)ic	) C	,,,	o i c	) C	عاد	2	= 6	>
1.	tia		ú	5 6	쉵	á¦c	2,'0	٥١٥	2,1	2,'6	2,	;	ì	:	1	÷	1	1			÷	;			-	
ļ	10		5	3,6	3,-	1,0	3,5	315	4,5	식은	왁;	1	1	1	;	-	-	; .	:	:	<u>:</u>	:	÷	į		
上	a		4	o u	Zi.c	Ži.	A I L	317	Ziu	714	211	Si i	2/2	2,4	210	15	2,5	긴	315	31.6	3.8	314	315	S I	S: 8	5
1	o	•	å	5 ' c	รุ่น	۰, ۰	* 6	418	;¦F	٦',	-   6	-   -	· i	- ' -	-¦∝	ייי	, [	ŗ	- 1			-, r	~, r	- 1	`.``	2
1:	4	}	ľ	1	3,5	215	31.	-11-	71-	1	<b>-</b> ;,	-11-	1	`!-	115	-,6	š¦*	,	1		1	,,,,,	1	1		ij
1	Ž.		ŀ	- <del> -</del>		-ŀ	- <del> </del> -	- ¦-	-}-	-¦-	-뉴	- ¦-	-¦-	-¦-	-ir	- ¦- ·	- } >   €	- j-	٠ د د	ے ن	- ř	- i-	- j-	- r	-i-	-
	Ë	9	راي	-10	;	-;`	1	;	1	1	1	1	1	1	!	:	1	1	1	1	+	į	÷	1	,2	õ
1		12 110	;	į	•	i	1	i	ĺ		i	1	ŀ	I	ļ	;	P	1	:	;	1	1	;	1	16	7
1	~	حز. ن	-	- i-	- j-	- <u>-</u>	ار - د	- L	- j-	٠,۲	٠.۲	- L	- L	er Din	21 <u>1</u> 4	21 <u>7</u> 0	51.ft	Sin.	51R	51F	د د	517 - L	517 - t	ڪا ساد	برا در د	
0	s¦æ	2	ľ	1	1	1	ļč	2)	2	?;	2,6	ူး	7;6	";5	2,5	';' <sup>2</sup>	12	΄,ξ	. 5	.,6	΄, Έ	, F	<u> </u>	ij	₹"	~
0	) os	3		1	÷	i	ŀ	-ïi+	-î₁-	1 110	-i;+	-11-	-:-	-₹1+	-i1+	-11-	-71-		11-	1	_ <u>'</u>	ار ا	-¦-	<b>-</b> 1	4411	7
١	<u>.</u> ا	' >	ŀ	- jr 510	- r 510	~ ř	ے۔ ماد	2.0	- r	- r	- r	ے د	- r	- L	- r	3,5	gic.	510	ء زد	5	- r	) tC	ماد	5	ر ا	∍Ì
1	2	3	ً [ر	1		i	:	1	ŀ	1	ŀ	+	1	1	įē	2,0	.;	1	1	:	1	1	1	1	:	
-	1	, 6	į	ţ	1	÷	;	1	ŀ	1	ļ	+	i	ŧ	1,4	1,0	3,		:	1		-	1	1		
j	i.	ŧ	٦,	ojiu Ojiu	516 - L	2:5	-1	219	ء ر ماج	<b>DIC</b>	- <u>i</u> -	- r	219	- r	2,0	2,5	-i-	210	oic	210	عاد - د	ء آد	2	ے ا	0	0
		;	6	ಕೃಳಿ		S.		1	1	1	ï	1	ŀ	;	-	1	1	:	1	1	:	- [	1	1	1	
	Initial Benjace-D		ľ	416	016	710	ξį	1	÷.	1	;	;		;	!	1	1	;	!	1	1	-	;		_;_	
r			9	710	313	4,11	Č,	ė,		Q.	2019	317	ું.	315	313	<b>5</b> 12	318	3:5	-12	315	315	31:	յ։	2	2013	7
			15	2,5	ž.:	5	ή,	ź¦.	ď;	ď.	2,8	₹,8	3,5	₹;¿	3,5	2/5	3,6	3,5	3,5	3.6	ğ 6	₹.6	₹.	₹.	8	20
ļ		2002	3	1	- [	1	1	_;	_¦	1	1	1	;	1	ŀ	+	ť	;	ť	<u>:</u>	<u>;</u>	i	i	i	- :	
-			-																							

Table 18 FINANCIAL BENEFIT STREAM

		_											<del></del>		-,				<b></b>		_		_,-	<del></del>		_
2014	36324	543039	8	272818	5675	77818	1	99579	0.99	98583		30	183891	181045	20/6/	10,000		139410	0.09	138016		648	000	38433	1000	4000
2013		242030	000	72818 1	777818 1	72818 5		98579	0.33	98583		문	163691 153691 163691	1 1 2 1 2 1 3	1 27275	77777	381345	35410 1	9 0.33 0.99	138016		548	40700	39433	10004	4002
2012		243030	30	72818	7.28]8	72818 7		99579	0.99 0.99	98583		99	53591	A 20018	100,000	50.00	C55120	39410 h	0.33	38016		548		38433		40081
2011		543630 54	05,	72818 2	72818 2	#12388 #60310 DUGGO B14/42 P23454	4	39579	33	38583		30	30.5	212	210		134	341	'O	į	:	848		38433		40181
2010		545050 54	0.	72818 2	72818 2	28180	21 1	99579	8	98583		3	52601 1	1045	40000	200	1 CPR 18	39410 1	0.39	38016 1		648		39433		40081
5008		242010 24	8	72818 2	281827	19818	2	99579	0.33	98583		33	33601 11	10/11	215	2000 C	81845 8	35410 1.	0.99	38016 1.		648	-+	39433	-+	40081   4
2008	36338	130 SB	OS,	72818 2	72818 2	7979 18 27 4 18 19 19 19 19 19 19 19 19 19 19 19 19 19	21 1	99579	0.99	98583		33	33601 11	4 10052	21000	E 100/8	81945	39410 1:	0.39	38016 1		648	$\rightarrow$	39433		40081   4
2007	P	543030 54	50	72818 2	72818 2	34621 8	21 1	19579	0, 99 0, 99 0, 99 0, 99	98583		Ę	3501 16	40.00	212	17060	381945 381945 381845 381945 381845 381845 381845 381845 381	19410	0. 99   0. 99   0. 99   0. 99   0. 99   0. 99   0. 99	38016 T		648		39433		40081 4
2008		545636 54		72818 2.	72818 2.	156830 367035 077533 388330 389436 410788 422537 434621 44	5157	99579	0.99	98583		5	201	4 45050	2 2 2 2 2	b /5077	81945 3	19410 1	35.0	78016 IL		848	-+	39433	_	46081   4
2005		545636 54	25.	2818 27	72818 P.	10 /88 FF.	0101	1 <u>9579   S</u>	0 99	18583   1		Ş	1000	1000	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20/11	31945 31	9410 13	0.93	28016		648	$\rightarrow$	39433 3	₹	40081   4
2004		545636 54	20	2818 21	2818 27	5818 27	0107	9579	0.99	18583		Ş,	2501	17 12000	21212	24.50 H	11945 3	9410 13	500	8018 113		648		39433 3	_	40081 4
2003		45636 54	8	2818 27	2818 27	8330 BS	0707	9579	0.99	8583		, ,	2007	10021 10001	2124	5 5	11945 33	9410 113	16	8016 13		648	-	39433 3		40081   4
2002   2		545636 54	00 00	2818 27	2818 27	7533 58	77 0107	9579 9	0.99	1 98583   98583   98583   98583   98583   98583   98583		۶	2 6	71.0	057	33	7533	7700	16	6421		648	$\rightarrow$	37838 3		38487 4
2001 2		545636 545	20	2818 27	2818 27	7035 97	77 0107	9579 9	98	8583 8	-	5	25.03	1707	21.00	(0.35 (3.07)	7035 83	3068 13	0.03	2628 13		648	1	34045 3		34683 3
2000 2		545536 545	20	818 27.	2818 27	5830 38	77 0107	1578	7, 39	\$583 9		5	2001	1202	1240 50	983U 58	<u>6830 138</u>	F # 526F	200	3941 13		648		30328 34		31006 3
1999 2	<b> </b> _ i	545636 545	20	18.27	2818 27	5238 35	5010 K.f.	1579 9	1.987	3583 9	-	ę	10 H 536	077 500	207	25.88 35	7382 35	1494 12	1 99	1298 1121		548	1	9717 30	- 1	20365 3
1 8861		545636 545	20	818 272	818 272	336211 346298 35 555015 555018 55	775	579 95		583 95		ç	25.0	777 5070	707	7211 34	7382 32.	394 110	0. 99   0. 99   0. 99   0. 99   0. 99	239 116		648	-1	9717 19		20365   20
1 1 1 1 1 1 1	H			818 272	818 272	419 336	777 510	579   89	0 66	98583 38583 38583		Ę	40 007 870	777 507	307 700	413 531	419 32.	143 110	3 50	951 118	3	648		19369 19		20017   20
366		636 545636	65	818 272	818 272	911 326	777 010	579 99	0 6	583 38	···-	ç	354 210	217 500	75.	911 32t	911 326	673	200	516 117	7.	548	1	933 19	~+	5581 20
1995 19		536 545	20	918 <b>2</b> 72	818 272	265682 273599 281753 290149 298785 007681 116911 126419 13						Ę	40 H	514 FC2	700 700	981 316 1316	265682 272818 272818 272818 272818 307681 316911 326419 327382 327382 356530 367035 37	307 115	0.98 1.0	183	-	648		12598 15		Ξ
1994 19		545636 545636 545636 545636 545636 545536 545	20	118 272	318 272	7.95 507	777 570	779 99	[0] [65]	583 88		5	100	070 470	770 970	789 007	918 307	30 115	0.99	183 111	4	0		0 125	+	0 13246
1993 19		36 5450	20	18 2728	118 2725	49 298	777	79 99.	98	83 38		Ç.	00.00	7772 010	777 076	43 238	11 <u>8</u> 272.	70 005	100	188 188 188	77	0		0		0
1992 199		36 5456	6	18 2728	18 2728	53 2301	77 77 77	79 995	99 0.	83 985			10 0750	27/25	10 K K	23 2301	118 2726	70 005	20	12.	): 	0		0	-	_
		36 5456	9	18 2728	18 2728	99 2817	7777	79 995	99 0	83 985			20.	07/7 OT	77/7	98 2817	18 2728	70 005	10	37 - 985	); -1	0	$\sqcup$	0	-	_
1661 06		36 5456.	0.	8 2728	8 2728	22 2735 22 2735 22 2735	97/72	74 995	30 10	74 985			100	27.72	97/7 p	32 Z735	92 2728	7 00c V	20	14 485	31	0		0	_	_
1990		54563	11	27281	27281	75558	7 C23	1 9597	0	1 960	$\overline{}$	T	7	87/3	97/7	_	-	- 1 0607		1 9800	-			آوَ آوَ		_
			1   1				1	• • •	• · · · · · · · · · · · · · · · · · · ·	)   96004   98583   98583   98583   98583   98583			1 1 1 1 1 1 1 1 1			1		1	Adverses Water Bevenue (1718/83)	1		\$1000)		Incremental Revenue Benefits (TT\$ 1000)		
		!	PROJECT Water(\$)	/day)	m3/day)	1	-	0=3)	T\$/m3)	\$1000)	E	1 6	( <del>e</del> )	1/ day/	m3/day,		1	(c=0	78/m3/	X1000	70000-	ost (T		efits		
TEM		\$	PRO.	.oss (m3,	Volume (	day	ďąy)	me (100)	renue (T	Sing (T	1001	֓֞֞֝֞֜֞֝֓֓֓֓֓֓֓֓֓֓֓֓֟֓֓֓֓֓֓֟֓֓֓֓֓֓֓֟֓֓֓֓֟	water.	CEL) SSO	Volume	day)	day)	(100)	repure (T	L) olius	1,	sonal C		nue Ben		(0001\$1
		1 (m3/da)	UT.	Water	Sales	and (m3/	ime (m3/.	es Volu	ter Re	ter Reve	0	2	ted-tor	Mater	Sales	and (m3/	те (т3/	100	tes vol	מיכו לפני	): ::	of Per.		al Reve		efits (T
		roduction (m3/day)	WITHOUT In-accounted-fo	une of	ilable	Nater Demand (m3/day)	ies Volt	ual Sal	rage Wa	Annual Water Revenue (TT\$1000)	73.67	ALIA FROJECI	account	une of	lable	er Dena	Sales Volume (m3/day)	100 (01)	Tage Va	10.050 P	2	eduction of Personal Cost (TT\$1000)		rement		Total Benefits (77\$1000)
1		Š	1 ≥ 5	.0	, Š.	ď,	g,	ŝ	Š	ខ្មែ		راح	ς.	Ģ.	λ.	ğ	Şa		물 \$	ءِ ۾ اخ	Ē.	إيق		녎		Ö

Table 19 ESTIMATED AVERAGE WATER RATE BY CUSTOMER CATEGORY

		1990					1995			
ustomer	Annual Water		Water	Annua]		Annual Water	ļ	Water	Annual	
ategory	Demand*	36	Rate**	Revenue	96	Demand*	96	Rate**	Revenue	96
	(m3/vear)		(TT\$/m3)(TT\$)	(TTS)		(m3/year)		(TT\$/m3)(TT\$)	(TT\$)	
Domestic	68877026	68	1.08	74387188	80	77695276	99	2.64	204780549	78
. Industrial/	2748947	က	0.51	0.51 1401963	2	3508910	က	1.50	1.50 5250783	67
Agriculture	- 1	1	,		; ; ;	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1	,	i ,
.Commercial/	1374474		1.87	1.87 2570266	က	1754455		4.49	7876174	(C)
Public	1	1		1 1 1	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 1	-		1 1
i. Special	28255745	28		0.51 14410430	16	34246344	53	1.30	44631658	
Industrial								_		
e. Total or	101256192	100	0.92	0.92 92769847		100 117204985 100	100		2, 24 262539164	100
Average	- 1									
f. Domestic	-									*****
Category Per										
Capia Demand	215.4			*		223.8				
(lpcd)										

Notes:

\* Annual water demand was estimated by JICA study team. \*\* Water rates in 1990 were taken as the same as an average of those in 1988 and 1989. Average water rate in 1990 is different from the actual figure of 0.99 since

NOTE: AN: ANNUBAR, AP; A1R PURGE TYPE, AV: ALTITUDE VALVE, B : BOURDON TUBE, BU: BUTTERFLY VALVE.	F: FLOAT TYPE, O: ORIFICE PLATE, P: PROPELLAR TYPE, PF: PARSHALL FLUME, V: VENTURI TUBE,	SH; SHEET, ST; STREET,	WW; WATERWORKS, OT; OFF-TAKE, JCT; JUNCTION, IC; INTERCONNECTION, BPS; BOOSTER PUMPING STATION,	(300): PIPE DIAMETER (MM), "*"; EXISTINGS TO BE USED, "¥": EXISTINGS (REPLACEMENT PERIPHERALS), "#": INSTALLATION OF CONTROL EQUIPMENT,
---	--	---------------------------	---	---

RES: RESERVOIR. BU: BUTTERFLY VALVE. V ; VENTURI TUBE, DIFFERENTIAL PRESSURE TYPE, D\_; RD: ROAD, INTAKE, CONE VALVE, HAS MIMBER & NAME OF NUMBER OF MONITORINGUNSTALL NUMBER OF MONITORING DATA EQUIPMENT TO BE NAME OF EQUIPMENT RTH STAT. EQUIP. BY CENTRAL SUPERVISORY SYSTEM (CSS)
CONTROL WATERWATERFLOW VALVE PUMP ALARMTOTAL
VALVE LEVELPRESSRATE STATUSTATUS CONTROLLED DATA BY RECORDER TO BE INSTALLED MONITORING POINT TO BE VALVE WATERWATERFILOW TOTAL LEVEL PRESS FLOW INSTALLED NO. | PLACE NO. | PLACE METER LEVELPRESSRATE GAUGE METER [STEP 2] 5 1 NORTH OROPOUCHE WW ¥ PF 1 2 RAW WATER CLEAR WATER RESERVOIR + D 2 2 DISTRIBUTION (1050) 2 HOLLIS WW IMPOUNDING RESERVOIR
RAW WATER (300)
DISTRIBUTION (600) 1 1 ĀÑ 1 ĀÑ 15 3 GILL TRACE QUARE WATER TANK D ΨB V QUARE DISTRIBUTION (300) 1 ŠĪTĒ БŰ ΑN GILL TRACE OT (300) B SITE SITE 1 ΒŪ 1 QUARE (1) OT (150) QUARE (2) OT (150) B ÀΝ ΒŪ 1 ÁΝ 1 SITE ĒŪ TO SANGRE GRANDE OT (400) ΑN 15 12 4 ARIPO BPS 0 ARIPO (NEW) RAW WATER (300) ARIPO (OLD) RAW WATER (250) FORT READ RESERVOIR (250) ĂÑ Ď. ÂŇ ĀÑ FORT READ RESERVOIR (30D) D - 1 1 ŠITĒ ¥ Ÿ ĒŪ ARIPO BPS (300) SITE ĒŪ CUMOTO(1) OT (300) CUMOTO(2) OT (300) B. ÂÑ 1 1 SITE ΒŪ ĀÑ ī 11 5 GUANAPO JUNCTION 8 GUANAPO RAW WATER (300) AN \_\_<u>D</u> GUANAPO RESERVOIR (300) 1 SITE 1 SITE 1 SITE GUANAPO WW DIST. (300) DOUBLE BRIDGE OT (150) ΒŪ B. ĀÑ ĒŪ GUANAPO JUNCTION OT (300) R AN 6 6 DEMERARA JUNCTION SITE 1 1 DEMERARA JCT OT (300) 1 AN ĩ BŪ SITE TUMPUNA JCT OT (300) AN ī 17 13 ARIMA OLD RESERVOIR \_ 1 ARIMA NEW RESERVOIR (375) ARIMA OLD RESERVOIR (200) D ΑN ĺ 1 SITE В BŪ TO MORENO ST OT (150) ĀÑ ī SITE ΒŪ В ĂŇ QUESNEL ST OT (300) ŜĪTĒ BŪ B 1 OMERA JCT OT (150) ٨N 1 Ĩ SITË \_1 ΒŪ \_ 1 ARIMA BPS (300) ĂΝ 1 ARIMA WELL (200) ARIMA B/PUMPS AN 1 . \_ 18 12 8 MAUSICA JUNCTION SITE RH OLTON RD OT (150) 1 SITE BOYS LANE OT (200) Ē. BŰ ΑÑ 1 SITE ÄÑ ΒŪ MAUSICA JCT OT (150) B \_\_\_ ŠĪTĒ 1 CARAPO OT (300) MAUSICA OT (300) MALONEY JCT OT (300) ΒŪ ĀÑ ŠĨŦĒ ΒŬ B AN 1 SITE ΒŪ B AN 9 ñ 9 AROUCA W CLEAR WATER TANK D 1 1 ŠITĒ DISTRIBUTION (200) BŪ SITE 1 BORNE AREA #1 OT (150) ΒŪ ĀÑ ŚĨŢĒ LOPINOT IC OT (300) ĀÑ ΒŪ 5 4 10 CAURA W RAW WATER (400) AN 1 CLEAR WATER TANK D 1 SITE ΒŪ B. ĀÑ DISTRIBUTION (400) 12 11 TACARIGUA WA CLEAR WATER RESERVOIR 1 ¥ D SITE SITE SITE 1 1 DISTRIBUTION (1) (300)
DISTRIBUTION (2) (400)
TO CAURA BPS OT (225)
PASEA RD OT (175) B. ₿Ū ĀŇ 1 ₿Ū Ē ĀÑ ĀÑ ĀÑ ₿Ü

NOTE: AN; ANNUBAR, AP; AIR PURGE TYPE, AV; ALTITUDE VALVE, B; BOURDON TUBE, BU; BUTTERFLY VALVE, CV: CONE VALVE,	F; FLOAT TYPE, O; ORIFICE PLATE, P; PROPELLAR TYPE, PF; PARSHALL FLUME, V; VENTURI TUBE, RD; ROAD,	AV : AVENUE, WW : WATERWORKS, (300): PIPE DIAMETER (MM).  INW : HIGH WAY, OT : OFF-TAKE, "*": EXISTINGS TO BE USED,  ST : STREET, JCT: JUNCTION, "Y": EXISTINGS (REPLACEMENT PERIPHERALS).  ST : STREET, IC : INTERCONNECTION, "#": INSTALLATION OF CONTROL EQUIPMENT,  RES; RESERVOIR, BPS: BOOSTER PUMPING STATION,  IT : INTAKE, D : DIFFERENTIAL PRESSURE TYPE,
NUMBER &		PHASE I
NAME OF		A L POUTPET TO DE TRANSPORTED TO DE

BU; B	DURDON TUBE, PF; PARS UTTERFLY VALVE, V; VENT	URI TUBI	E,	S1 ; S1 RES; RE	SERVO	1R,	BPS;	BOOSTI	ER PUMP	ing s			•	111011						
CV; C	ONE VALVE, RD; ROAD	·····		IT; IN	TAKE,		D ;		RENTIAL P H				Ī							
NAME OF	yuura an		S		P	1	UNI IT	ODING	INSTALL		MINE		S T MONIT			3	F	CUTPME	<b>አ</b> ተ ተ	O BE
RTU STAT. TO BE	NAME OF MONITORING POINT		QUIPMEN E INSTA	1110	TAG İ	A RY	RECOR	DER I	FOILTP.	BY C	ENTRA	L SUP	ERVISO	RY SYS	TEM (	(CSS)		CONTR	OLLE	D
INSTALLED			PRESS	FLOW METER	WATER	WATER	FLOW	TOTAL	CONTROL VALVE	WATER	MATER	FLOW	VALVE	PUMP STATUS	ALARM	TOTAL	PI NO I		VA NO	LVE PLACE
[STEP 2]	NTROL STATION	METER	GAUGE	METEN	LEYEU	PRESS	WIII	7		LLILL	1100	140114	DIMIGO	7411100		11				
	PIARCO JCT OT (300)		<u>B</u> -	AN		1.			BU BU		<u>1</u> -	$-\frac{1}{1}$	$-\frac{1}{1}$		. <b>-</b>				. <u>-1</u>	SITE SITE
	BY-PASS OT (300) FLOW CONTROL STATION(800)		$\frac{\mathbf{B}}{\mathbf{B} \cdot \mathbf{Z}}$	¥ V		$\frac{1}{2}$	1-		# CV-2		2	1	2						2	SITE
13 ST AUGU	STINE RESERVOIR							10	AV			1		<u> </u>		10				
	RESERVOIR (750) St John RD of (300)	F.	<u>-</u>	AN AN	- 1-	1	$-\frac{1}{1}$		A	1	1	1			<u>-</u>			. <b></b> -		<u> </u>
	TO TUNAPUNA OT (150)		<u>B</u>	AN	ļ	1	[ ]			<b>-</b>	<u>1</u>	$-\frac{1}{1}$						- <b></b> -		
	RABIR ST OT (200) RIVERSIDE RD OT (100)	<b></b> -	<u>B</u>	ĀÑ	<del> </del>	- 1 1	$-\frac{1}{1}$				<del>1</del> -	1								
14 TURAPUN	A BPS					<u> </u>		12	BU		1	1				48			1	CSS
	TUNAPUNA (1) (150) Tunapuna (2) (200)		<u>B</u>	AN AN	<del> </del>	- <del>1</del>	- 1 1		BŪ.		1	1	<u>i</u>	<u> </u>			 		1	CSS
	TUNAPUNA (3) (525)		B	AÑ	Ţ	1	1	[			1.	1			ļ <b>-</b>				1	ŠITĒ
	PASEA ST OT (100) TUNAPUNA RIVER (1) (300)		$\frac{B}{B}$	AÑ AÑ		- 1	†-†		BU BU		1	- <u>1</u>	11						1	SITË
	TUNAPUNA RIVER (2) (525)		Ĕ.	ĀŊ	ļ				BŪ	[	1	1	1	6	25	}	-2	ČSS	1	SITE
15 ST JOSE	TUNAPUNA B/PUMPS PH RESERVOIR			├		-	┼	11	-			-			2.5	15	3	OZAJ		
DI 0000	RESERVOIR	F			1_	,			BŪ	1		1		ļ <i></i>			٠		1	SITE
İ	TO ST JOSEPH OT (225) TO RIDER MAIN OT (200)		- B B	AN AN	}	$-\frac{1}{1}$		╂	<u>Bu</u>	<del> </del>	i	1	1	l :					1	SITE
	MENDEZ STEFL SH. OT (200)		В В	AN AN	1	$\frac{1}{1}$	1		BU BU	ļ	1	1	<u>i</u> -	<del> </del>		·			1	SITE SITE
1	MATERNITY HP. OT (100) ST JOSEPH(1) (175)		В.	AN AN	<del> </del>	├ - <u>-</u> ^	1 1	l	<u>DU</u>	<u> </u>	1	î	<u>-</u>	<u> </u>	‡ <b>:</b>	<u> </u>				
	ST JOSEPH(2) (300)			AÑ			1	8				1	<del></del> -	<del> </del> -	<del> </del>	41				
16 VALSAYN	RAW WATER (750)			¥Υ	1-	┢┈	1	- 3	<u> </u>			1			<u> </u>					
	CLEAR WATER RESERVOIR	¥ D		5-5-		[		F	BŪ	- 1	1	1-1	1	ļ	ļ					SITE
	DISTRIBUTION (750) BOOSTER SUCTION (450)		¥-B-	¥ V		- 1	ti	<u> </u>		<u> </u>	[]	1		‡ <b>-</b> :	<b>†</b>	1			Γ	
	BOOSTER DELIVERY (450)		Ϋ́В	ĀŇ	[		] ].		BŪ		_1_	1 - 1	1		25		3	ĆŚŚ	] _1_	css [
17 URIAH E	VALSAYN B/PUMPS BUTLER HW JUNCTION	<del> </del> -	<del> </del>	<b>-</b>	<del> </del> -			2						ļ <u>`</u>		3				-1
1	STAG/NESTL OT (300)		В	AN		1	1	16	BU	<u> </u>	1	1 1	1_1	<del>├</del> -		23			1	SITE
18 Mt. HU	E RESERVOIR RESERVOIR (600)	D		AN	1	-	1	10	ΔV	1	l	1	<u> </u>		ļ				<u> </u>	
•	CARIB(1) OT (150) CARIB(2) OT (200)		B B	AN AN		- 1			BU BU			$-\frac{1}{1}$		<del> </del>				·	$\frac{1}{1}$	SITE
	MT. HOPE OT (300)		l B-	T				<u> </u>		f		ļ- <i>^</i> -		<u> </u>	‡:::				†	
	GORDON ST (1) OT (200) GORDON ST (2) OT (200)		- B B	AÑ AÑ		$\frac{1}{1} - \frac{1}{1}$		}	BŪ BŪ		$-\frac{1}{1}$	$\frac{1}{1}$	1	╁	┼・		}		- <del> </del> -	SITE
1	GORDON ST (3) OT (300)	<u> </u>	1 B	ĀÑ	[]	1	1	<u> </u>	ĒŪ	<u> </u>	î		1	ļ :	‡		]		1	SITE
1	BROOM ST OT (200) TO SANTA CRUZ OT (250)		<u>B</u> -	AN AN		$\frac{1}{1} - \frac{1}{1}$		<del> </del>	BŪ BŪ		1	1 1	<u>1</u>	╂	<del> </del>			<u></u>		SITE
19 MALICK	RESERVOIR							8		<u> </u>		<u> </u>				11	1			
	RESERVOIR (750) TO BARATARIA OT (300)	D_		AN AN		1	$-\frac{1}{1}$		AV Bū	1	1	- <u>1</u>	<u>i</u>	<del> </del>	<del> </del>		<del> </del>		† - <sub>1</sub> -	SITE
	SIXTH Av. OT (300)	<u> </u>	B B	AÑ		1	1		₿Ū	ļ	1	1		‡ <u>-</u>	<b>‡</b>	ļ	ļ		1	SITE
20 El. SOC	TO LADY YOUNG AV. OT (450)	-	В	AN AN	╂	1	1	13	BU	<del> </del> -	1	1	1	+	-	49	┼	-	1 -	SITE
EU EL DUCT	RAW WATER (750)	<b> </b>	<b></b>	¥ V	†·	ļ	1	ļ <u></u>	1		ļ	1		1	ļ				ļ	
	CLEAR WATER RESERVOIR BOOSTER SUCTION (900)	¥ ĀP	¥ - B -	ļ	- 1			<del>-</del>		1_1_	 1		· <del> </del> ·	<del> </del>	+		<b>∤</b>		<del> </del>	
	BOOSTER DELIVERY (600)	†	ŢŸ B	¥ AN	<b>†</b>	į		1	BU	ļ	1	1	1 - 1	Ţ	Ī		T		1-1-	CSS
1	DISTRIBUTION (400) EL SOCORRO RD OT (150)	ļ	ŢŢ-B- B-	¥ ĀŅ		$\frac{1}{1} - \frac{1}{1}$	$-\frac{1}{1}$	<del> </del>	BŪ BŪ		$-\frac{1}{1}$	$-\frac{1}{1}$	$\frac{1}{1} - \frac{1}{1}$	<del> </del>	+	-}			$\frac{1}{1}$	SITE
	DON MIGUEL RD OT (150)	1	B	ĀN	1	ĺ			BŪ	ļ	1	1	1 1	Ţ	1			[		SITE
	ELEVENTH ST OT (150) EL SOCORRO B/PUMPS	<del> </del>	B B -	AN AN	ļ	1	- 1		BŪ	<del> </del>	1	1	├ <del>1</del>	<u>6</u>	25		-3	css-	1-1	SITE
21 LAVENT	ILLE	<u> </u>	<u> </u>	1	1	Ι.		2								3	_		Τ.	O.T.
22 BLACK I	TO LAVENTILLE OT (300)	<del> </del> -	В	AN	+	1	1	8	BU	-	1	1-1	1_1	<del> </del>	+	12	+-	<del> </del>	+1	SITE
Er pruon	LIFUIT	·	٠	_L				<u> </u>		1	1.	-		-						

NOTE: AN; ANNUBAR,
AP; AIR PURGE TYPE,
AV; ALTITUDE VALVE,
B; BOURDON TUBE,
BU; BUTTERFLY VALVE, F : FLOAT TYPE,
O : ORIFICE PLATE,
P : PROPELLAR TYPE,
PF: PARSHALL FLUME,
V : VENTURI TUBE, WW ; WATERWORKS, OT ; OFF-TAKE, JCT; JUNCTION, Av : AVENUE, HW : HIGH WAY,

(300); PIPE DIAMETER (MM),
"\*"; EXISTINGS TO BE USED,
"¥"; EXISTINGS (REPLACEMENT PERIPHERALS),
"#"; INSTALLATION OF CONTROL EQUIPMENT, SH ; SHEET, ST; STREET, IC; INTERCONNECTION,
RES; RESERVOIR, BPS; BOOSTER PUMPING STATION,

	BUTTERFLY VALVE, V ; VENT CONE VALVE, RD; ROAD			IT; IN					RENTIAL											
NUMBER &									P H			?	Ï	** *						
NAME OF	NAME OF		S QUIPMEN	TE		n of		nri Ne	INSTALI	ı—–	NIMB			E I Oring		3	F	QUIPME	NT T	O BF
RTU STAT. TO BE	MONITORING POINT		E INSTA	LLED	DAT	A BY	RECOR	DER	EQUIP.	BY C	ENTRA	L SUP	ERVISO	RY SYS	TEM (	CSS)		CONTR		
INSTALLED	2011.1	LEVEL		FLOW	WATER	WATER	FLOW	TOTAL	CONTROL	WATER	WATER	FLOW	VALVE	PUMP	ALARM	TOTAL	p	UMP		LVE
[STEP 2]	51 4011 DIVIDO (4) AT (000)	METER		METER	LEVEL	PRESS			VALVE BU	LEVEL	PRESS	RATE	STATUS	STATUS	ļ		NO.	PLACE		PLACE SITE
	BLACK RIVER (1) OT (300) BLACK RIVER (2) OT (450)		<u>B</u>	AN AN		<del>\</del> -	$-\frac{1}{1}$		BÜ			┟╌╬╌								SITE
	BLACK RIVER (3) OT (525)		B	AN		1	i		BŪ		î	- î	<u>†</u> -							SITE
	TO LADY YOUNG RD OT (300)		В	AÑ		1	1		BU		1	1	1						1	SITE
23 PICTON	NO, 3 RESERVOIR			- ()	L			13		<b> </b>		ļ	ļ			16				
	PICTON #1 RESERVOIR (400)			AN AN	1 2				- <u>AV</u> AV · 2	- 1/2		1								
	PICTON #2 RESERVOIR (750) PICTON #3 RESERVOIR (900)			<u>An</u>	- <u></u>				AV · Z	1		- <del>†</del> -							r1	
	MASALLAN ST OT (100)		В	AN	^-	1	1		BÜ	├ <sup>*</sup> -	1	1	<u>i</u> -						i	SITE
	PRIZAR LANDS ST OT (100)		В	AÑ		1	1		BŪ		1	1	1						1	SITE
	KERR RD OT (100)		В	AN		1	1		BU	ļ	1	<u> 1</u>	1		ļ				1	SITE
24 SERVOL	LIFE CENTER		В	AÑ		<u>_</u>		8	BU	<u> </u>	1	1	<del>                                     </del>	ļ		9	$\vdash$		1	SITE
	BEETHAM DUMP OT (100) SERVOL LIFE C. OT (100)		<u>B</u> -	<u>An</u>		1 - 1	<u>- 1</u> -		BU		1									SITE
	TO LAVENTILLE OT (525)	<b></b> -	B	ĀÑ		1	1		BŪ	†		1	î							ŠITĒ
25 KNAGGS	HILL							15								19				
	RESERVOIR (525)	* D.2		AN	2		- 1		* AV 2	2_		1_					<b>-</b>			o rac
	TO BELMONT OT (300) TO CASCADE OT (600)		<u>B</u> -	AN AN		<u>1</u> -	t		BŪ BŪ			- 1	1 -			<b>-</b> -				SITE SITE
	TO ST CLAIR OT (350)		B	AN		- <del>1</del>	1-†		<u>B</u> Ū		┟╌╬╴	}-÷								ŠITĒ
	WESTERN MAIN ROAD (525)		B	ĀÑ		- î	i		BŪ	† <del></del>	Î	Î	î-							SITE
	FROM SAVANNAH WELLS (300)		B.	ĂN		]	1				1	1								
	BARRACK (750)		В	AN	ļ	1	1				1	1		<u> </u>						
26 NATIONA	L FLOUR MILL	<b>.</b>	В	AN		1	1	2	BU		<del> </del>	1				3				SITE
	NFM OT (100) PORT AUTHORITY (300)		₽-	1 W	f		├ <sup>*</sup> -		<u>p</u> ō			} <sup>1</sup> -								5117
1	POST OFFICE (300)			ļ						†		}								
	NATIONAL STADIUM (300)		1	1	†							1								
27 TUMPUNA	STORAGE LIFT PS				Ĺ.,	ļ :		4				<u> </u>				77	<u> </u>			
	ARENA IMPOUNDING RES.	¥ AP	ļ <i>-</i>	ļ		·				- 1.		}		   <b>-</b> -						
	TUMPUNA WEIR TO/FROM RESERVOIR (1200)	F.	<del> </del>	¥ V-2	¹-		2			1.1.		2					- <b>-</b>			
	RIVER DISCH. VALVE (1200)			<u> </u>	†		- <del></del> -		¥ BU-2				2-	<i></i>	†				2	CARONI
	TUMPUNA S. L. /PUMPS				†				1	† - <i>-</i> -				12	59		6	CARONI		
28 CARONI								7								9				
	RAW WATER	¥ AP	ļ - <b>-</b>	¥ PF	- 1-	ļ	1_			1		1_								
	CLEAR WATER RESERVOIR CARONI NORTH (900)	¥ AP	* B	אג ע	_ 1		1		¥ BŪ	1_	} <u>-</u> -	1	<sub>1</sub> -				٠-			CARONI
1	CARONI SOUTH (1200)		* B	¥ AN	<del> </del>	1			¥ BU		ŀπir	- <del>  -</del> -								CARONI
29 KELLY V			1				<u> </u>	2		<del> </del>	<del>                                     </del>	<del>                                     </del>				3				
	KELLY VILLAGE OT (300)		В	AN		i	1		BU		1	1	1						1	SITE
30 SCALE Y					1	١.	<u>L.</u>	4	211	<u> </u>	ļ.,.	ļ <u>.</u> .	J			6				OTME
]	SCALE YARD OT (300) HINGKING RD OT (300)		<u>B</u> .	AN AN		- <u>1</u>	$-\frac{1}{1}$		<u>Bu</u> Bu	<del> </del>	- <u>1</u>   1	$-\frac{1}{1}$								SITE
31 LAS LO			<u> В</u>	1 44		1	1	4	DU			<del> </del>	<del> </del>			5	<del> </del>		<u> </u>	SIIL
01 1/12 200	RAW WATER (600)		<b>†</b>	¥ 0	-		1	<del></del>		İ		1								ļ
	CLEAR WATER RESERVOIR	D	I	I	1					1										
***************************************	DISTRIBUTION (600)		¥ B	¥Υ		1	1		80		1	1.	1						1	SITE
32 JERNING	HAM JUNCTION TO LAS LOMAS OT (600)		n	AN	<u> </u>	1	<del>  -</del> -	4				-				5	$\vdash$		$\vdash$	
	JERNINGHAM JCT OT (300)		$\frac{1}{B}$	AN		- 1			BŪ	<del> </del>	- 1-	- 1							1	SITË
03 CHAGUAN			<del> </del>	110	<del>                                     </del>	<del> </del>	<del>  -</del>	4			<del> </del>	<del> </del> -	<del>-</del>		<del>                                     </del>	6				0110
	CHAGUANAS OT (300)	1	В	AN	1	1	j		BU		1	1	1		l					SITE
	LANGE PARK OT (300)		В	AN	<u> </u>	1	1		BU		1	1	1		ļ		ļ		1	SITE
34 CARLSE	CLEAR WATER RESERVOIR				1	<b> </b>		5_	ļ		ļ			ļ		7			$\vdash$	
	DISTRIBUTION(1) (200)	<u>F</u> -		ĀÑ	1		i		BŪ	- 1-		1							1	SITĒ
	DISTRIBUTION(2) (250)		B	AN	† <i>-</i>	† - i	- i		BŪ	†	- i-	- 1-			t			<b>-</b> -		ŠITĒ
35 CARAPIC	HAIMA							6								7				
	CARAPICHAIMA OT (200)	ļ	B_	AN	ļ	1	1	ļ	BU	ļ	1	1	1.			ļ <del>-</del>			1	SITE
	TO CARLSEN FIELD OT (300) TO FREEPORT WW OT (300)		- B B	AN AN	<del> </del>	1 1	$-\frac{1}{1}$					$-\frac{1}{1}$	·		<del> </del>	}		L		<del> </del>
36 WARDEN		<del> </del>	D	AN	┼──	+	<del>                                   </del>	6			<del> </del>	<del>                                     </del>	<del> </del>	<b></b> -	<del> </del>	9				
La manni		٠	٠				<b>.</b>	<u></u>				£	1		•	<u>_</u> _	,			·

NOTE: AN; ANNUBAR,
AP; AIR PURGE TYPE,
AV; ALTITUDE VALVE,
B; BOURDON TUBE,
BUTTOR TYPE,
AV; ALTITUDE VALVE,
B; BOURDON TUBE,
B; BOURDON TUBE,
BUTTOR TYPE,
B; BUTTOR TYPE,
B; BUTTOR TYPE,
B; BUTTOR TYPE,
B; BUTTOR TYPE,
B; BUTTOR TYPE,
B; BUTTOR TYPE,
B; BUTTOR TYPE,
B; BUTTOR TYPE,
B; CONTROL FUND TO THE PROPERTY VALVE,
B; CONTROL FUND TO THE PURCHASIAN TO THE PURCHASIAN THE PROPERTY VALVE TO THE PURCHASIAN THE PROPERTY PROPERTY TO THE PURCHASIAN THE

	OURDON TUBE,			ST ; ST RES; RE		IR.	BPS:	BOOST	CONNECT ER PUMP	ING S	TATIO	N,	т,	I III		V,1 U1		I HOL L		
	ONE VALVE, RD; ROAD			IT ; IN				DIFFE	RENTIAL	PRES	SURE	TYPE,								<del></del>
NUMBER &				m 13	-				PН	Λ	S E		<u> </u>	E F	>	3				
NAME OF RTU STAT.	NAME OF	F	QUIPMEN		P	1 R OF	MONIT	YNRING	INSTALL		MIBKR			ORING		<u> </u>	EC	JUIPME	NT TO	) BE
TO BE	MONITORING POINT		E INSTA	LLED	DAT	A BY	RECOR	DER	EQUIP.	BY C	ENTRA	L SUP	ERVISO	RY SYS	TEM (	CSS)		CONTR		
INSTALLED		LEVEL		FLOW	WATER	WATER	FLOW	TOTAL	CONTROL	YATER	WATER	FLOW	VALVE	PUMP	ALARM	TOTAL.	Pl	JMP	VAI	
(STEP 2)		METER	GAUGE		LEVEL	PRESS			VALVE	LEVEL			STATUS	STATUS			NO.	PLACE		PLACE SITE
	WARDEN OFFICE OT (300)		<u>B</u> -	AN AN			$-\frac{1}{1}$		BŲ BŪ		$\frac{1}{1}$									SITE
	COUVA LANE OT (300) POINT LISAS OT (600)		В	AN AN		$-\frac{1}{1}$	- 1		BU			1								ŠĪTĒ
37 TRINGEN	The state of the s			1111				2			-					3				
	TRINGEN II OT (300)		В	AN		1	1		BU		1	1	1						1	SITE
38 CALIFOR	NIA RESERVOIR		Ĭ <u> </u>					2								2	-1			
no mai	RESERVOIR (900)	D	<del></del> -	AN	<u> </u>	ļ	1	2	AV	1		1		<del> </del>	<del> </del>	3				
39 TCI.	TCL OT (300)		В	AN		i	1		BU		1	1	1						1	SITE
10 MARAVEL		<del> </del>				_		2								3				
	MARAVELLA OT (300)		В	AN		1	1		BU		1	1	1				1		1	SITE
41 SAN FER						<u> </u>	ļ .	14	117	<b>.</b>	-	1		ļ <u> </u>	<del> </del>	49	$\vdash$			
		¥ D		AN AN	1 1		- 1		ĀŸ	$-\frac{1}{1}$	}	$\begin{bmatrix} -\frac{1}{1} \\ 1 \end{bmatrix}$	}		╁		} <b> </b>			
	MARRYAT RESERVOIR (600) NAPARIMA RESERVOIR	¥ - D -		<del>M</del>	<u>†</u> - †-		} <b>*-</b>	t		t - i-			·	† <b>-</b>	†					
	BOOSTER SUCTION (900)	† <del>* - * -</del> :	Ϋ́B	¥ ĀÑ	†	[]1	1		[	I	[ ]		[		Ţ					
	BOOSTER DELIVERY (900)		¥ B		Ţ	1	1	Į	* BU		<u> </u>	<u> </u>	1		ļ			ļ		CSS
	ROUND ABOUT(1) OT (300)		B_	AN	ļ	1-1-	- 1-	ļ	BÜ		- <del> </del> -	- <u>1</u> -	<del> </del>  -	ļ ·	<del> </del>				$-\frac{1}{1}$	SITE SITE
	ROUND ABOUT (2) OT (525)	ļ	<u>B</u> -	AN	<del> </del>	$-\frac{1}{1}$	1 1		BŪ BŪ				} <del>{</del> -	<b>+ -</b>	<del> </del>	<b></b>			늮	SITE
	FIRE BRIGADE OT (375) SAN F'DO B/PUMPS		D	<u>w</u>	t	}^-		† <i>-</i>	50	†	¹-	} <sup>*</sup> -	<del>-</del> -	6	25	†	3	CSS	-*-	
42 MOSQUIT				-	┢┈	1	<del>                                     </del>	2								3				
	TO MOSQUITO CR. OT (600)		В	AN		1	1		BU		1_1_	1	1		ļ				1	SITE
43 ST CLEE						ĻŢ	1	4		ļ. —	<del>                                     </del>		1	ļ	<del> </del>	6	<b> </b>			SITE
	ST CLEMENT (1) OT (200)	ļ	<u>B</u> -	AN	ļ	$-\frac{1}{1}$	$-\frac{1}{1}$	- <del> </del>	BU BU	ļ <b>-</b>	<u> </u>	- 1	1		<del> </del>					SITE
14 DAISY	ST CLEMENT (2) OT (250)	<del> </del>	<u>B</u>	AN	├	<del> </del>	<del>  '</del>	2	DU				<del>                                     </del>	-	<del> </del>	3	H		Ĥ	5111
IT DAISI	DAISY OT (400)	<del> </del>	В	AN		ī	1	<del>  -</del>	BU	1	1	1	1						1	SITE
45 MALGRET	OUTE BPS							9						Ţ		64				
İ	BOOSTER SUCTION (900)	ļ	¥ B	¥ V	ļ	1	1_1_	ļ				- 1-	 		ļ					CSS
	BOOSTER DELIVERY (900)	<b> </b> -	¥ B	ĀÑ	ļ	$-\frac{1}{1}$	<del> </del>	·	BŪ BŪ		- 1		├ <del> </del> -		<del> </del>					SITE
	BUEN INTENTO OT (300) TO PRINCESS TOWN OT (300)		P	AN	╁		1	· <del> </del>	BÛ		<del>-</del> -	- 1	<u>                                </u>		† <del></del>					SITE
	TO MALGRETOUTE OT (300)	l	B	ĀN	t	r î	1	†	ΒŪ		1	1	1		İ					SITE
	MALGRETOUTE B/PUMPS													10	41		5	CSS	$\blacksquare$	
46 BROTHER						ļ.,	<u> </u>	δ			ļ.,	ļ.,	ļ.,		<b></b>	9				SITE
	BROTHER ROAD OT (150)	ļ	<u>B</u> -	AN AN	<del> </del>	- 1	1	·}	<u>BU</u> .		- 1	$-\frac{1}{1}$	} <del> </del> -	·	<del> </del>	}				SITE
	TO PIPARO/ARCH OT (250) TO ST JULIAN OT (375)		B-	AN	t	- i	- 1		Bũ		ŀ'n	1-1		<b></b>	†		- ~			SITE
47 TCO BPS		<b> </b>		<u> </u>		Ĺ		5								68				
	BOOSTER SUCTION (900)		¥ B		ļ	1	ļ		ļ <u></u> .	ļ	1.	ļ <u>.</u> -		ļ <b>-</b>	ļ <b>-</b>					000
	BOOSTER DELIVERY (900)	<b> </b>	Ť. ¥. − ¥. −	¥Ψ	<del> </del>	- <u>1</u>	$-\frac{1}{1}$		BŪ BŪ	<b>-</b>	$\frac{1}{1}$	$-\frac{1}{1}$	<u>1</u>	<del> </del>	<del> </del>					CSS SITE
	RIO CLARO OT (300)		B_	MA	<del> </del>	- <sub>-</sub> -	} <del>1</del> -		<u>DU</u>	<del> </del>	<sup>1</sup> -	} - <del>-</del> -	<del>-</del> -	12	49		- <sub>6</sub> -	CSS -		orie.
48 NAVET W	TCO B/PUMPS		<del>                                     </del>		<del>                                     </del>		†	9			<u> </u>		<del>                                     </del>		<u> </u>	9				
I MITTEL TO	HIGH DAM	F	,		1					1					ļ		ļ ļ			
	LOW DAM		ļ	<u>-</u>	1	ļ	ļ.,.	ļ	<b>-</b> -	]			ļ	ļ	<del> </del>	}	<b>├</b>			
	STORAGE LIFT PS (1200)		ļ	AN AN 4	<del> </del>	<del> </del>	- 1	}				- 1/4	}	<del> </del>	<del> </del>					
	RAW WATER (450) CLEAR WATER RESERVOIR	F		1 - 70.4	1	}	4	<b></b> -	}	1			├ <i></i>	† <b>-</b> -	†					
1	DISTRIBUTION (900)	<u> </u>	1	ĀN	<u> </u>		1		<u> </u>			1								
	TOTAL	38	127	160	38	127	160	325	124	38	127	160	113	58	249	745	29	L	113	
			(n)					1	AU C			ĺ						יעסטעז וועסטע	102	QITE
		¥AP 4	¥8 14	MAN 6 AN139					AV 9 PAV 2			[						CARONI CSS	μυΖ : 7	SITE CSS
	= LIST OF ITEMS =			¥0 2					BU106	ĺ							ا " ا	133		CARONI
	Did VI IIDDA	¥D 5	ļ	YPF 2					BU 1							1				-
		F 10		¥V 11	1			1	¥BU 4				<u> </u>							
L	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	1	<u> </u>	Ц	¢CV 2		٠.	<u></u>		<u> </u>		1	<u> </u>	L	L,_	L

Table 21 SUMMARY OF COST ESTIMATE FOR CENTRAL SUPERVISORY SYSTEM (OPTION A)

NAME				9	ASE	I - S T E	P 1							P H	ASEI	- S T E	P 3			
ъ	FORETG	FOREIGN CURRENCY (US\$)	(ssn)			TOCAL CURREN	CY (TTS				FOREIGN	CURRENCY	(rsi)		07	LOCAL CURRENCY	Ë			i
ITEM FACILITIES		SUPPLY	T SOUR	9 C S	CIVIL	WORKS	Total Park	SUPPLY	TOTAL	TOTAL	NI, AUVALGO	TNOTTONIENT	Titrai	E-W/N-V 24	CIVIL	L WORKS	į.	Silbpity 1	TYTEAL	TOTAL GISS)
EQUIPMENT	PRIMARY EQUIPMENT	PRIMARY INSTRUMENT	(US\$)	CHAMBER	WORKS	CHAMBER WORKS LATION (C	IVIL	PORTATION	SE SE		COULDWENT	-ATION	(SS)		WORKS L	$\neg$ r	(CIVIL) PO	PORTATION	Ê	
[1] CONSTRUCTION WORKS							†	+			-			-	1	+		$\frac{1}{1}$	+	T
CSS]	- 4 VOY	1 8 20 2 1	1 136 6	7 4 38 4		1 004 9 1	7 443 3	- 201 6	2 644 3	2. 986. 6		1	1	11			+	-		
CONTROL VALVE	ř.			; ; ; ;	-		-			1	2, 156.4	3, 779, 8	5, 936, 2	1, 396, 5	1	2, 522, 9 3,	919.4	504.6	4. 424. 0	6. 977. 1
LEVEL METER	32.5	380.9	413, 4		; - ;	175.7	175.7	35.1	210.8	463.0		1					1		1	1
PRESSURE GAUGE	! !	988.9	988.9			420.3	420.3	84.1	504.3	1, 107, 6			1 16		-7	10	6		٠,	
CSS's CENTRAL EQUIP	1						1			1 1		2, 001. g	2110	 	2000	7 0 705	80.08	18,00		736.9
REGIUNAL OFFICE	1 1		: !	   :				<del> </del>				219.1	19	· -		93.1	93.1	18.5	:!	245.4
RTU STATION			1		; -	-						(C)	11, 832, 0		2, 219, 5,75	5, 028, 6 7	7 248. 1 11	. 005. 7 ]	100	13, 774, 1
BOOSTER P/S												226. 7 2	225.7			86.3	36, 3	21.2	1.5	253.9
SUB-TOTAL	526.7	3, 240.0	3, 766. 7	1, 438. 4		1, 600.8	3, 039. 3	320.2	3, 359. 4	4, 557. 1	2, 156. 4	22, 380. 3	24, 536. 7	338.5	2, 604.9	9, 733, 4 13	13, 734.8 1	1, 957. 9	15, 702, 7	28, 231, 5
DISTRICT OFFICE		119 0	119.0			;		2.2	2.2	112.5				1		1				
C & Infalled		7777	À			1	-				-	-		-	-	-				
SUB-TOTAL	!	112.0	112.0		1	ļ		2.2	2.2	112.5			l	1			!			:
TOTAL	526.7	3, 352.0	3, 878. 7	1, 438. 4		1, 500.8	3, 039, 3	322. 4	3, 361. 7	4, 555.7	2, 156. 4	22, 380, 3	24, 536. 7	1, 395. 5	2, 504. 9	9, 733. 4	13, 734. 8	1, 967. 9	15, 702. 7	28, 231, 5
[2] ENGINEERING SERVICES	!		489. 4			1	1	1	382. 5	579, 4			2, 823. 9		1	į	i	!	1, 788. 4	3, 244. 7
TOTAL OF ITEMS [1] & [2]	526.7	3, 352.0	4, 368. 1	1, 438. 4		1, 500.8	3, 039. 3	322. 4	3, 744. 3	5, 249. 1	2, 156. 4	22, 380. 3	27, 360. 6	1, 396, 5	2, 604. 3	9, 733.4	13, 734, 8	1, 367. 9	17, 491. 1	31, 476. 2
[3] TAX (VAT)			-						3, 346. 3	787. 4									20, 066. 1	4, 721. 4
[4] CONTINGENCY			655.2		. :				561.6	787. 4			4, 104. 1			1		1	2, 623. 7	4, 721. 4
[5] ADMINISTRATION			1		1			1.0	111.5	26.2	1	.	1			1	1	ŀ	668.9	157. 4
GRAND-TOTAL	526.7	3,352.0	5, 023. 3	1, 438.4	ì	1, 600.8	3, 039, 3	322. 4	7, 763.8	6, 850. 1	2, 156. 4	22, 380. 3	31, 464.7	1, 336, 5	2, 604, 9	9, 733.4	13, 734.8	1, 367. 9	40, 843. 7	41, 078. 4
NOTE: EQUIP. : EQUIPMENT,		PAS; PUMPING STATION	G STATION,		-W/C-V: 1	F-M/C-V; FLOW METER		AND CONTROL VALVE.		VAT: VALUE ADDED TAX	ADDED TAX,	<u>.</u>	EXCHANGE RATES; 1 US\$	TES; 1 USS	= ¥ 135	AND 1 USS	= TTS 4.25,	25,		

SUMMARY OF COST ESTIMATE FOR CENTRAL SUPERVOSORY SYSTEM (OPTION B) Table 22

_	NAME					PHAS	. T			   			æ	EPLAC	E 20 25 17	0.00	7 0 5	PHAS			
	50	FOREIG	FOREIGN CURRENCY (US\$)	( <b>\$</b> Sn)		1	DOOT COURSE	NCY (TTS			, ,	FOREIG	באכל	(88)		i i	E .	RRENCY (TTS			
	FACILITIES AND EASTERNEY	PRIMARY I	PRIMARY INSTRUMENT	TOTAL	F-M/C-V	F-M/C-V BUILDING INSTAL SI	INSTAL- B	IB-TOTAL	TRANS-	TOTAL	(SSD)	PRIMARY II	PRIMARY INSTRUMENT;	TOTAL	₩-3/%-3	DIVIDING	INSTAL- E	SUB-TOTAL	TRANS-	TOTAL	(RSA)
Ξ	RKS		NOT IS	(000)		- t	5	T .	CULTURA			T COLL	NOT IN	PCO	, and the second	7			OUT WITH	(CII)	
-		-				•						   	-		} -	<u> </u>			-		
[tw]E	FLOW METER	492	1,329,87	1, 824, 0	1,438,4		72.5	213.6	155.0	2, 368, 7	, 2, 3 3, 3 3, 1, 3		1, 329, 87	1, 329, 8	1 1 1 1		565.2	565.2	0.0	2,0	1, 489, 4
ت: 	EVEL METER	2,5 2,5 2,0	279.6	312.0	6. 6. 1. 1.		132.8	132.6	26.5	159.1	200		279.6	279.			118.8	nico n⊹		5.5	
- A	RESSURE GAUGE		556.7	566.7			240.8	240.8	48.2	289, 0	63.1	-	+ -1	566.7		-	240.8	100		289.0	3
	SS's CENTRAL EQUIP	,	5,861.9	5,861.9		385.3	1, 902, 6	287.9	380	2, 558, 4	6, 489 7			3, 486, 9			1.481.9	; ; ;	****	16.51	3, 905, 3
os jā	REGIONAL OFFICE	} <u>.</u>	211.6	211.6			88	50.0	80,0	107, 9	236		7.3	7,7			134.9	ᆎ	27.0	8	33
	TU STATION		11.832.0	11, 832, 0		2. 219. 5	5.028.6	246.1	1.005.7	8. 253.8	13, 774, 1	 	9 973.3	100 S			238.7		847.7	~1~	11 170 1
	BOOSTER P/S SPARE PARTS		226.7	225. 7		66.	96.3	. 36.	19.3	115,6	253.9		1 8	249.3	}-}- 			<del>                                     </del>	21.2	21.2	1 2
L 	SUB-TOTAL	2, 683, 1	24, 556. 3	27, 239. 4	2, 834. 9	2, 604. 9 ju	10, 882, 1	16, 321. 9	2, 197. 6	18, 519, 5	31, 596. 9		17, 663. 1	17, 663. 1		1	7, 400. 3	7, 400. 9	1, 501. 4		19, 757.8
91	FLOW METER												1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				1				
:L 	מכני וווידוריו						1		1			1		1	-}		1	1	1		
	SUB-TOTAL	]			]		-	-		!				-	1	!			:		
	TOTAL	2, 683. 1	24, 558. 3	27, 239. 4	2, 834. 9	2, 504.9 3	10, 882, 1	6, 321. 9	2, 197. 8	18, 519, 5	31, 596. 9		17, 563. 1	17, 663. 1	1 .		7, 400. 9	7, 400. 9	1, 501. 4	8, 902. 2	19, 757.8
[2]	ENGINEERING SERVICES	<u>;</u>		3, 437.0		-				2, 109.3	3, 933. 3							-	-		
TOTAL	. OF ITEMS [1] & [2]	2, 683. 1	24, 556. 3	30, 676. 4	2, 834. 9	2, 604.9 1	10, 882. 1	16, 321. 9	2, 197. 6	20, 628. 7	35, 530. 2		17, 663. 1	17, 863. 1	<b>!</b>		7, 400. 9	7, 400. 9	1, 501. 4	8, 902. 2	18, 757. 8
[3] T	[3] TAX (VAT)	l ; ;	[		1				-	22, 650, 5	5, 329, 5				-			-	-	12, 595. 5	2, 963, 7
25	CONTINGENCY	,		4, 601. 5	1			i		3, 094. 3	5, 329, 5	1		2, 549, 5	-		-			1, 335, 3	2, 963. 7
[5] Al	ADMINISTRATION	}				1	1	!		755.0	177.7	}	\		;		i	;		413, 9	98, 8
**************************************	GRAND-TOTAL	2, 583. 1	24, 555. 3	35, 277. 9	2, 834. 9	2, 604. 9 10, 882. 1	10, 882, 1	16, 321. 9	2, 197. 6	47, 128. 6	46, 367.0		17, 663. 1	20, 312. 6			7, 400. 3	7, 400. 9	1, 501. 4	23, 253.0	25, 782, 9
NOTE:	NOTE: EQUIP. : EQUIPMENT,		P/S; PUMPING STATION	STATION.		F-M/C-V; FLOW METER	LOW METER	AND	CONTROL VALVE		VAT; VALUE A	ADDED TAX,	ய	EXCHANGE RATES; 1 US\$	es; 1 US\$	≈ ¥ 135	AND 1 USS	= TI\$ 4, 25.	25.		

Table 23 NET PRESENT VALUE FOR OPTIONS A AND B

			The state of the s
1, 000	TOTAL		25 25 25 25 25 25 25 25 25 25 25 25 25 2
UNII: IN A USS I, UUU	2010		1   1   1   1   1   1   1   1   1   1
	2003	3	7, 349 1, 102 1,
	2008	REPLACEMENT OF STEP	
***************************************	2002	REPLACE	
	2008		
	2002		1,034 1,403 1,103
	2004	STEP 1	1, 034 1, 40 1,034 1, 40 1,55 2,1 1,349 1,83 1,239 1,75 1,239 1,75 10,775 15,00 10,775 15,00
	2003	REPLACEMENT OF STEP	1, 034 1,
	2002	REPLACE	REPLACEN
-	2001		
	2000		10.083 10
-	1999	283	11. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
-	1998	- STEP	1.082 1.082 1.082 1.687 1.687 1.411 1.411 1.614
	1937	PHASE I	411 11 12 12 13 14 14 14 14 14 14 14 14 14 14 14 14 14
	1996		
	1995	-	2, 688 4,322 1,944 4,322 1,946
	1994	- STEP 1	1, 931 1, 107 1,
	1993	PHASE I -	252 299 299 299 251 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	1992	E.	100 100 11 100 11 100 100 100 100 100 1
	DESCRIPTION YEAR	OPTION A	CONSTRUCTION   CONSTRUCTION   CONTINUE   C

NOTE: EXCHANGE RATES; 1 US\$ = TT\$ 4.25 AND 1 US\$ = ¥ 135, %; DISCOUNT RATE

Table 24 ECONOMIC BENEFIT AND COST STREAM (OPTION-A)

						······									<del></del> ,		<del></del>			т						<del></del>
1\$ 1,000	C)		-42,057	-45, 541	-58, 085	-40, 556	10, 572	15, 346	13, 537	-29, 906	-8 88 88	63, 239	53, 128	56, 253	51,006	49, 138	73, 797	67, 406	57, 406	39, 123	26, 751	73, 797	56, 253	56, 253	136, 403	
AFREFIT &	*	<u>B</u>	0	0	0	24, 686	31,223	37, 955	38, 636	38, 636	59, 489	68,715	74, 148	77,273	77, 273	77,273	77, 273	77,273	77, 273	77,273	77, 273	77, 273	77, 273	77, 273	77, 273	
TOTAL	N 20	[0]	42, 057	45, 541	56, 085	65, 242	20,651	22, 609	25,099	68, 542	58, 385	3, 476	21, 020	21,020	26, 264	28, 135	3,475	9.867	9,887	38, 150	50, 522	3, 476	21,020	21,020	-59, 130	
	E E	TOTAL	17, 544	17, 544	17, 544	17, 544	315	915	315	915	318	915	18, 459	18, 459	18, 459	18, 459	915	915	915	516	915	315	18, 459	18,459	-6, 268	
TON	PECTAIN	VALUE	0	0	0	0		0	0	0	<b>C</b>	0	0				0	0	0	0	0	0	0	0	-24, 727	
THOTALLAT	- 1	ಕ	0	0	0		915	915	915	333	315	915	915	915	515	915	915	5	915	915	915	915	915	915	915	
METER	DEDIACE-	MENT	0	0	0	0	0	0	0	0	0	0	17,544	17, 544	17,544	17, 544	0	0	0		0	0	17.544	17, 544	17,544	122, 808
	INITIA	Ę	17, 544	17.544	17, 544	17, 544	0	0	0		0	0	_0	10	10	0	0	10	0	0	0	0		1	0	70, 176
	-di E	TOTAL	23, 647	25, 035	17, 298	18, 379	19, 202	19, 202	19, 202	19, 202	823	823	823	823	823	823	823	7, 214	7.214	823	823	823	823	823	-5, 568	
	DECTNIAL	VALUE	0	10	10	0			0	0	0	0	0	0		0	-0	0	0	0	0	10		1	-6, 391	
MOLLEGIST	- 100 m	# &	0	10	10	10	823	823	823	823	823	823	823	823	823	823	823	823	823	823	823	823	823	873	823	
·		MENT	0	0	10	0	0	0	0	0	0		0	0	0	10	0	6.391	6.391			100		1		12, 782
			23, 647	26.035	17, 298	18, 379	18, 379	18, 379	18, 379	18, 379	0	0	0	1	1	10	10	10	0	0		10	1	1	0	158, 875
	1	TOTAL	99	1.962	21.243	29, 319	534	2.492	4, 982	48, 425	66.647	1, 738	1.738	1.738	6.982	8.853	7.38	1.738	1.738	36, 412	48. 784	738	738	1739	-47, 294	
	191011010	VALUE	c	10	10	0	10	0	10	10	0	10.	10	210	100	+0	10	-0	0	10		+	+ C	1	-49,032	
	200	왕( ) (구)	G	10	+0	710	534	534	534	534	534	1, 738	738	1,738	1.738	738	738	1,738	738	1.738	1,738	1,738	738	738	1,738	
	10.10	FNT-	c	+ 0 						10	0	10	1	10	5 244	7.115	10		1	34. 674	47 046	100	1 1 1 1 1 1	1	1 1 1	94, 080
		INITIAL NAVESTMENT	886	1 962		29 319	0	1.958	4.448	47.891	56, 113	10		7-0					+0	10		:	100	10	10	173, 800
f	_	YEAR E	u_	1993	1007	1995	986	1997	1998	1999	2000	2001	2002	2013	2002	2002	2006	2002	2008	2009	2010 T	115	1000	1000	222	

Table 25 FINANCIAL CASH FLOW (OPTION-A)

			::	*	65	14	m	9	انتاً! اسا	5	8	63	1,7	7	1	2	3	39	55	96	တ္တ	£3	17	17	2	فأد ساريو بيوس
	8 5		-47, 45	-47, 35	-58, 26	-55, 17	5,5	-4,0	-6,33	40.4	36, 50	8	17, 9,	17.92	12,5	5	36.4	29.7	29 7	Š	-12.0	36.4	17.3	17.9	119, 5	
BENEFIT		<u>@</u>	0	Ö	0	12, 598	15, 933	19, 369	19, 717	30, 358	34, 045	38, 487	40,081	40,081	40,081	40,081	40,081	40,081	40,081	40,081	40,081	40,081	40,081	40,081	40,081	
TOTAL	COSTS	<u> </u>	47, 453	47, 354	58, 269	67,772	21, 446	23, 465	26,032	70, 818	70, 553	3, 638	22, 134	22, 134	27,540	29, 470	3, 638	10, 322	10, 322	39, 385	52, 139	3, 638	22, 134	22, 134	-79, 489	
		TOTAL	18,496	18, 495	18, 496	18, 496	972	972	972	972	972	972	19, 468	19, 468	19, 468	19, 458	972	972	972	972	972	972	19, 468	19, 468	-24, 922	
ATION	RESIDIAL	VALUE	0	0	0	0	0	0	0		Ö	0	0	0	0	0	0	0	0	0	0	0	0	0	-44, 390	
INSTAL	) 38 (I		0	0	0	1	972	972	972	972	972	972	972	972	372	972	972	972	972	972	972	972	972	972	872	
METER	REPLACE-	MENT	0	0	0	0	0	0	0	0	0	0	18, 496	18, 496	18, 495	18,496	0	0		0	0	0	18 496	18, 496	18, 496	129, 472
	INITIAL	INVESTMENT	18, 496	18.496	18 496	18, 496	0	0	0	1	0	0	0	0	0		0	0	0	0	0	0	0	0	0	73,984
	5	TOTAL	28, 064	26, 835	17.873	19, 050	19, 924	19, 924	19,924	19,924	874	874	874	874	874	874	874	7,558	7,558	874	874	874	874	874	-5,810	
	RESIDUAL	VALUE	0	0	0	0	0	0	0	0			0	0		0	0	0		0	0	0	0	0	-6, 684	
REDUCTION	0 % M		0	0	0	0	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874	874	
LEAKAGE I		MENT	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	5, 684	6, 584	0	0	0	0	0	0	13, 368
	INITIAL	THEN		26.835	17 873	19,050	19,050	19,050	19,050	19,050	0	0	0	0		0	1	<u> </u>	0	0	0	0	0	0	0	168, 022
	-SUB-	TOTAL	893	2.023	21, 900	30, 226	550	2,569	5, 136	49, 922	68,707	1.792	1.792	1,792	7.198	9.128	1.792	1.792	1,792	37,539	50 293	1, 792	1, 792	1.792	-48, 757	
	RESIDUAL	VALUE	0	0	0	0	0	0	0	0	0,	0	0	0	101	1	0	0	0		0	0	0	0	-50, 549	
CSS	05		0	0	0	0	550	550	2099	550	550	1.792	1.792	1.792	[1.792]	[1,792]	1.792	1.792	1.792	1,792	1,792	1.792	1, 792	1, 792	1, 792	
	REPLACE-	MENT	0	0	1010	0	10	0			0		0	101	ıĸ	•	0	ŧ.	0	35,747	48,501	0	(0)	0 ::	0	96, 989
	INITIAL	INVESTMENT	893	2.023	21.900	30, 226	0	2.019	4, 586	49, 372	68, 157	0	0	10	1			ŀ			1	0	0	0	00	179, 176
	YEAR T		1892	1993	1994	1995	1996	1997	1998	1993	2000	2001	2002	203	202	1 500	2006	2007	2003	2009	2010	2011	2012	2013	2014	

