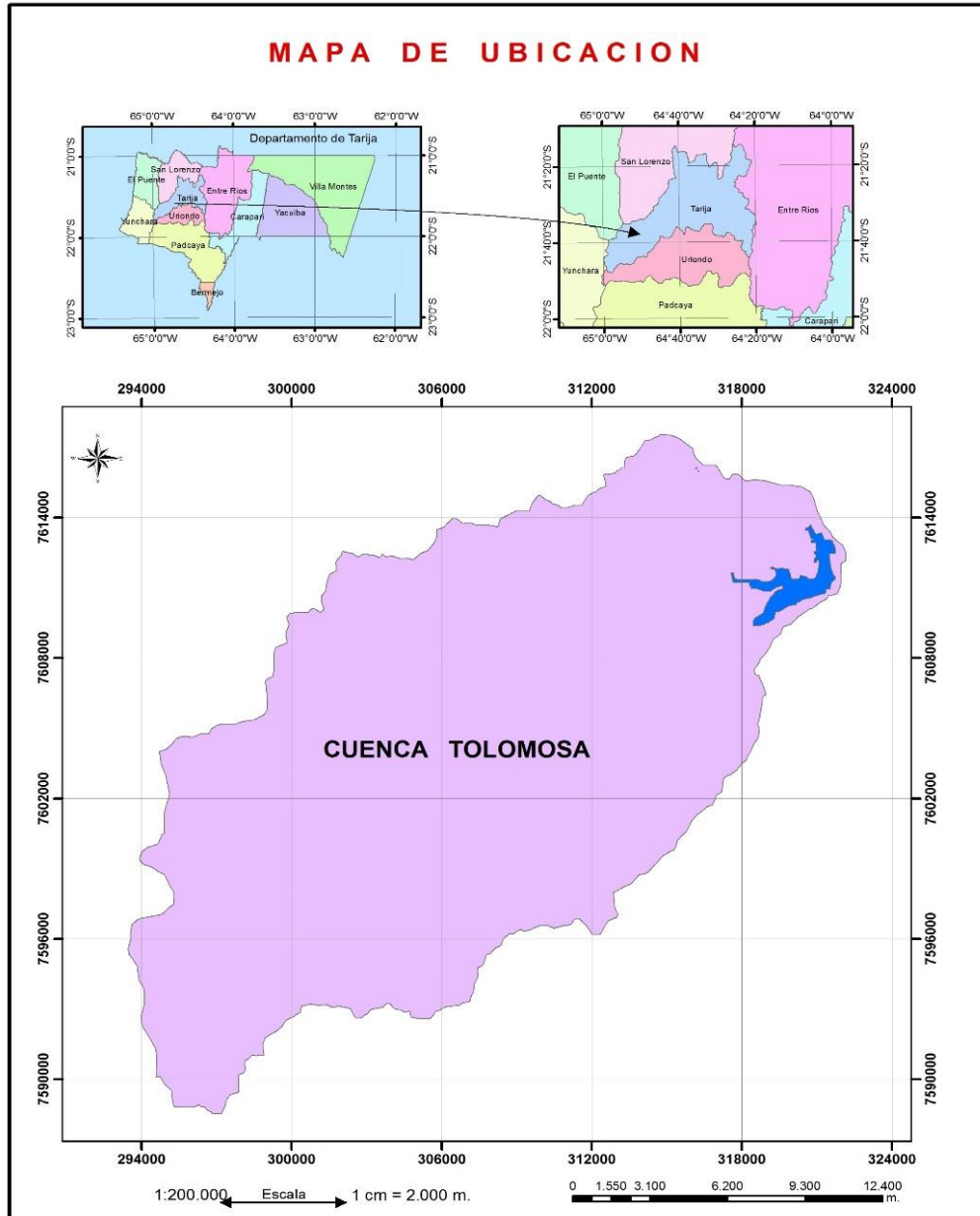
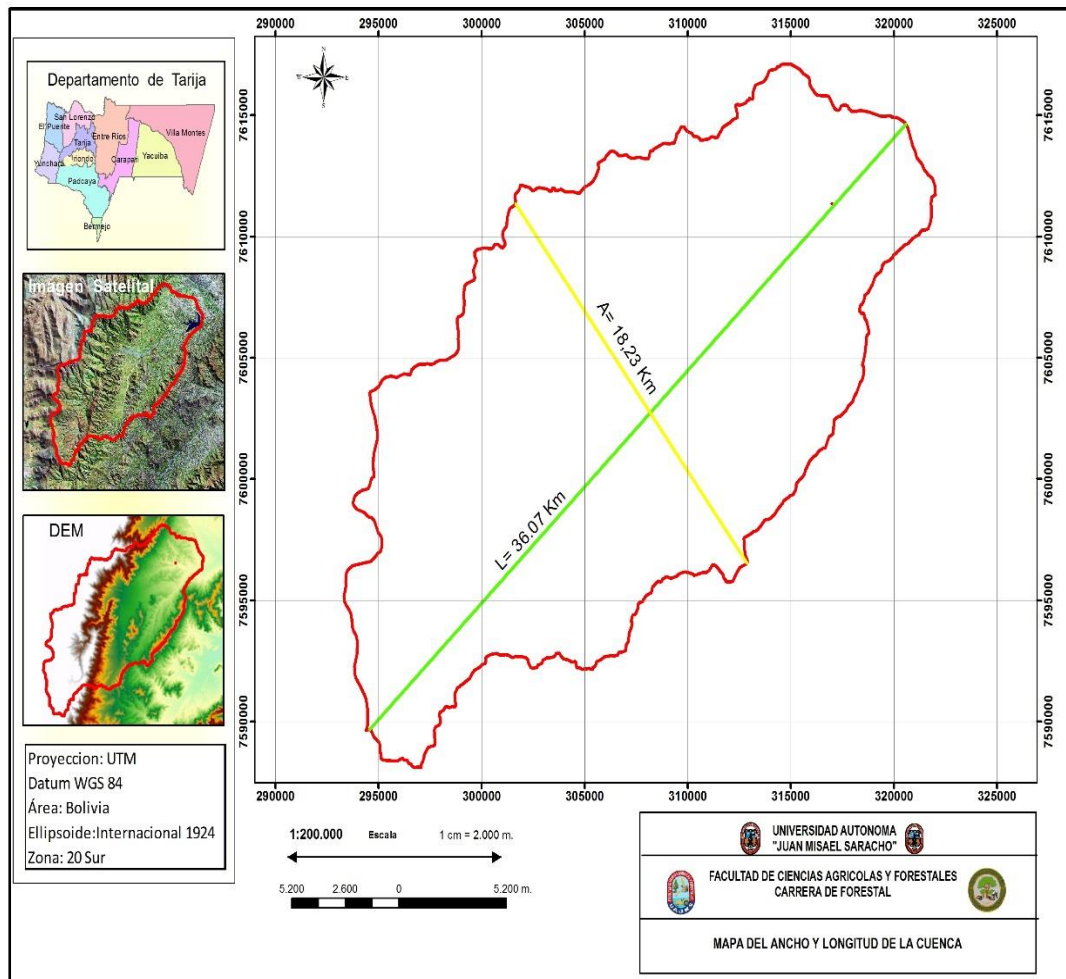


ANEXO "A"

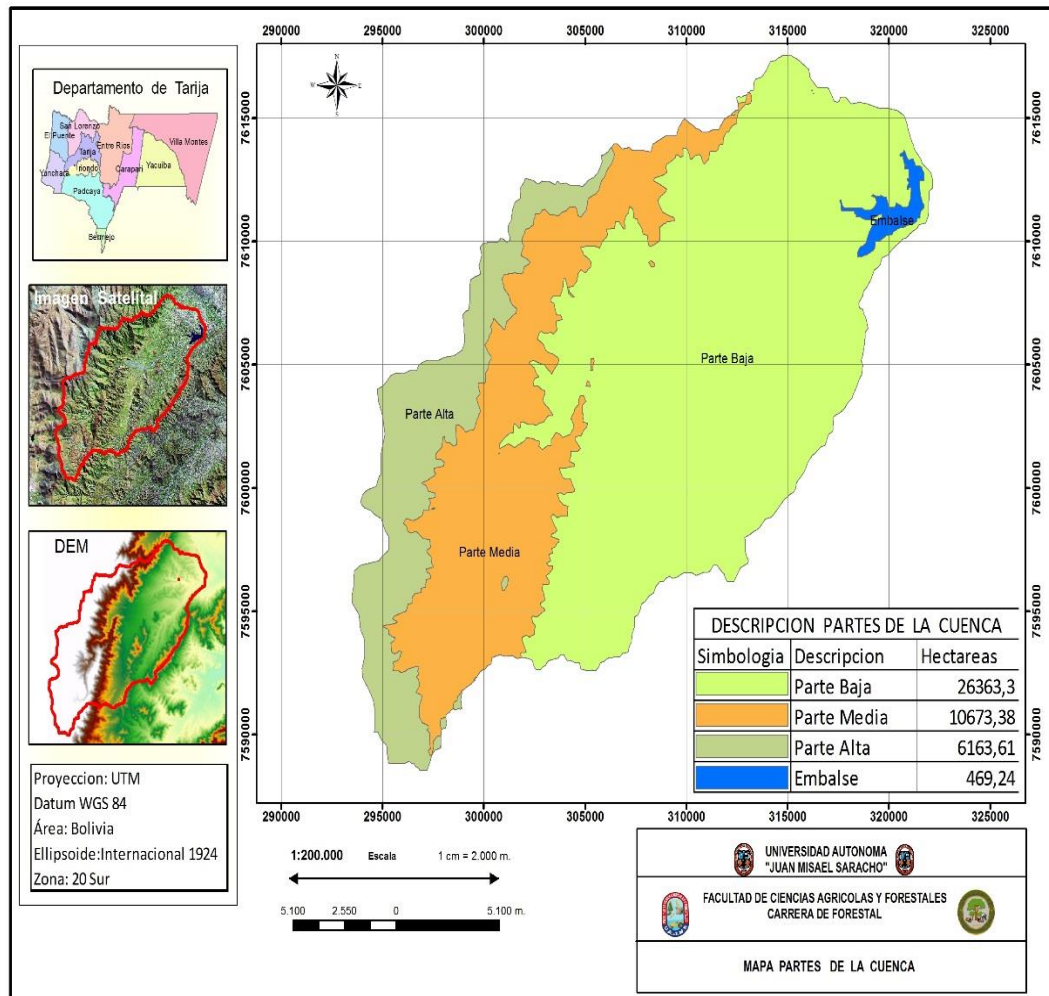
MAPA N° 1 UBICACIÓN DE LA CUENCA



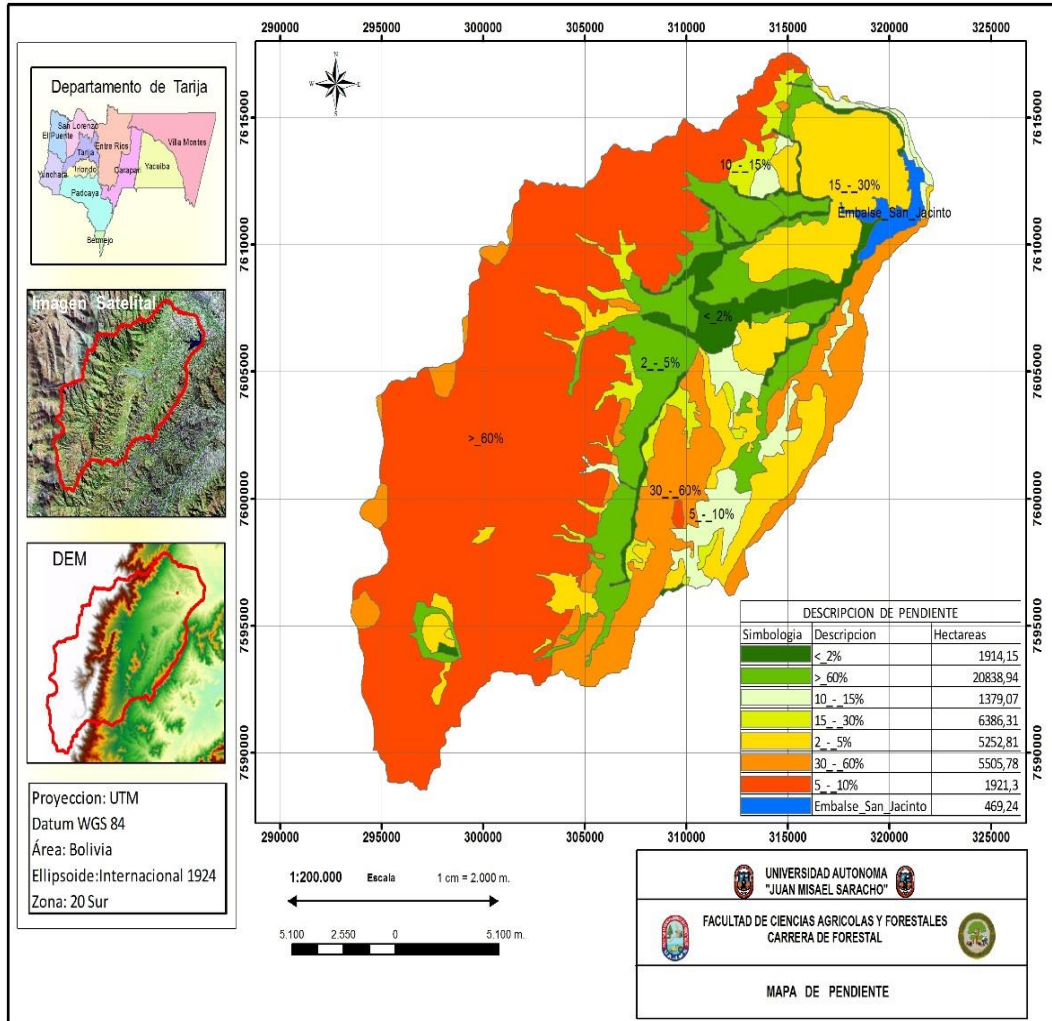
MAPA N° 2 ANCHO Y LONGITUD DE LA CUENCA



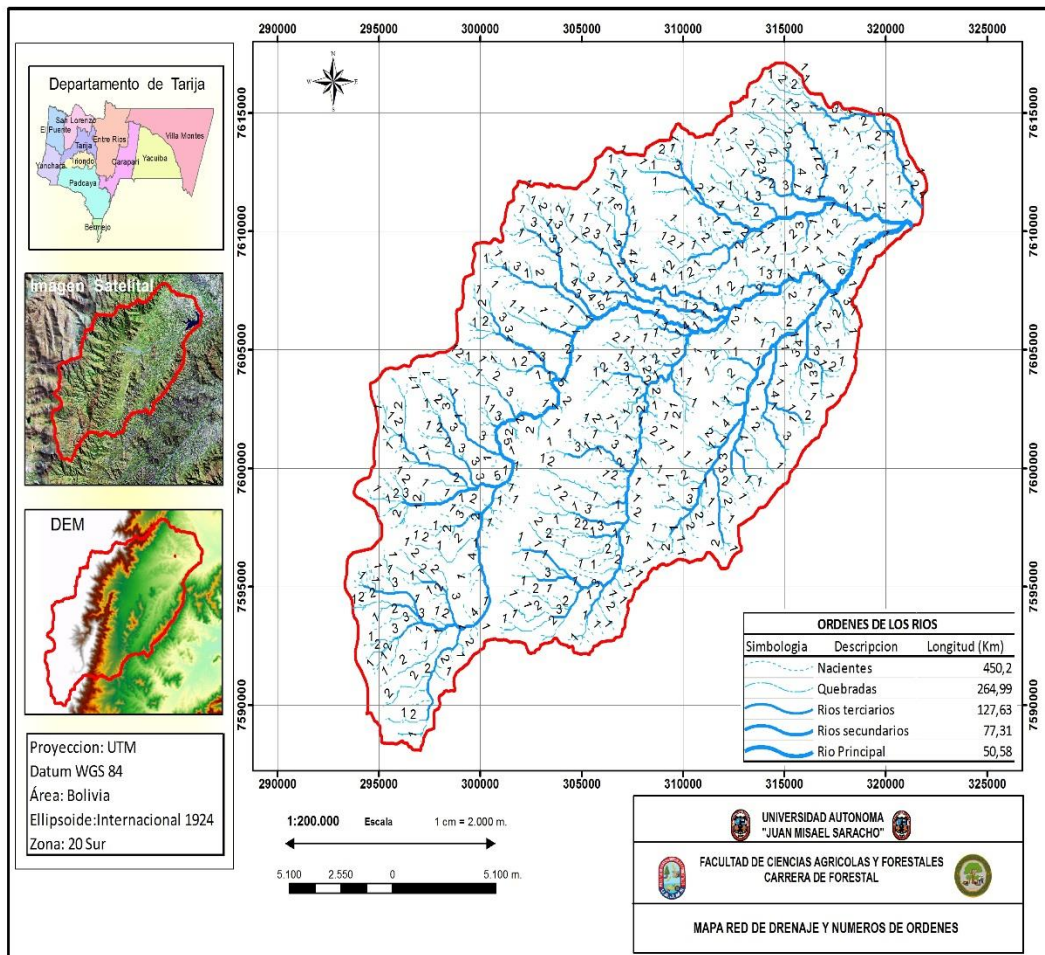
MAPA N° 3 PARTES DE LA CUENCA



MAPA N° 4 PENDIENTES DE LA CUENCA



MAPA N° 5 RED DE DRENAJE Y NÚMERO DE ÓRDENES

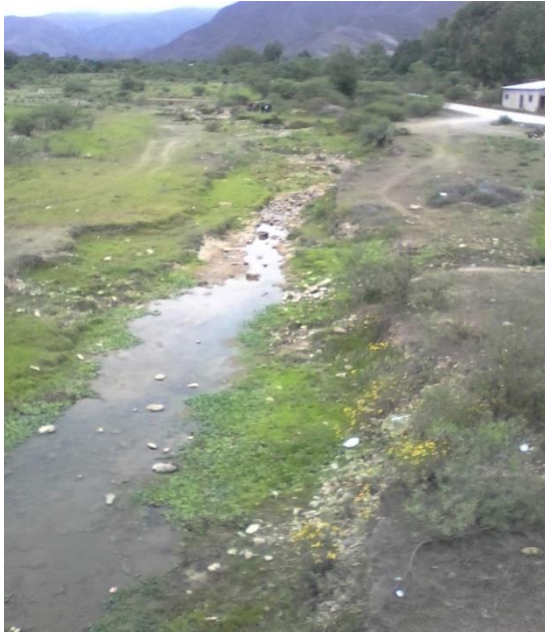


ANEXO "B"



Vista parcial de las subcuencas del río Pinos y del río Sola

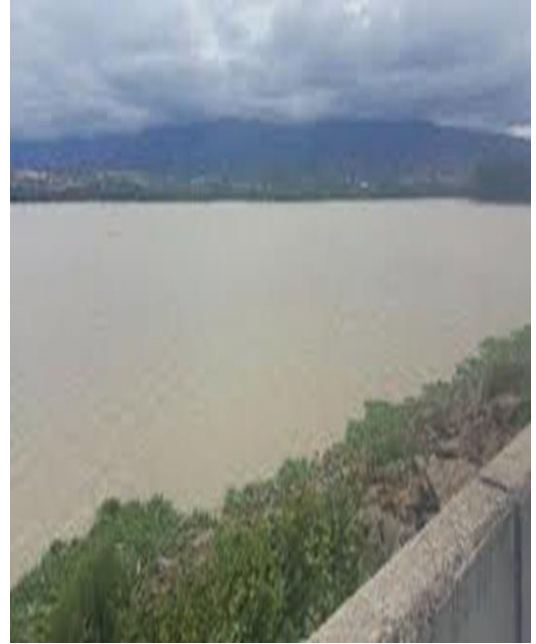
Vista parcial del río San Andrés



Vista parcial de la cuenca del río Tolomosa



Obras de protección en deterioro



Vista parcial de la represa San Jacinto.

ANEXO “C”

ANEXO C1 Datos de las precipitaciones máximas en 24 horas de la estación de San Andrés.

Año	Mes	P max.
1976	DIC.	25,5
1977	MAR.	45,0
1978	FEB.	54,5
1979	DIC.	106,5
1980	FEB.	108,5
1981	NOV.	81,0
1982	NOV.	50,7
1983	OCT.	40,0
1984	DIC.	64,0
1985	ENE.	70,1
1986	DIC.	50,1
1987	FEB.	50,7
1988	ENE.	70,2
1989	NOV.	70,6
1990	ENE.	65,2
1991	DIC.	67,0
1992	DIC.	60,8
1993	MAR.	78,0
1994	ENE.	88,0
1995	MAR.	83,3
1996	MAR.	98,0
1997	MAR.	50,5
1998	DIC.	51,2
1999	MAR.	61,8
2000	DIC.	86,5
2001	ENE	87,7
2002	OCT	150,3
2003	MAR	52,0
2004	DIC.	47,3
2005	NOV	62,0
2006	ENE	57,0
2007	MAR	72,0
2008	DIC.	67,0
2009	DIC.	70,0
2010	FEB	81,0
2011	DIC.	64,5
2012	ENE	70,5
2013	DIC.	70,3
2014	ENE.	54,5
MEDIA		150,3

Año	P máx 24 hr (mm)	i24 (mm/hr)	Intensidades Históricas (mm/hr)																		
			Duración de la lluvia, en minutos																		
			5	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
1976	25,5	1,063	18,031	9,016	6,375	5,205	4,508	4,032	3,681	3,408	3,188	3,005	2,851	2,718	2,603	2,500	2,410	2,328	2,254	2,187	2,125
1977	45,0	1,875	31,820	15,910	11,25	9,186	7,955	7,115	6,495	6,013	5,625	5,303	5,031	4,797	4,593	4,413	4,252	4,108	3,977	3,859	3,750
1978	54,5	2,271	38,537	19,269	13,625	11,125	9,634	8,617	7,866	7,283	6,813	6,423	6,093	5,810	5,562	5,344	5,150	4,975	4,817	4,673	4,542
1979	106,5	4,438	75,307	37,653	26,625	21,739	18,827	16,839	15,372	14,232	13,313	12,551	11,907	11,353	10,870	10,443	10,063	9,722	9,413	9,132	8,875
1980	108,5	4,521	76,721	38,361	27,125	22,147	19,180	17,155	15,661	14,499	13,563	12,787	12,131	11,566	11,074	10,639	10,252	9,905	9,590	9,304	9,042
1981	81,0	3,375	57,276	28,638	20,25	16,534	14,319	12,807	11,691	10,824	10,125	9,546	9,056	8,635	8,267	7,943	7,654	7,394	7,159	6,946	6,750
1982	50,7	2,113	35,850	17,925	12,675	10,349	8,963	8,016	7,318	6,775	6,338	5,975	5,668	5,405	5,175	4,972	4,791	4,628	4,481	4,347	4,225
1983	40,0	1,667	28,284	14,142	10	8,165	7,071	6,325	5,774	5,345	5,000	4,714	4,472	4,264	4,082	3,922	3,780	3,651	3,536	3,430	3,333
1984	64,0	2,667	45,255	22,627	16	13,064	11,314	10,119	9,238	8,552	8,000	7,542	7,155	6,822	6,532	6,276	6,047	5,842	5,657	5,488	5,333
1985	70,1	2,921	49,568	24,784	17,525	14,309	12,392	11,084	10,118	9,368	8,763	8,261	7,837	7,473	7,155	6,874	6,624	6,399	6,196	6,011	5,842
1986	50,1	2,088	35,426	17,713	12,525	10,227	8,857	7,922	7,231	6,695	6,263	5,904	5,601	5,341	5,113	4,913	4,734	4,573	4,428	4,296	4,175
1987	50,7	2,113	35,850	17,925	12,675	10,349	8,963	8,016	7,318	6,775	6,338	5,975	5,668	5,405	5,175	4,972	4,791	4,628	4,481	4,347	4,225
1988	70,2	2,925	49,639	24,819	17,55	14,330	12,410	11,100	10,132	9,381	8,775	8,273	7,849	7,483	7,165	6,884	6,633	6,408	6,205	6,020	5,850
1989	70,6	2,942	49,922	24,961	17,65	14,411	12,480	11,163	10,190	9,434	8,825	8,320	7,893	7,526	7,206	6,923	6,671	6,445	6,240	6,054	5,883
1990	65,2	2,717	46,103	23,052	16,3	13,309	11,526	10,309	9,411	8,713	8,150	7,684	7,290	6,950	6,654	6,393	6,161	5,952	5,763	5,591	5,433
1991	67,0	2,792	47,376	23,688	16,75	13,676	11,844	10,594	9,671	8,953	8,375	7,896	7,491	7,142	6,838	6,570	6,331	6,116	5,922	5,745	5,583
1992	60,8	2,533	42,992	21,496	15,2	12,411	10,748	9,613	8,776	8,125	7,600	7,165	6,798	6,481	6,205	5,962	5,745	5,550	5,374	5,214	5,067
1993	78,0	3,250	55,154	27,577	19,5	15,922	13,789	12,333	11,258	10,423	9,750	9,192	8,721	8,315	7,961	7,649	7,370	7,120	6,894	6,688	6,500
1994	88,0	3,667	62,225	31,113	22	17,963	15,556	13,914	12,702	11,759	11,000	10,371	9,839	9,381	8,981	8,629	8,315	8,033	7,778	7,546	7,333
1995	83,3	3,471	58,902	29,451	20,825	17,004	14,725	13,171	12,023	11,131	10,413	9,817	9,313	8,880	8,502	8,168	7,871	7,604	7,363	7,143	6,942
1996	98,0	4,083	69,296	34,648	24,5	20,004	17,324	15,495	14,145	13,096	12,250	11,549	10,957	10,447	10,002	9,610	9,260	8,946	8,662	8,403	8,167
1997	50,5	2,104	35,709	17,854	12,625	10,308	8,927	7,985	7,289	6,748	6,313	5,951	5,646	5,383	5,154	4,952	4,772	4,610	4,464	4,330	4,208
1998	51,2	2,133	36,204	18,102	12,8	10,451	9,051	8,095	7,390	6,842	6,400	6,034	5,724	5,458	5,226	5,021	4,838	4,674	4,525	4,390	4,267
1999	61,8	2,575	43,699	21,850	15,45	12,615	10,925	9,771	8,920	8,258	7,725	7,283	6,909	6,588	6,307	6,060	5,840	5,642	5,462	5,299	5,150
2000	86,5	3,604	61,165	30,582	21,625	17,657	15,291	13,677	12,485	11,559	10,813	10,194	9,671	9,221	8,828	8,482	8,173	7,896	7,646	7,417	7,208
2001	87,7	3,654	62,013	31,007	21,925	17,902	15,503	13,867	12,658	11,719	10,963	10,336	9,805	9,349	8,951	8,600	8,287	8,006	7,752	7,520	7,308
2002	150,3	6,263	106,278	53,139	37,575	30,680	26,570	23,765	21,694	20,085	18,788	17,713	16,804	16,022	15,340	14,738	14,202	13,720	13,285	12,888	12,525
2003	52,0	2,167	36,770	18,385	13	10,614	9,192	8,222	7,506	6,949	6,500	6,128	5,814	5,543	5,307	5,099	4,914	4,747	4,596	4,459	4,333
2004	47,3	1,971	33,446	16,723	11,825	9,655	8,362	7,479	6,827	6,321	5,913	5,574	5,288	5,042	4,828	4,638	4,469	4,318	4,181	4,056	3,942
2005	62,0	2,583	43,841	21,920	15,5	12,656	10,960	9,803	8,949	8,285	7,750	7,307	6,932	6,609	6,328	6,080	5,858	5,660	5,480	5,316	5,167
2006	57,0	2,375	40,305	20,153	14,25	11,635	10,076	9,012	8,227	7,617	7,125	6,718	6,373	6,076	5,818	5,589	5,386	5,203	5,038	4,888	4,750
2007	72,0	3,000	50,912	25,456	18	14,697	12,728	11,384	10,392	9,621	9,000	8,485	8,050	7,675	7,348	7,060	6,803	6,573	6,364	6,174	6,000
2008	67,0	2,792	47,376	23,688	16,75	13,676	11,844	10,594	9,671	8,953	8,375	7,896	7,491	7,142	6,838	6,570	6,331	6,116	5,922	5,745	5,583
2009	70,0	2,917	49,497	24,749	17,5	14,289	12,374	11,068	10,104	9,354	8,750	8,250	7,826	7,462	7,144	6,864	6,614	6,390	6,187	6,002	5,833
2010	81,0	3,375	57,276	28,638	20,25	16,534	14,319	12,807	11,691	10,824	10,125	9,546	9,056	8,635	8,267	7,943	7,654	7,394	7,159	6,946	6,750
2011	64,5	2,688	45,608	22,804	16,125	13,166	11,402	10,198	9,310	8,619	8,063	7,601	7,211	6,876	6,583	6,325	6,095	5,888	5,701	5,531	5,375
2012	70,5	2,938	49,851	24,926	17,625	14,391	12,463	11,147	10,176	9,421	8,813	8,309	7,882	7,515	7,195	6,913	6,662	6,436	6,231	6,045	5,875
2013	70,3	2,929	49,710	24,855	17,575	14,350	12,427	11,115	10,147	9,394	8,788	8,285	7,860	7,494	7,175	6,893	6,643	6,417	6,214	6,028	5,858
2014	54,5	2,271	38,537	19,269	13,625	11,125	9,634	8,617	7,866	7,283	6,813	6,423	6,093	5,810	5,562	5,344	5,150	4,975	4,817	4,673	4,542
PROMEDIO			48,660	24,330	17,204	14,047	12,165	10,881	9,933	9,196	8,602	8,110	7,694	7,336	7,023	6,748	6,502	6,282	6,082	5,901	5,735
DESVIACION			15,636	7,818	5,528	4,514	3,909	3,496	3,192	2,955	2,764	2,606	2,472	2,357	2,257	2,168	2,089	2,019	1,955	1,896	1,843
C			12,196	6,098	4,312	3,521	3,049	2,727	2,490	2,305	2,156	2,033	1,928	1,839	1,760	1,691	1,630	1,575	1,525	1,479	1,437
A			-41,623	-20,811	-14,716	-12,015	-10,406	-9,307	-8,496	-7,866	-7,358	-6,937	-6,581	-6,275	-6,008	-5,772	-5,562	-5,373	-5,203	-5,047	-4,905

ANEXO C 1.1. Duración de las lluvias para diferentes minutos

ANEXO C 1.2. Intensidad de la precipitación para diferentes periodos de retorno estación de San Andrés

TR (años)	Duración de la lluvia, en minutos																		
	5	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
5	59,916	29,958	21,184	17,296	14,979	13,398	12,230	11,323	10,592	9,986	9,474	9,033	8,648	8,309	8,007	7,735	7,490	7,266	7,061
25	80,632	40,316	28,508	23,277	20,158	18,030	16,459	15,238	14,254	13,439	12,749	12,156	11,638	11,182	10,775	10,410	10,079	9,778	9,503
50	89,211	44,606	31,541	25,753	22,303	19,948	18,210	16,859	15,770	14,869	14,106	13,449	12,877	12,371	11,921	11,517	11,151	10,818	10,514
75	94,197	47,099	33,304	27,192	23,549	21,063	19,228	17,802	16,652	15,700	14,894	14,201	13,596	13,063	12,588	12,161	11,775	11,423	11,101
100	97,727	48,863	34,552	28,211	24,432	21,852	19,948	18,469	17,276	16,288	15,452	14,733	14,106	13,552	13,059	12,616	12,216	11,851	11,517

ANEXO C 2 Datos de las precipitaciones máximas en 24 horas de la:

Estación Pinos Sud

Año	Mes	Pmax.
1976	MAR.	60,0
1977	FEB.	55,0
1978	MAR.	67,0
1979	FEB.	70,0
1980	MAR.	102
1981	ENE.	90,1
1982	FEB.	72,4
1983	DIC.	63,4
1984	MAR.	45,3
1985	FEB.	35,6
1986	ENE.	67,0
1987	DIC.	23,2
1988	MAR.	32,0
1989	MAR.	23,3
1990	ABR.	25,3
1991	DIC.	135,2
1992	DIC.	76,2
1993	NOV.	88,7
1994	ENE.	77,0
1995	ENE.	56,4
1996	FEB.	59,9
1997	ENE.	67,2
1998	ENE.	50,4
1999	MAR.	55,0
2000	ENE.	146
2001	ENE.	67,6
2002	DIC.	98
2003	MAR.	95,0
2004	ABR.	72,0
2005	DIC.	65,6
2006	MAR.	59,7
2007	MAR.	90,1
2008	DIC.	104,6
2009	ENE.	68,1
2010	FEB.	105
2011	DIC.	96,4
2012	FEB.	58,3
2013	NOV.	53,0
2014	ENE.	57,2
MEDIA		146

Año	P máx 24 hr (mm)	i24 (mm/h r)	Intensidades Históricas (mm/hr)																		
			Duración de la lluvia, en minutos																		
			5	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
1976	60	2,500	42,426	21,213	15,000	12,247	10,607	9,487	8,660	8,018	7,500	7,071	6,708	6,396	6,124	5,883	5,669	5,477	5,303	5,145	5,000
1977	55	2,292	38,891	19,445	13,750	11,227	9,723	8,696	7,939	7,350	6,875	6,482	6,149	5,863	5,613	5,393	5,197	5,021	4,861	4,716	4,583
1978	67	2,792	47,376	23,688	16,750	13,676	11,844	10,594	9,671	8,953	8,375	7,896	7,491	7,142	6,838	6,570	6,331	6,116	5,922	5,745	5,583
1979	70	2,917	49,497	24,749	17,500	14,289	12,374	11,068	10,104	9,354	8,750	8,250	7,826	7,462	7,144	6,864	6,614	6,390	6,187	6,002	5,833
1980	102	4,250	72,125	36,062	25,500	20,821	18,031	16,128	14,722	13,630	12,750	12,021	11,404	10,873	10,410	10,002	9,638	9,311	9,016	8,746	8,500
1981	90,1	3,754	63,710	31,855	22,525	18,392	15,928	14,246	13,005	12,040	11,263	10,618	10,073	9,605	9,196	8,835	8,514	8,225	7,964	7,726	7,508
1982	72,4	3,017	51,195	25,597	18,100	14,779	12,799	11,447	10,450	9,675	9,050	8,532	8,095	7,718	7,389	7,099	6,841	6,609	6,399	6,208	6,033
1983	63,4	2,642	44,831	22,415	15,850	12,941	11,208	10,024	9,151	8,472	7,925	7,472	7,088	6,758	6,471	6,217	5,991	5,788	5,604	5,437	5,283
1984	45,3	1,888	32,032	16,016	11,325	9,247	8,008	7,163	6,538	6,053	5,663	5,339	5,065	4,829	4,623	4,442	4,280	4,135	4,004	3,884	3,775
1985	35,6	1,483	25,173	12,587	8,900	7,267	6,293	5,629	5,138	4,757	4,450	4,196	3,980	3,795	3,633	3,491	3,364	3,250	3,147	3,053	2,967
1986	67	2,792	47,376	23,688	16,750	13,676	11,844	10,594	9,671	8,953	8,375	7,896	7,491	7,142	6,838	6,570	6,331	6,116	5,922	5,745	5,583
1987	23,2	0,967	16,405	8,202	5,800	4,736	4,101	3,668	3,349	3,100	2,900	2,734	2,594	2,473	2,368	2,275	2,192	2,118	2,051	1,989	1,933
1988	32	1,333	22,627	11,314	8,000	6,532	5,657	5,060	4,619	4,276	4,000	3,771	3,578	3,411	3,266	3,138	3,024	2,921	2,828	2,744	2,667
1989	23,3	0,971	16,476	8,238	5,825	4,756	4,119	3,684	3,363	3,114	2,913	2,746	2,605	2,484	2,378	2,285	2,202	2,127	2,059	1,998	1,942
1990	25,3	1,054	17,890	8,945	6,325	5,164	4,472	4,000	3,652	3,381	3,163	2,982	2,829	2,697	2,582	2,481	2,391	2,310	2,236	2,169	2,108
1991	135,2	5,633	95,601	47,800	33,800	27,598	23,900	21,377	19,514	18,067	16,900	15,933	15,116	14,412	13,799	13,257	12,775	12,342	11,950	11,593	11,267
1992	76,2	3,175	53,882	26,941	19,050	15,554	13,470	12,048	10,999	10,183	9,525	8,980	8,549	8,123	7,777	7,472	7,200	6,956	6,735	6,534	6,350
1993	88,7	3,696	62,720	31,360	22,175	18,106	15,680	14,025	12,803	11,853	11,088	10,453	9,917	9,455	9,053	8,698	8,381	8,097	7,840	7,606	7,392
1994	77	3,208	54,447	27,224	19,250	15,718	13,612	12,175	11,114	10,290	9,625	9,075	8,609	8,208	7,859	7,550	7,276	7,029	6,806	6,603	6,417
1995	56,4	2,350	39,881	19,940	14,100	11,513	9,970	8,918	8,141	7,537	7,050	6,647	6,306	6,012	5,756	5,530	5,329	5,149	4,985	4,836	4,700
1996	59,9	2,496	42,356	21,178	14,975	12,227	10,589	9,471	8,646	8,004	7,488	7,059	6,697	6,385	6,114	5,874	5,660	5,468	5,294	5,136	4,992
1997	67,2	2,800	47,518	23,759	16,800	13,717	11,879	10,625	9,699	8,980	8,400	7,920	7,513	7,164	6,859	6,590	6,350	6,134	5,940	5,762	5,600
1998	50,4	2,100	35,638	17,819	12,600	10,288	8,910	7,969	7,275	6,735	6,300	5,940	5,635	5,373	5,144	4,942	4,762	4,601	4,455	4,322	4,200
1999	55	2,292	38,891	19,445	13,750	11,227	9,723	8,696	7,939	7,350	6,875	6,482	6,149	5,863	5,613	5,393	5,197	5,021	4,861	4,716	4,583
2000	146	6,083	103,238	51,619	36,500	29,802	25,809	23,085	21,073	19,510	18,250	17,206	16,323	15,564	14,901	14,316	13,796	13,328	12,905	12,519	12,167
2001	67,6	2,817	47,800	23,900	16,900	13,799	11,950	10,688	9,757	9,033	8,450	7,967	7,558	7,206	6,899	6,629	6,388	6,171	5,975	5,797	5,633
2002	98	4,083	69,296	34,648	24,500	20,004	17,324	15,495	14,145	13,096	12,250	11,549	10,957	10,447	10,002	9,610	9,260	8,946	8,662	8,403	8,167
2003	95	3,958	67,175	33,588	23,750	19,392	16,794	15,021	13,712	12,695	11,875	11,196	10,621	10,127	9,696	9,316	8,977	8,672	8,397	8,146	7,917
2004	72	3,000	50,912	25,456	18,000	14,697	12,728	11,384	10,392	9,621	9,000	8,485	8,050	7,675	7,348	7,060	6,803	6,573	6,364	6,174	6,000
2005	65,6	2,733	46,386	23,193	16,400	13,391	11,597	10,372	9,469	8,766	8,200	7,731	7,334	6,993	6,695	6,433	6,199	5,988	5,798	5,625	5,467
2006	59,7	2,488	42,214	21,107	14,925	12,186	10,554	9,439	8,617	7,978	7,463	7,036	6,675	6,364	6,093	5,854	5,641	5,450	5,277	5,119	4,975
2007	90,1	3,754	63,710	31,855	22,525	18,392	15,928	14,246	13,005	12,040	11,263	10,618	10,073	9,605	9,196	8,835	8,514	8,225	7,964	7,726	7,508
2008	104,6	4,358	73,963	36,982	26,150	21,351	18,491	16,539	15,098	13,978	13,075	12,327	11,695	11,150	10,676	10,257	9,884	9,549	9,245	8,969	8,717
2009	68,1	2,838	48,154	24,077	17,025	13,901	12,038	10,768	9,829	9,100	8,513	8,026	7,614	7,259	6,950	6,678	6,435	6,217	6,019	5,840	5,675
2010	105	4,375	74,246	37,123	26,250	21,433	18,562	16,602	15,155	14,031	13,125	12,374	11,739	11,193	10,717	10,296	9,922	9,585	9,281	9,004	8,750
2011	96,4	4,017	68,165	34,083	24,100	19,678	17,041	15,242	13,914	12,882	12,050	11,361	10,778	10,276	9,839	9,453	9,109	8,800	8,521	8,266	8,033
2012	58,3	2,429	41,224	20,612	14,575	11,900	10,306	9,218	8,415	7,791	7,288	6,871	6,518	6,215	5,950	5,717	5,509	5,322	5,153	4,999	4,858
2013	53	2,208	37,477	18,738	13,250	10,819	9,369	8,380	7,650	7,082	6,625	6,246	5,926	5,650	5,409	5,197	5,008	4,838	4,685	4,545	4,417
2014	57,2	2,383	40,447	20,223	14,300	11,676	10,112	9,044	8,256	7,644	7,150	6,741	6,395	6,098	5,838	5,609	5,405	5,222	5,056	4,905	4,767
PROMEDIO			49,574	24,787	17,527	14,311	12,393	11,085	10,119	9,369	8,763	8,262	7,838	7,474	7,155	6,875	6,625	6,400	6,197	6,012	5,842
DESVIACION			19,350	9,675	6,841	5,586	4,837	4,327	3,950	3,657	3,421	3,225	3,059	2,917	2,793	2,683	2,586	2,498	2,419	2,347	2,280
C			15,093	7,546	5,336	4,357	3,773	3,375	3,081	2,852	2,668	2,515	2,386	2,275	2,178	2,093	2,017	1,948	1,887	1,830	1,779
A			-40,865	-20,433	-14,448	-11,797	-10,216	-9,138	-8,342	-7,723	-7,224	-6,811	-6,461	-6,161	-5,898	-5,667	-5,461	-5,276	-5,108	-4,956	-4,816

ANEXO C 2.1 Duración de las lluvias para diferentes minutos.

ANEXO C 2.2 Intensidad de la precipitación para diferentes periodos de retorno estación de Pinos Sud

TR (años)	Duración de la lluvia, en minutos																		
	5	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
5	63,503	31,752	22,452	18,332	15,876	14,200	12,963	12,001	11,226	10,584	10,041	9,573	9,166	8,806	8,486	8,198	7,938	7,701	7,484
25	89,140	44,570	31,516	25,732	22,285	19,932	18,196	16,846	15,758	14,857	14,094	13,438	12,866	12,361	11,912	11,508	11,142	10,810	10,505
50	99,756	49,878	35,269	28,797	24,939	22,306	20,363	18,852	17,635	16,626	15,773	15,039	14,399	13,834	13,330	12,878	12,470	12,097	11,756
75	105,927	52,963	37,451	30,578	26,482	23,686	21,622	20,018	18,725	17,654	16,749	15,969	15,289	14,689	14,155	13,675	13,241	12,846	12,484
100	110,294	55,147	38,995	31,839	27,574	24,663	22,514	20,844	19,497	18,382	17,439	16,627	15,920	15,295	14,739	14,239	13,787	13,375	12,998

ANEXOS C3

Datos de las precipitaciones máximas en 24 horas de la:

Estación San Jacinto Sud

Año	Mes	Pmax.
1976	ENE.	28,0
1977	OCT.	59,0
1978	ENE.	35,0
1979	OCT.	29,5
1980	FEB.	49,0
1981	DIC.	38,0
1982	ABR.	48,5
1983	NOV.	38,5
1984	MAR.	65,0
1985	DIC.	43,0
1986	DIC.	64,5
1987	FEB.	49,1
1988	DIC.	68,2
1989	ENE.	45,0
1990	DIC.	50,7
1991	MAR.	62,0
1992	DIC.	40,0
1993	NOV.	53,8
1994	DIC.	24,4
1995	FEB.	40,0
1996	FEB.	45,5
1997	FEB.	82,0
1998	MAR.	50,8
1999	MAR.	36,5
2000	ENE.	110,5
2001	ENE.	80,5
2002	FEB.	80,3
2003	NOV.	80,5
2004	MAR.	100,0
2005	FEB.	60,0
2006	ENE.	55,0
2007	MAR.	47,4
2008	MAR.	48,5
2009	DIC.	55,6
2010	FEB.	58,0
2011	ENE.	40,5
2012	FEB.	52,7
2013	NOV.	26,0
2014	ENE.	55,0
MEDIA		110,5

Año	P máx 24 hr (mm)	i24 (mm/hr)	Intensidades Históricas (mm/hr)																		
			Duración de la lluvia, en minutos																		
			5	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
1976	28	1,67	19,799	9,899	7,000	5,745	4,950	4,427	4,041	3,742	3,500	3,300	3,130	2,985	2,858	2,746	2,646	2,556	2,475	2,401	2,333
1977	59	2,458	41,719	20,860	14,750	12,043	10,430	9,329	8,516	7,884	7,375	6,953	6,596	6,289	6,022	5,785	5,575	5,386	5,215	5,059	4,917
1978	35	1,458	24,749	12,374	8,750	7,144	6,187	5,534	5,052	4,677	4,375	4,125	3,913	3,731	3,572	3,432	3,307	3,195	3,094	3,001	2,917
1979	29,5	1,229	20,860	10,430	7,375	6,022	5,215	4,664	4,258	3,942	3,688	3,477	3,298	3,145	3,011	2,893	2,787	2,693	2,607	2,530	2,458
1980	49	2,042	34,648	17,324	12,250	10,002	8,662	7,748	7,073	6,548	6,125	5,775	5,478	5,223	5,001	4,805	4,630	4,473	4,331	4,202	4,083
1981	38	1,583	26,870	13,435	9,500	7,757	6,718	6,008	5,485	5,078	4,750	4,478	4,249	4,051	3,878	3,726	3,591	3,469	3,359	3,258	3,167
1982	48,5	2,021	34,295	17,147	12,125	9,900	8,574	7,669	7,000	6,481	6,063	5,716	5,422	5,170	4,950	4,756	4,583	4,427	4,287	4,159	4,042
1983	38,5	1,604	27,224	13,612	9,625	7,859	6,806	6,087	5,557	5,145	4,813	4,537	4,304	4,104	3,929	3,775	3,638	3,515	3,403	3,301	3,208
1984	65	2,708	45,962	22,981	16,250	13,268	11,490	10,277	9,382	8,686	8,125	7,660	7,267	6,929	6,634	6,374	6,142	5,934	5,745	5,574	5,417
1985	43	1,792	30,406	15,203	10,750	8,777	7,601	6,799	6,207	5,746	5,375	5,068	4,808	4,584	4,389	4,216	4,063	3,925	3,801	3,687	3,583
1986	64,5	2,688	45,608	22,804	16,125	13,166	11,402	10,198	9,310	8,619	8,063	7,601	7,211	6,876	6,583	6,325	6,095	5,888	5,701	5,531	5,375
1987	49,1	2,046	34,719	17,359	12,275	10,022	8,680	7,763	7,087	6,561	6,138	5,786	5,490	5,234	5,011	4,815	4,640	4,482	4,340	4,210	4,092
1988	68,2	2,842	48,225	24,112	17,050	13,921	12,056	10,783	9,844	9,114	8,525	8,037	7,625	7,270	6,961	6,688	6,444	6,226	6,028	5,848	5,683
1989	45	1,875	31,820	15,910	11,250	9,186	7,955	7,115	6,495	6,013	5,625	5,303	5,031	4,797	4,593	4,413	4,252	4,108	3,977	3,859	3,750
1990	50,7	2,113	35,850	17,925	12,675	10,349	8,963	8,016	7,318	6,775	6,338	5,975	5,668	5,405	5,175	4,972	4,791	4,628	4,481	4,347	4,225
1991	62	2,583	43,841	21,920	15,500	12,656	10,960	9,803	8,949	8,285	7,750	7,307	6,932	6,609	6,328	6,080	5,858	5,660	5,480	5,316	5,167
1992	40	1,667	28,284	14,142	10,000	8,165	7,071	6,325	5,774	5,345	5,000	4,714	4,472	4,264	4,082	3,922	3,780	3,651	3,536	3,430	3,333
1993	53,8	2,242	38,042	19,021	13,450	10,982	9,511	8,507	7,765	7,189	6,725	6,340	6,015	5,735	5,491	5,276	5,084	4,911	4,755	4,613	4,483
1994	24,4	1,071	17,253	8,627	6,100	4,981	4,313	3,858	3,522	3,261	3,050	2,876	2,728	2,601	2,490	2,393	2,306	2,227	2,157	2,092	2,033
1995	40	1,667	28,284	14,142	10,000	8,165	7,071	6,325	5,774	5,345	5,000	4,714	4,472	4,264	4,082	3,922	3,780	3,651	3,536	3,430	3,333
1996	45,5	1,896	32,173	16,087	11,375	9,288	8,043	7,194	6,567	6,080	5,688	5,362	5,087	4,850	4,644	4,462	4,299	4,154	4,022	3,902	3,792
1997	82	3,417	57,983	28,991	20,500	16,738	14,496	12,965	11,836	10,958	10,250	9,664	9,168	8,741	8,369	8,041	7,748	7,486	7,248	7,031	6,833
1998	50,8	2,117	35,921	17,961	12,700	10,370	8,980	8,032	7,332	6,788	6,350	5,987	5,680	5,415	5,185	4,981	4,800	4,637	4,490	4,356	4,233
1999	36,5	1,521	25,809	12,905	9,125	7,451	6,452	5,771	5,268	4,878	4,563	4,302	4,081	3,891	3,725	3,579	3,449	3,332	3,226	3,130	3,042
2000	110,5	4,604	78,135	39,068	27,625	22,556	19,534	17,472	15,949	14,766	13,813	13,023	12,354	11,779	11,278	10,835	10,441	10,087	9,767	9,475	9,208
2001	80,5	3,354	56,922	28,461	20,125	16,432	14,231	12,728	11,619	10,757	10,063	9,487	9,000	8,581	8,216	7,894	7,607	7,349	7,115	6,903	6,708
2002	80,3	3,346	56,781	28,390	20,075	16,391	14,195	12,697	11,590	10,731	10,038	9,463	8,978	8,560	8,196	7,874	7,588	7,330	7,098	6,886	6,692
2003	80,5	3,354	56,922	28,461	20,125	16,432	14,231	12,728	11,619	10,757	10,063	9,487	9,000	8,581	8,216	7,894	7,607	7,349	7,115	6,903	6,708
2004	100	4,167	70,711	35,355	25,000	20,412	17,678	15,811	14,434	13,363	12,500	11,785	11,180	10,660	10,206	9,806	9,449	9,129	8,839	8,575	8,333
2005	60	2,500	42,426	21,213	15,000	12,247	10,607	9,487	8,660	8,018	7,500	7,071	6,708	6,396	6,124	5,883	5,669	5,477	5,303	5,145	5,000
2006	55	2,292	38,891	19,445	13,750	11,227	9,723	8,696	7,939	7,350	6,875	6,482	6,149	5,863	5,613	5,393	5,197	5,021	4,861	4,716	4,583
2007	47,4	1,975	33,517	16,758	11,850	9,675	8,379	7,495	6,842	6,334	5,925	5,586	5,299	5,053	4,838	4,648	4,479	4,327	4,190	4,065	3,950
2008	48,5	2,021	34,295	17,147	12,125	9,900	8,574	7,669	7,000	6,481	6,063	5,716	5,422	5,170	4,950	4,756	4,583	4,427	4,287	4,159	4,042
2009	55,6	2,317	39,315	19,658	13,900	11,349	9,829	8,791	8,025	7,430	6,950	6,553	6,216	5,927	5,675	5,452	5,254	5,076	4,914	4,768	4,633
2010	58	2,417	41,012	20,506	14,500	11,839	10,253	9,171	8,372	7,751	7,250	6,835	6,485	6,183	5,920	5,687	5,480	5,295	5,127	4,973	4,833
2011	40,5	1,688	28,638	14,319	10,125	8,267	7,159	6,404	5,846	5,412	5,063	4,773	4,528	4,317	4,134	3,971	3,827	3,697	3,580	3,473	3,375
2012	52,7	2,196	37,265	18,632	13,175	10,757	9,316	8,333	7,607	7,042	6,588	6,211	5,892	5,618	5,379	5,168	4,980	4,811	4,658	4,519	4,392
2013	26	1,083	18,385	9,192	6,500	5,307	4,596	4,111	3,753	3,474	3,250	3,064	2,907	2,772	2,654	2,550	2,457	2,373	2,298	2,229	2,167
2014	55	2,292	38,891	19,445	13,750	11,227	9,723	8,696	7,939	7,350	6,875	6,482	6,149	5,863	5,613	5,393	5,197	5,021	4,861	4,716	4,583

ANEXO C 3.1 Duración de las lluvias para diferentes minutos.

ANEXO C 3.2 Intensidad de la precipitación para diferentes periodos de retorno estación San Jacinto.

TR (años)	Duración de la lluvia, en minutos																		
	5	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
5	47,743	23,872	16,880	13,782	11,936	10,676	9,746	9,023	8,440	7,957	7,549	7,198	6,891	6,621	6,380	6,164	5,968	5,790	5,627
25	65,654	32,827	23,212	18,953	16,414	14,681	13,402	12,407	11,606	10,942	10,381	9,898	9,476	9,105	8,773	8,476	8,207	7,962	7,737
50	73,071	36,536	25,835	21,094	18,268	16,339	14,916	13,809	12,917	12,179	11,554	11,016	10,547	10,133	9,765	9,433	9,134	8,861	8,612
75	77,382	38,691	27,359	22,338	19,346	17,303	15,796	14,624	13,679	12,897	12,235	11,666	11,169	10,731	10,341	9,990	9,673	9,384	9,120
100	80,433	40,217	28,437	23,219	20,108	17,985	16,418	15,200	14,219	13,406	12,718	12,126	11,610	11,154	10,748	10,384	10,054	9,754	9,479