

MINISTERIO DE OBRAS PUBLICAS
DIRECCION GENERAL DE AGUAS

Boletín N° : 345
Mes : Enero
Año : 2007

DE : JAVIER NARBONA NARANJO
ING. JEFE DEPARTAMENTO DE HIDROLOGIA

*INFORMACION PLUVIOMETRICA, FLUVIOMETRICA,
ESTADO DE EMBALSES Y AGUAS SUBTERRANEAS*

Contenido :

- 1.- Informe pluviométrico
- 2.- Volúmenes de embalses
- 3.- Informe fluviométrico
- 4.- Informe aguas subterráneas

En Internet (www.dga.cl) se publica: .
-Los informes de este boletín
-Caudales en tiempo real

NOTA: Datos provisorios sujetos a modificaciones posteriores

INFORME PLUVIOMETRICO NACIONAL N°01

ESTACIONES	ENERO	TOTALES AL 31 DE ENERO			EXCESO O DÉFICIT (%)
		2007 (mm)	2006 (mm)	PROMEDIO (mm)	
CENTRAL CHAPIQUÍÑA	51.0	51.0	26.5	52.4*	- 3
EMBALSE CONCHI	2.5	2.5	9.0	7.2*	- 65
CALAMA	0.0	0.0	0.2	0.9	-100
ANTOFAGASTA	0.0	0.0	0.0	0.5	-100
COPIAPÓ	0.0	0.0	0.0	0.0	0
EMBALSE LAUTARO	0.0	0.0	0.0	0.3	-100
VALLENAR	0.0	0.0	0.0	0.0	0
RIVADAVIA	0.0	0.0	0.0	0.1	-100
VICUÑA	0.0	0.0	0.0	0.1	-100
LA SERENA	0.0	0.0	0.0	0.1	-100
OVALLE	0.0	0.0	0.0	0.0	0
EMBALSE PALOMA	0.0	0.0	0.0	0.2	-100
COGOTÍ 18	0.0	0.0	0.0	0.1	-100
HUINTIL	0.0	0.0	0.0	0.6	-100
COIRÓN	0.0	0.0	0.0	1.0	-100
VILCUYA	2.5	2.5	0.0	1.5	66
SAN FELIPE	0.0	0.0	0.0	0.5	-100
LAGO PEÑUELAS	0.0	0.0	2.0	0.7	-100
EMBALSE EL YESO	0.0	0.0	7.3	3.9	-100
CERRO CALÁN	0.0	0.0	0.0	0.7	-100
SANTIAGO (MOP)	0.0	0.0	0.0	0.4	-100
RANCAGUA	0.0	0.0	0.0	0.9	-100
SAN FERNANDO	0.0	0.0	0.0	1.6	-100
CONVENTO VIEJO	0.0	0.0	0.0	2.0	-100
CURICO	2.3	2.3	0.0	3.8	- 39
TALCA	3.4	3.4	7.5	3.8	- 11
COLORADO	10.0	10.0	32.5	9.0	11
LINARES	21.7	21.7	11.7	9.2	136
PARRAL	4.5	4.5	19.0	12.1	- 63
EMBALSE DIGUA	22.0	22.0	47.2	15.9	38
CHILLÁN	5.2	5.2	24.0	16.4	- 68
CONCEPCIÓN	35.6	35.6	39.1	22.8	56
LOS ÁNGELES	21.5	21.5	33.0	24.2	- 11
CAÑETE	10.9	10.9	46.0	31.8	- 66
ANGOL	19.5	19.5	31.5	18.7	4
TEMUCO	13.0	13.0	54.1	43.6	- 70
VALDIVIA	19.8	19.8	133.9	73.4	- 73
OSORNO	20.8	20.8	104.4	57.2	- 64
PUERTO MONTT	35.8	35.8	213.9	97.4	- 63
COYHAIQUE	6.5	6.5	90.0	65.3	- 90
PUNTA ARENAS	38.5	38.5	89.4	36.8	5

Promedios acumulados para el período 1961-1990 (D.G.A)

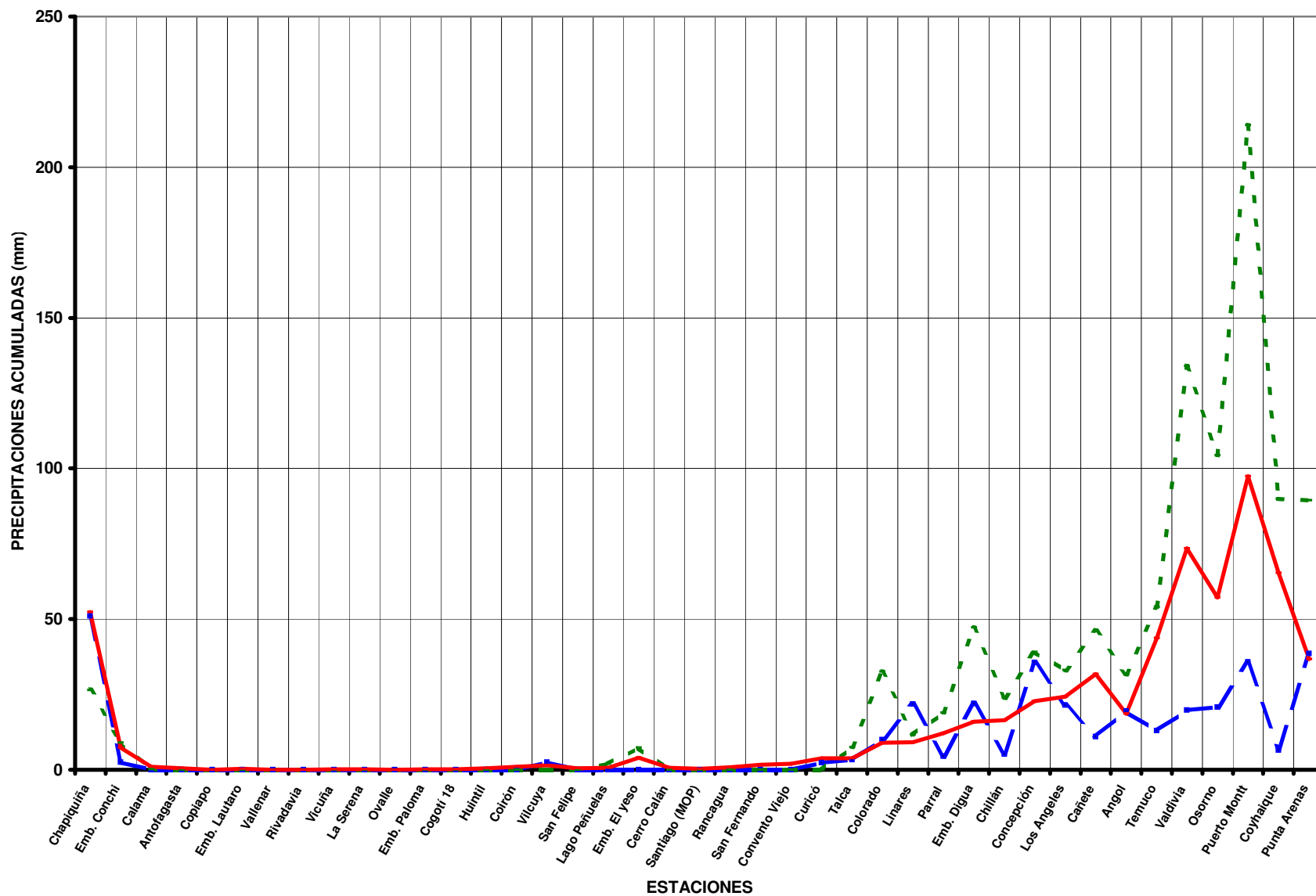
* : Promedios calculados para períodos inferiores a 30 años
Valores expresados en milímetros (1 mm = 1 lt x m2)

TOTALES DE LLUVIA HASTA EL 31 de Enero de 2007

Normal

Año 2007

Año 2006



ESTADO DE EMBALSES

Ultimo día del mes
(Volúmenes en mill-m³)

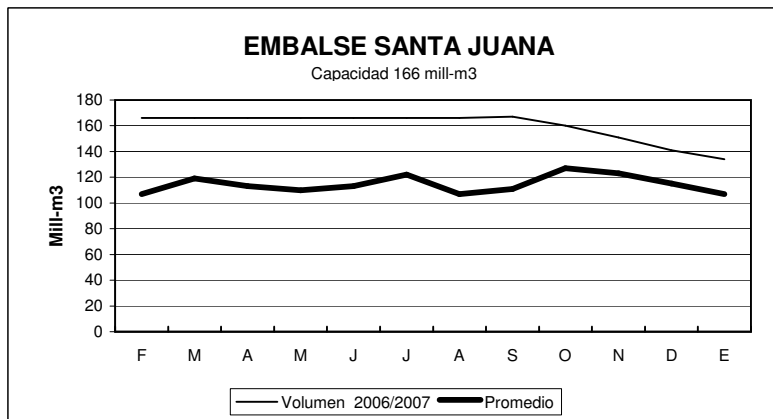
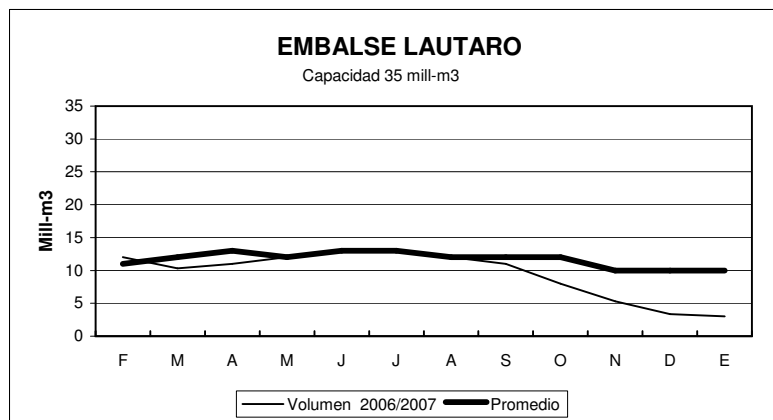
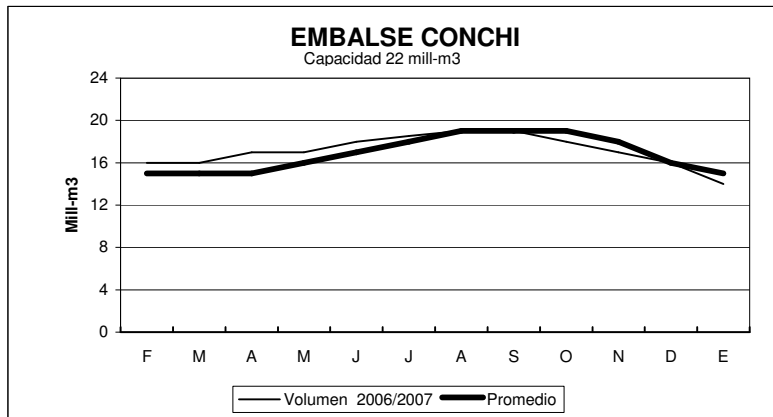
EMBALSE	REGION	CUENCA	CAPACIDAD	PROMEDIO	Enero	
				HISTORICO MENSUAL	2007	2006
Conchi	II	Loa	22	15	14	15
Lautaro	III	Copiapó	35	11	3	11
Santa Juana	III	Huasco	166	107	134	159
La Laguna	IV	Elqui	40	23	33	36
Puclaro	IV	Elqui	200	72	196	200
Recoleta	IV	Limarí	100	65	75	91
La Paloma	IV	Limarí	748	418	517	574
Cogotí	IV	Limarí	150	85	59	98
Culimo	IV	Quilimarí	10	4.1	1.0	1.9
Corrales	IV	Illapel	50	35	48	49
Peñuelas	V	Peñuelas	95	24	24	27
El Yeso	RM	Maipo	256	198	214	233
Rungue	RM	Maipo	2.2	0.8	1.0	1.0
Rapel	VI	Rapel	695	616	617	634
Colbún	VII	Maule	1544	1332	1439	1519
Lag. Maule	VII	Maule	1420	1031	1420	1088
Bullileo	VII	Maule	60	42	50	49
Digua	VII	Maule	220	100	85	93
Tutuvén	VII	Maule	15	6.5	6	6.1
Coihueco	VIII	Itata	29	19	20	22
Lago Laja (&)	VIII	Bio-Bio	5582	3619	3522	3104

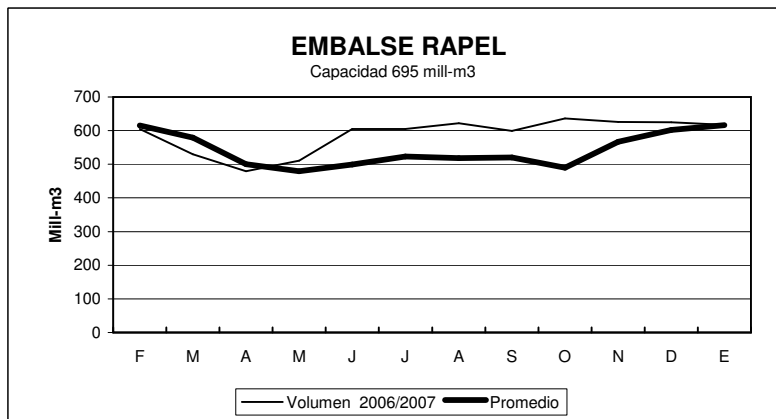
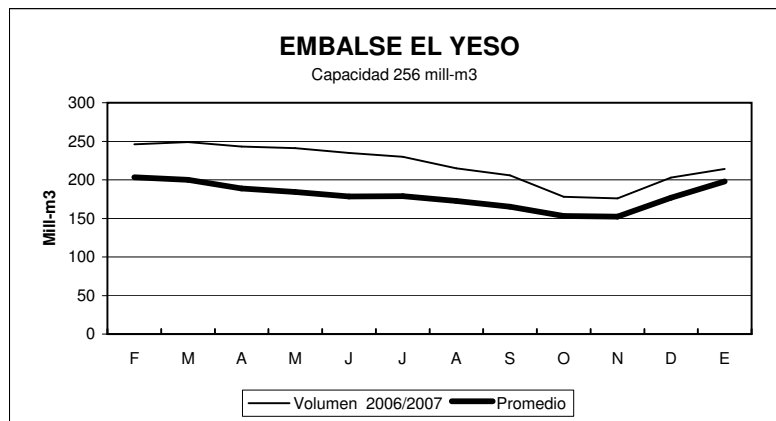
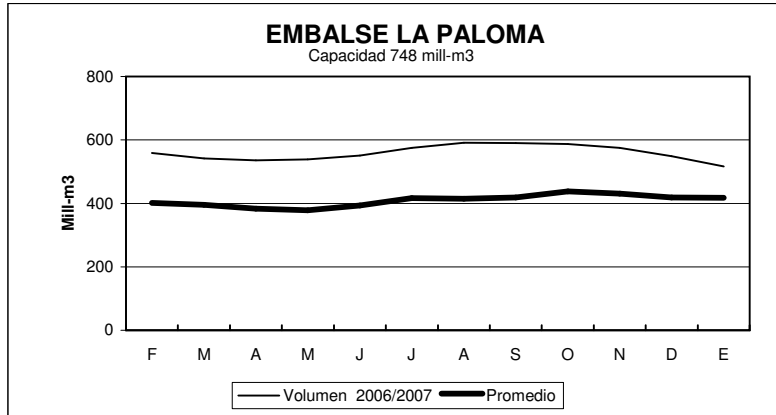
RESUMEN ANUAL

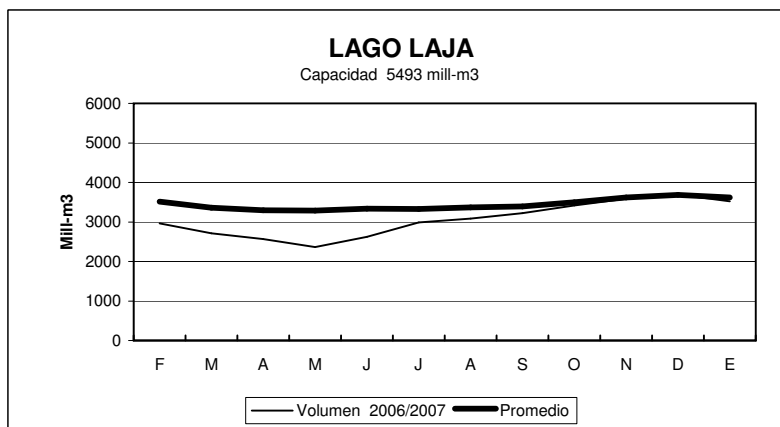
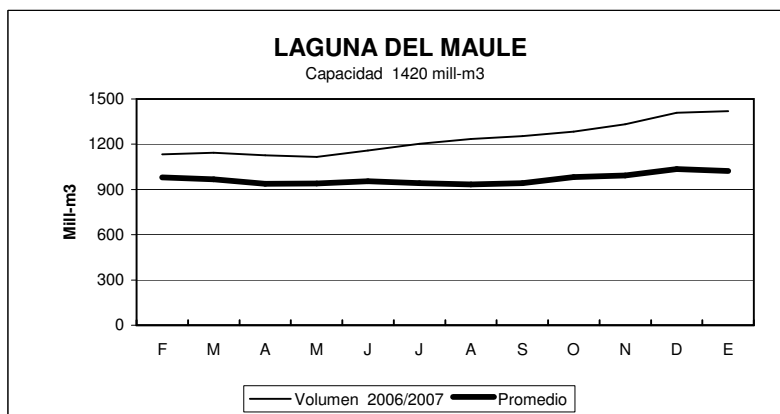
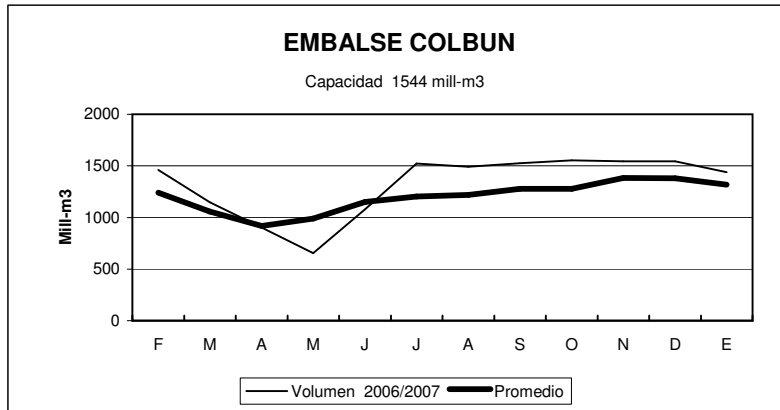
EMBALSE	2006-2007											
	F	M	A	M	J	J	A	S	O	N	D	E
Conchi	16	16	17	17	18	19	19	19	18	17	16	14
Lautaro	12	10	11	12	13	13	12	11	8	5	3	3
Santa Juana	166	166	166	166	166	166	166	167	160	151	141	134
La Laguna	31	28	32	34	33	32	31	32	35	35	35	33
Puclaro	200	200	200	200	196	197	197	192	189	192	195	196
Recoleta	100	92	94	95	97	97	95	91	87	82	79	75
La Paloma	559	542	536	539	551	575	591	590	587	575	549	517
Cogotí	92	86	82	79	79	83	85	82	81	75	67	59
Culimo	1.2	0.4	0.1	0.4	0.4	0.7	1.3	1.4	1.6	1.7	1.6	1.0
Corrales	49	49	48	48	48	50	51	50	50	50	49	48
Peñuelas	24	22	21	20	21	30	34	33	32	29	26	24
El Yeso	246	249	243	241	235	230	215	206	178	176	203	214
Rungue	0.6	0.3	0.2	0.2	0.3	2.0	2.0	2.0	2.0	1.8	1.3	1.0
Rapel	605	530	479	511	605	605	622	599	636	626	625	617
Colbún	1462	1148	902	654	1078	1522	1491	1525	1555	1544	1544	1439
Lag. Maule	1134	1144	1127	1115	1159	1202	1234	1254	1283	1332	1408	1420
Bullileo	24	0	0	7	30	60	60	60	60	60	60	50
Digua	34	11	8.6	2.7	93	179	219	220	220	220	155	85
Tutuvén	4	2.0	3.4	3.0	10	11	12	12	14	15	10	6
Coihueco	14	6.6	3.9	6	10	16	27	29	30	29	27	20
Lago Laja (&)	2960	2709	2566	2365	2620	2989	3083	3224	3421	3590	3689	3522

(&) : Volumen sobre cota 1300 msnm

ESTADO DE EMBALSES



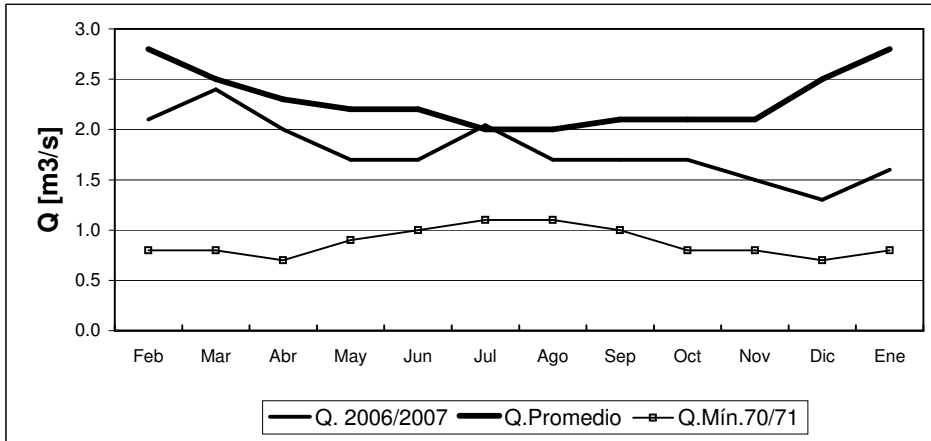




INFORME FLUVIOMETRICO
Caudales medios mensuales en m3/seg

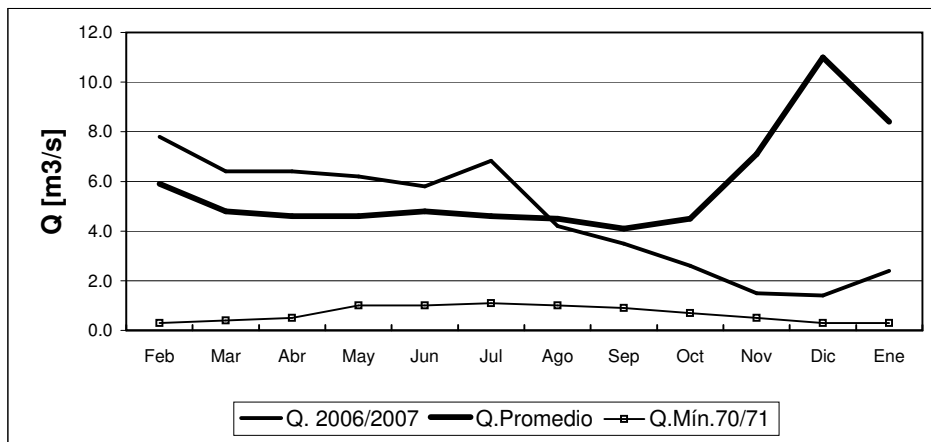
Ene-07

RIO COPIAPO EN LA PUERTA



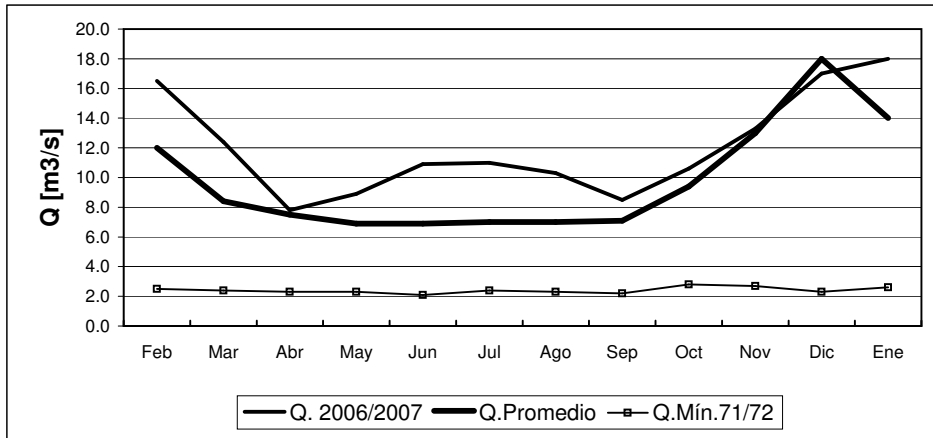
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	2.1	2.4	2.0	1.7	1.7	2.0	1.7	1.7	1.7	1.5	1.3	1.6
Q. Promedio	2.8	2.5	2.3	2.2	2.2	2.0	2.0	2.1	2.1	2.1	2.5	2.8
Q. Mín.70/71	0.8	0.8	0.7	0.9	1.0	1.1	1.1	1.0	0.8	0.8	0.7	0.8

RIO HUASCO EN ALGODONES



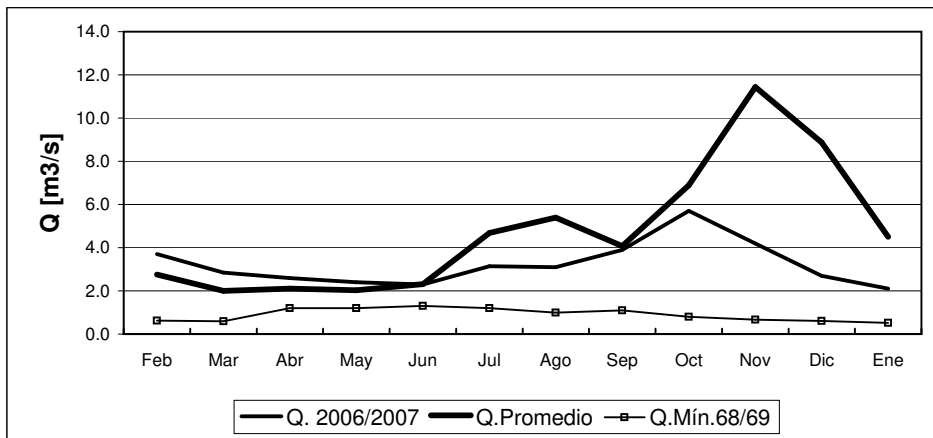
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	7.8	6.4	6.4	6.2	5.8	6.8	4.2	3.5	2.6	1.5	1.4	2.4
Q. Promedio	5.9	4.8	4.6	4.6	4.8	4.6	4.5	4.1	4.5	7.1	11.0	8.4
Q. Mín.70/71	0.3	0.4	0.5	1.0	1.0	1.1	1.0	0.9	0.7	0.5	0.3	0.3

RIO ELQUI EN ALGARROBAL



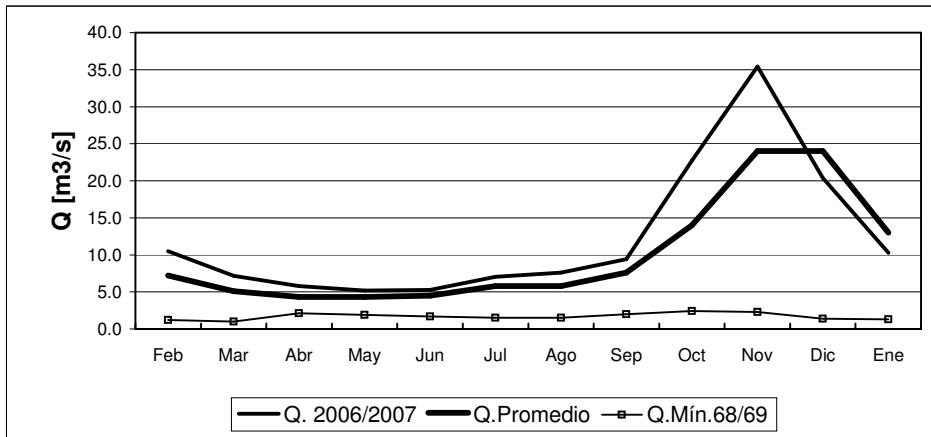
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	16.5	12.4	7.8	8.9	10.9	11.0	10.3	8.5	10.6	13.3	17.0	18.0
Q.Promedio	12.0	8.4	7.5	6.9	6.9	7.0	7.0	7.1	9.4	13.0	18.0	14.0
Q.Mín.71/72	2.5	2.4	2.3	2.3	2.1	2.4	2.3	2.2	2.8	2.7	2.3	2.6

RIO GRANDE EN LAS RAMADAS



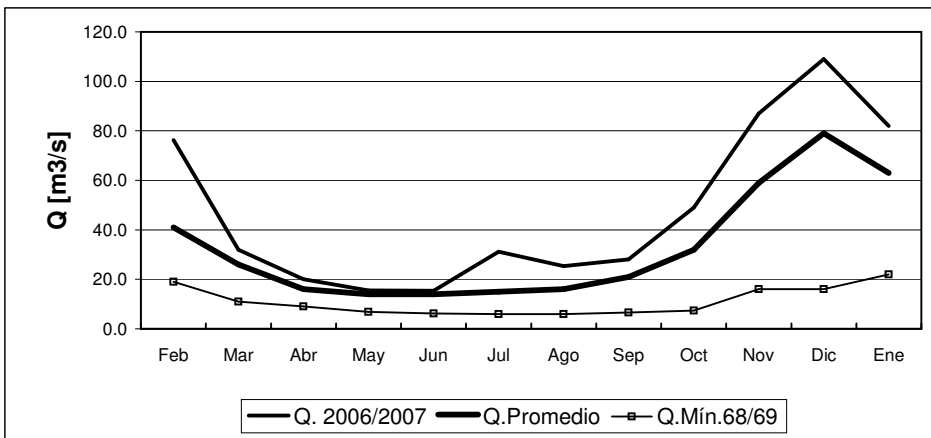
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	3.7	2.9	2.6	2.4	2.3	3.1	3.1	3.9	5.7	4.2	2.7	2.1
Q.Promedio	2.8	2.0	2.1	2.0	2.3	4.7	5.4	4.1	6.9	11.4	8.9	4.5
Q.Mín.68/69	0.6	0.6	1.2	1.2	1.3	1.2	1.0	1.1	0.8	0.7	0.6	0.5

RIO CHOAPA EN CUNCUMEN



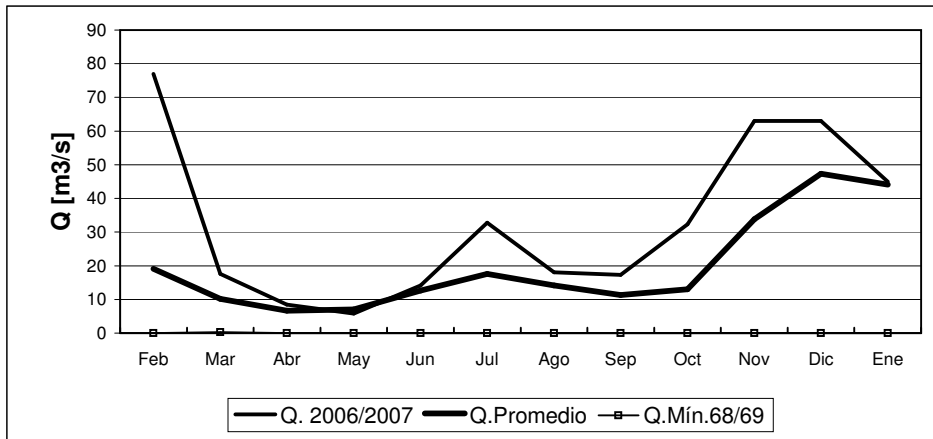
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	10.5	7.2	5.8	5.2	5.3	7.1	7.6	9.4	22.7	35.4	20.4	10.3
Q.Promedio	7.2	5.1	4.3	4.3	4.5	5.8	5.8	7.6	14.0	24.0	24.0	13.0
Q.Mín.68/69	1.2	1.0	2.1	1.9	1.7	1.5	1.5	2.0	2.4	2.3	1.4	1.3

RIO ACONCAGUA EN CHACABUQUITO



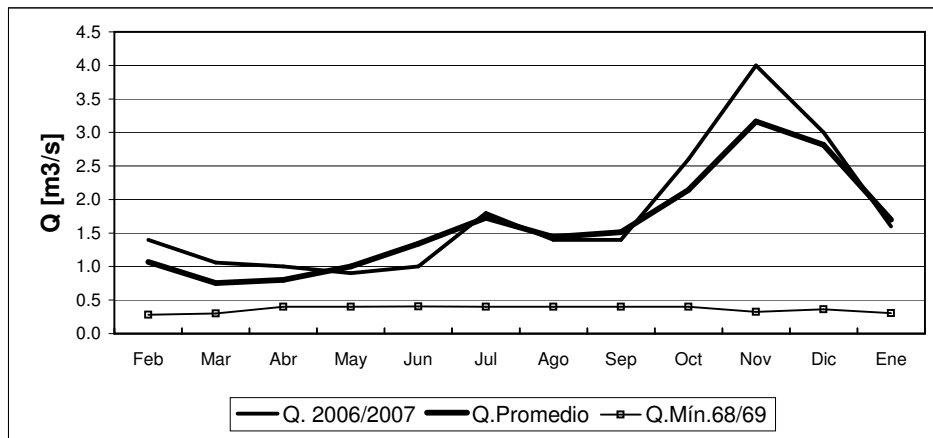
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	76.3	31.9	20.0	15.5	15.4	31.2	25.4	28.0	49.0	87.0	109.0	82.0
Q.Promedio	41.0	26.0	16.0	14.0	14.0	15.0	16.0	21.0	32.0	59.0	79.0	63.0
Q.Mín.68/69	19.0	11.0	9.1	6.9	6.2	5.9	5.9	6.6	7.4	16.0	16.0	22.0

RIO ACONCAGUA EN SAN FELIPE



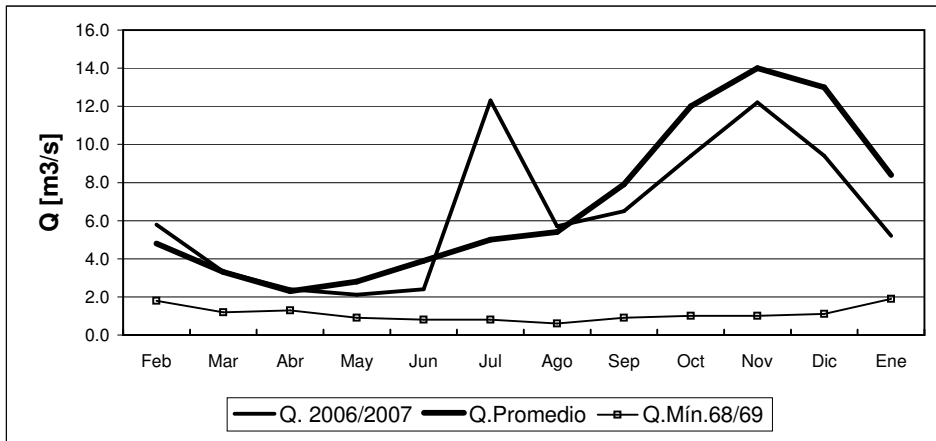
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	77	17.6	8.5	5.8	14.2	32.8	18.1	17.3	32.3	63.0	63.0	45.0
Q.Promedio	19.1	10.2	6.7	7.1	12.7	17.6	14.2	11.3	13.0	33.8	47.3	44.1
Q.Mín.68/69	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ESTERO ARRAYAN EN LA MONTOSA



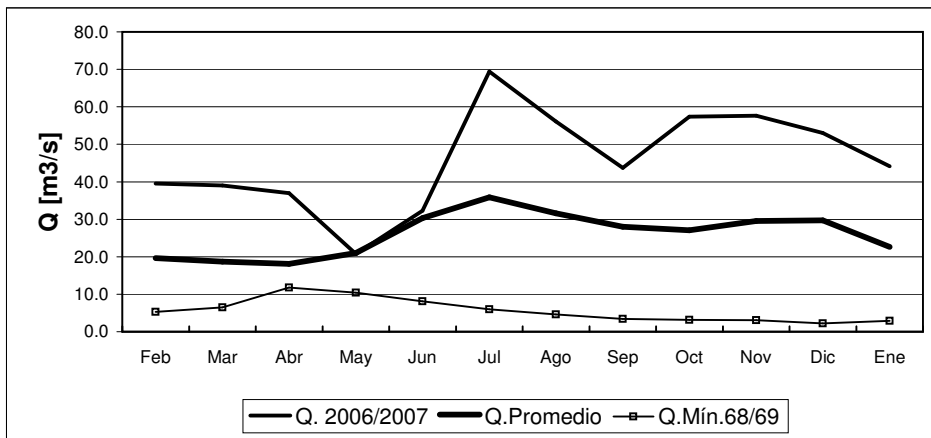
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	1.4	1.1	1.0	0.9	1.0	1.8	1.4	1.4	1.4	2.6	4.0	3.0
Q.Promedio	1.1	0.8	0.8	1.0	1.3	1.7	1.4	1.5	2.1	3.2	2.8	1.7
Q.Mín.68/69	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3

RIO MAPOCHO EN LOS ALMENDROS



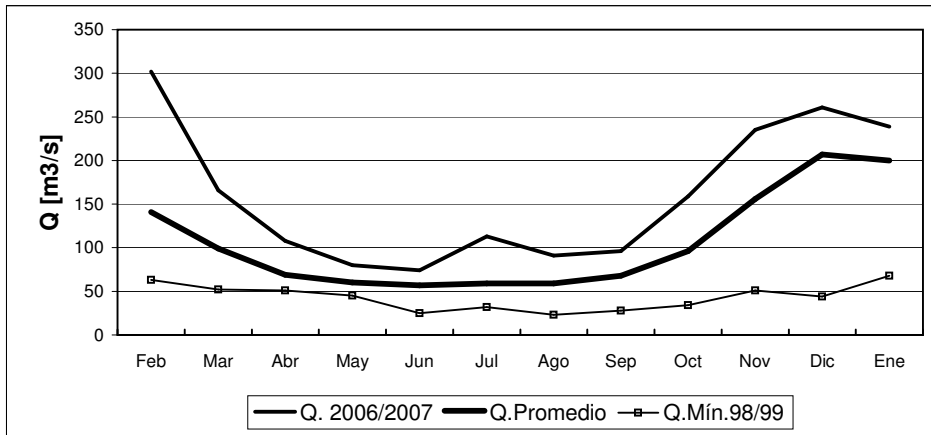
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	5.8	3.3	2.4	2.1	2.4	12.3	5.7	6.5	9.4	12.2	9.4	5.2
Q. Promedio	4.8	3.3	2.3	2.8	3.9	5.0	5.4	7.9	12.0	14.0	13.0	8.4
Q. Mín.68/69	1.8	1.2	1.3	0.9	0.8	0.8	0.6	0.9	1.0	1.0	1.1	1.9

RIO MAPOCHO EN RINCONADA DE MAIPU



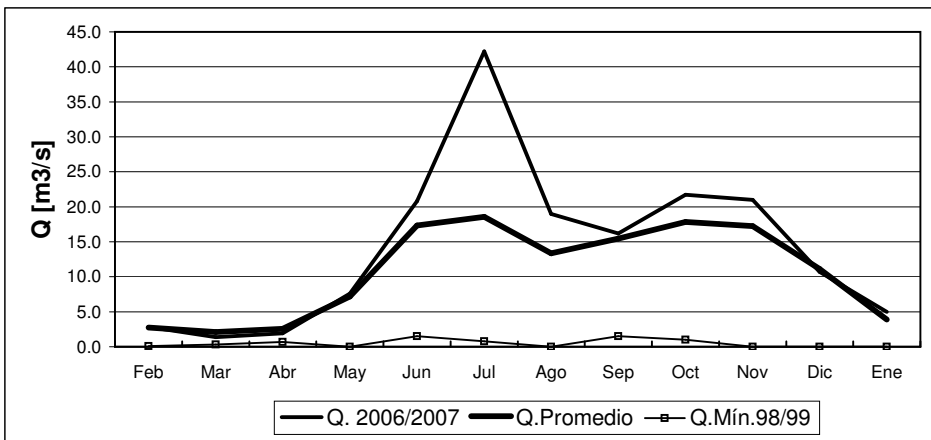
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	39.5	39.0	37.0	20.8	32.3	69.4	56.1	43.7	57.4	57.6	53.0	44.1
Q. Promedio	19.6	18.7	18.1	21.0	30.3	35.9	31.6	28.0	27.1	29.5	29.7	22.6
Q. Mín.68/69	5.3	6.5	11.8	10.4	8.1	6.0	4.6	3.4	3.2	3.1	2.2	2.9

RIO MAIPO EN EL MANZANO



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	302	166	108	80	74	113	91	96	159	235	261	239
Q. Promedio	141	99	69	60	57	59	59	68	96	156	207	200
Q. Mín. 98/99	63	52	51	45	25	32	23	28	34	51	44	68

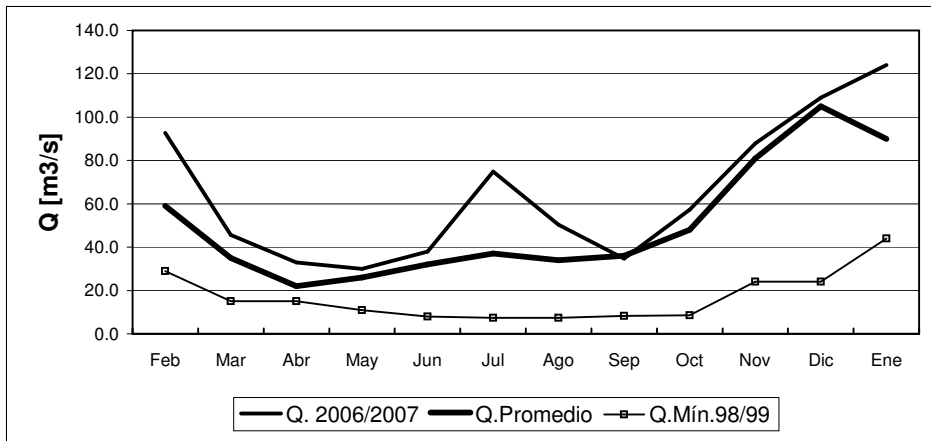
RIO CLARO EN EL VALLE 2



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	2.8	1.4	1.9	7.6	20.8	42.2	19.0	16.2	21.7	21.0	10.7	5.0
Q. Promedio	2.7	2.1	2.6	7.2	17.3	18.6	13.4	15.5	17.9	17.2	11.1	3.9
Q. Mín. 98/99	0.1	0.3	0.7	0.0	1.5	0.8	0.0	1.5	1.0	0.0	0.0	0.0

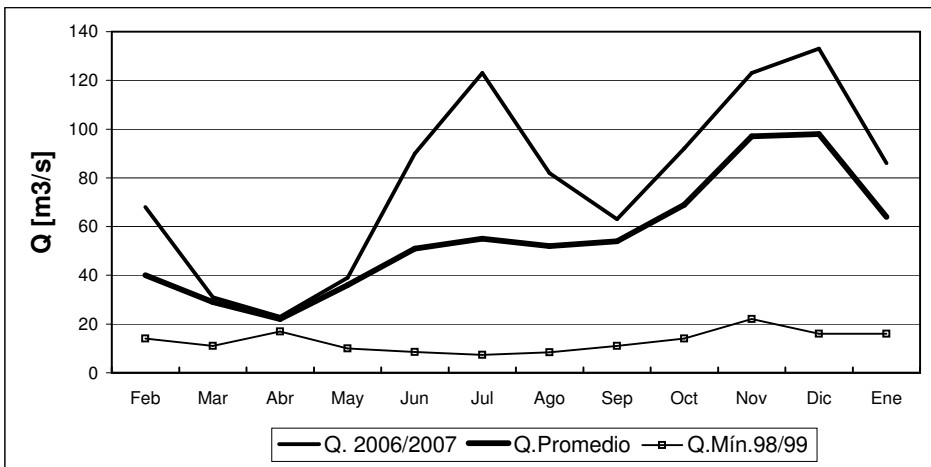
* Dic. 2006 valor de Aforo

RIO TINGUIRIRICA BAJO BRIONES



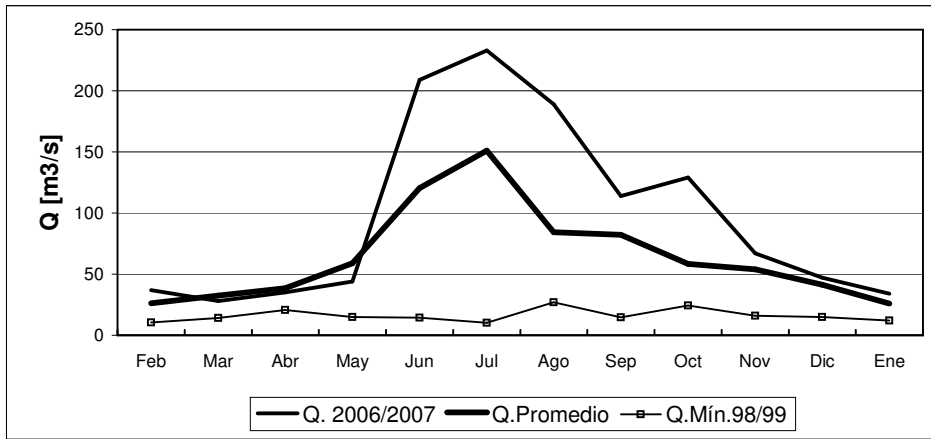
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	92.7	45.7	32.9	30.0	38.0	74.9	50.3	34.7	57.3	87.9	109.0	124.0
Q. Promedio	59.0	35.0	22.0	26.0	32.0	37.0	34.0	36.0	48.0	81.0	105.0	90.0
Q. Mín.98/99	29.0	15.0	15.0	11.0	8.0	7.4	7.4	8.2	8.5	24.0	24.0	44.0

RIO TENO DESPUES DE JUNTA



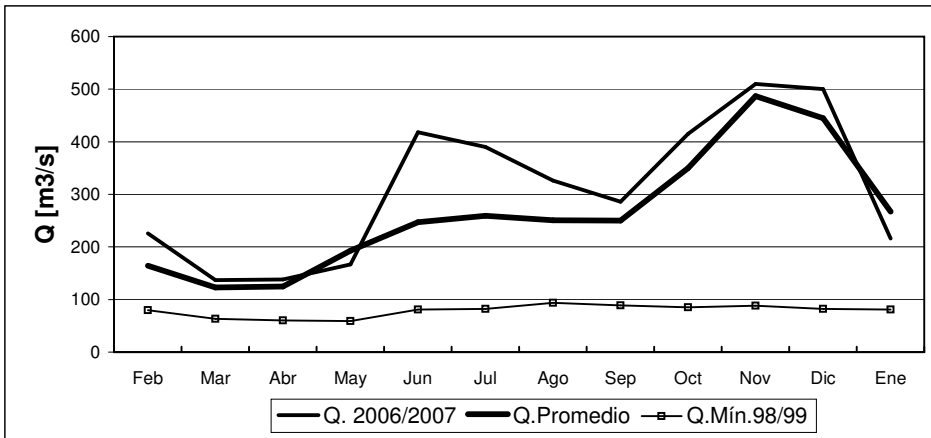
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	68	31	23	39	90	123	82	63	92	133	86	86
Q. Promedio	40	29	22	36	51	55	52	54	69	97	98	64
Q. Mín.98/99	14	11	17	10	8.6	7.4	8.4	11	14	22	16	16

RIO CLARO EN RAUQUEN



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	37	28	35	44	209	233	189	114	129	67	47	34
Q. Promedio	26	33	39	59	121	151	84	82	58	54	41	26
Q. Mín.98/99	10	14	21	15	15	10	27	15	24	16	15	12

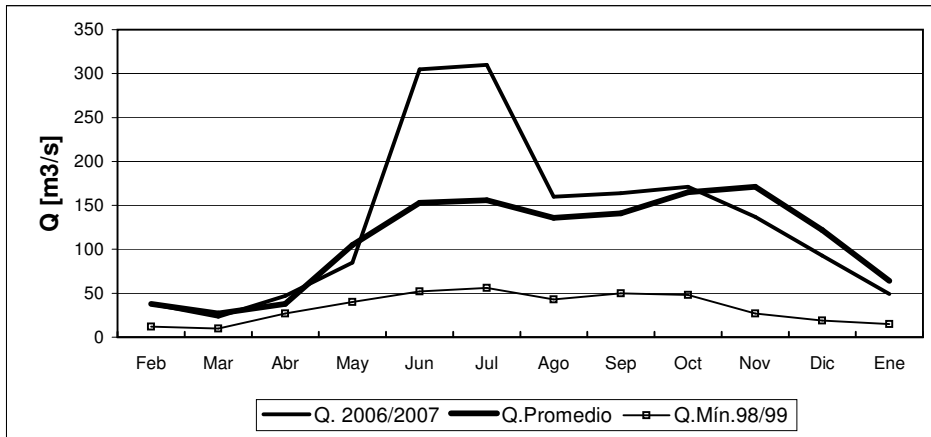
RIO MAULE EN ARMERILLO (R. N.)



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	226	137	138	167	418	390	326	286	415	510	500	216
Q. Promedio	164	123	125	193	247	259	251	250	350	487	445	267
Q. Mín.98/99	80	63	60	59	81	82	94	89	85	88	82	81

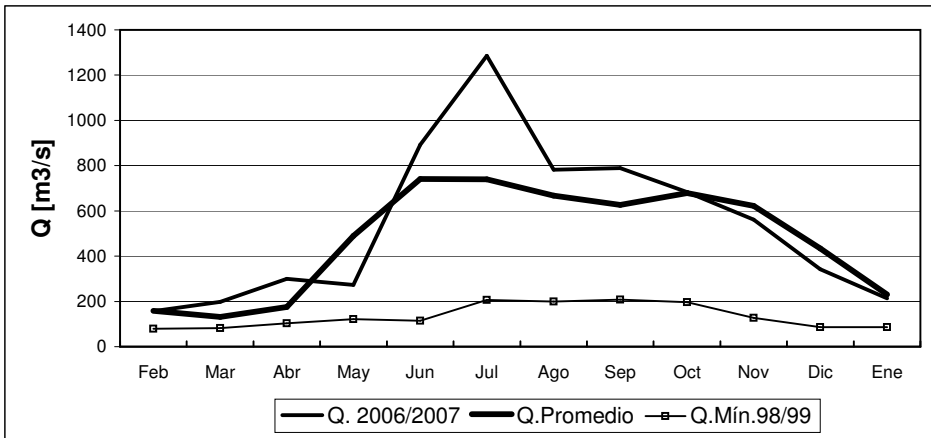
nota: caudal julio 2006 corresponde a últimos 15 días

RIO ÑUBLE EN SAN FABIAN



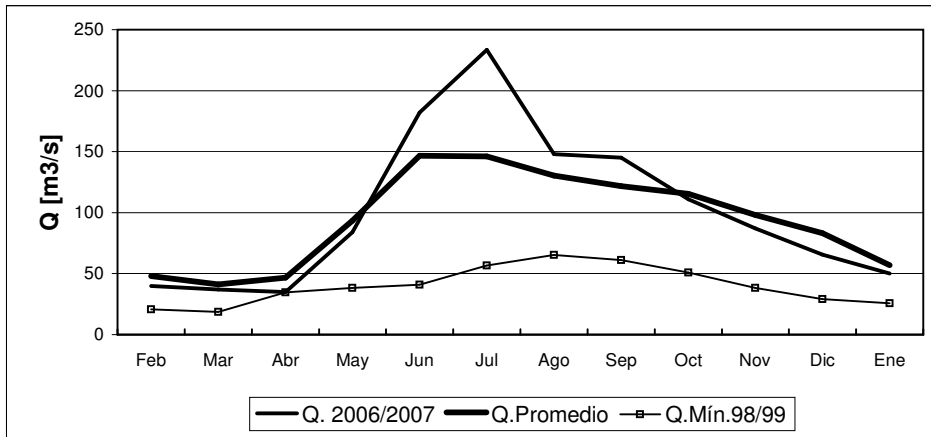
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	38	23	47	85	305	310	160	164	171	137	93	49
Q.Promedio	38	27	38	105	153	156	136	141	165	171	122	64
Q.Mín.98/99	12	10	27	40	52	56	43	50	48	27	19	15

RIO BIO-BIO EN RUCALHUE



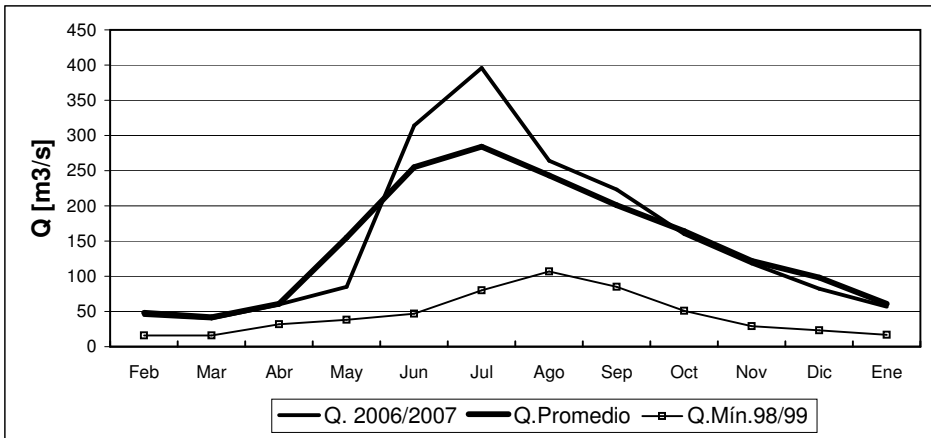
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	157	198	300	273	892	1285	782	789	683	561	342	214
Q.Promedio	158	132	176	489	741	740	668	627	679	622	434	231
Q.Mín.98/99	79	82	103	122	114	207	200	208	197	127	86	86

RIO CAUTIN EN RARI-RUCA



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	40	37	35	84	182	233	148	145	111	87	66	50
Q. Promedio	48	41	47	93	147	146	131	122	116	98	83	57
Q. Mín.98/99	21	19	35	38	41	57	65	61	51	38	29	26

RIO CAUTIN EN CAJON

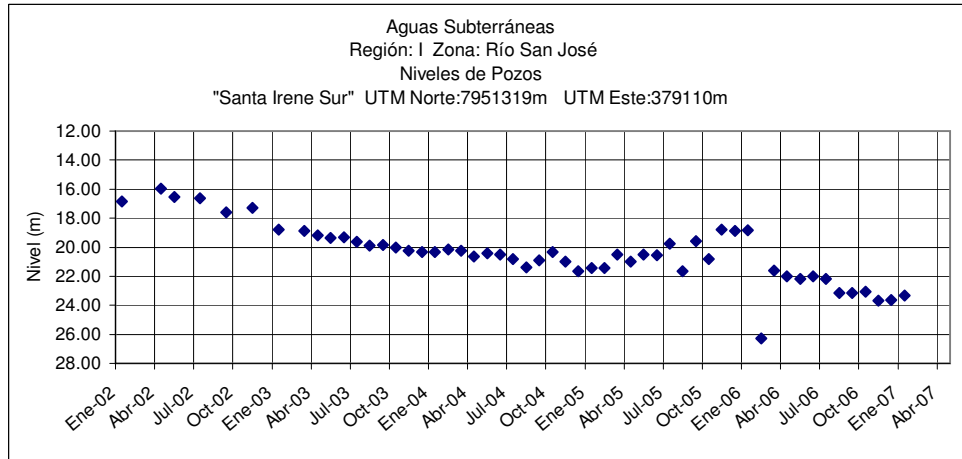


	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2006/2007	45	40	60	85	314	396	264	223	160	118	82	57
Q. Promedio	48	42	61	155	255	284	243	201	164	122	98	61
Q. Mín.98/99	16	16	32	38	47	80	107	85	51	29	23	17

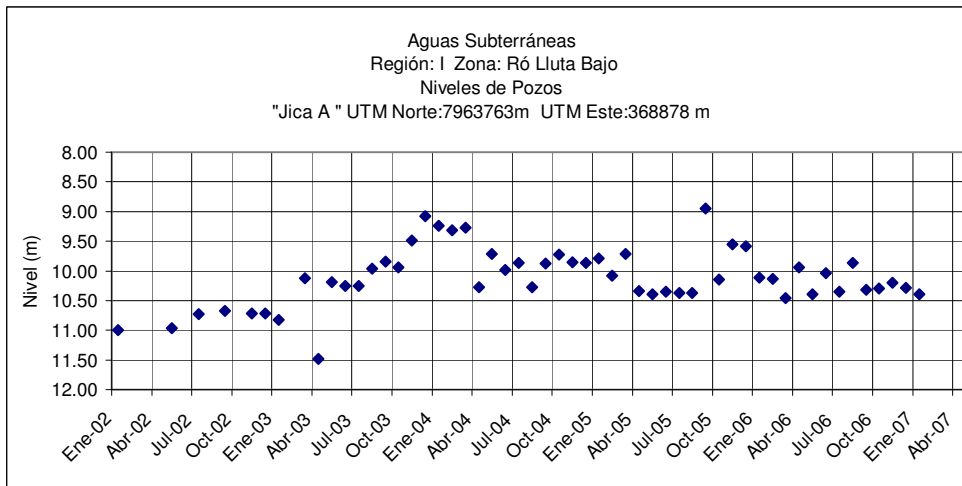
Informe de Aguas Subterráneas

Niveles de Pozos en metros

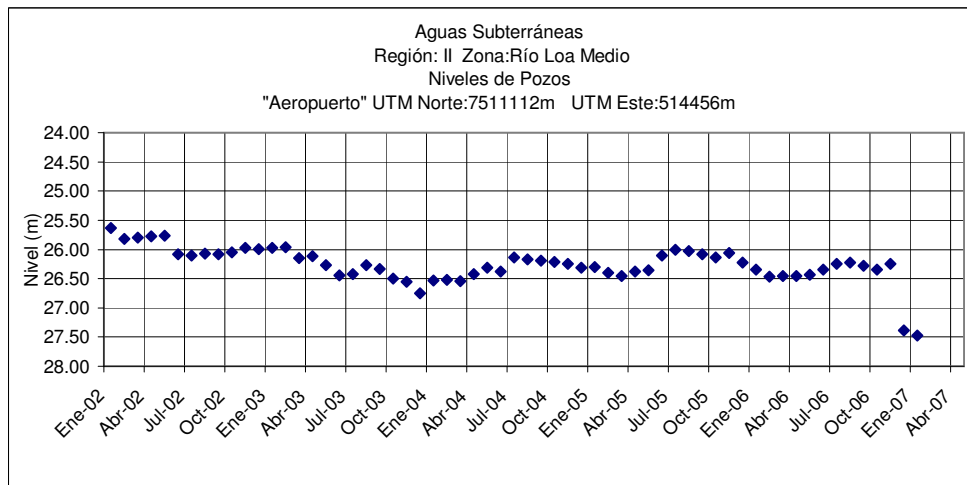
*Gráficos de últimos cinco años.



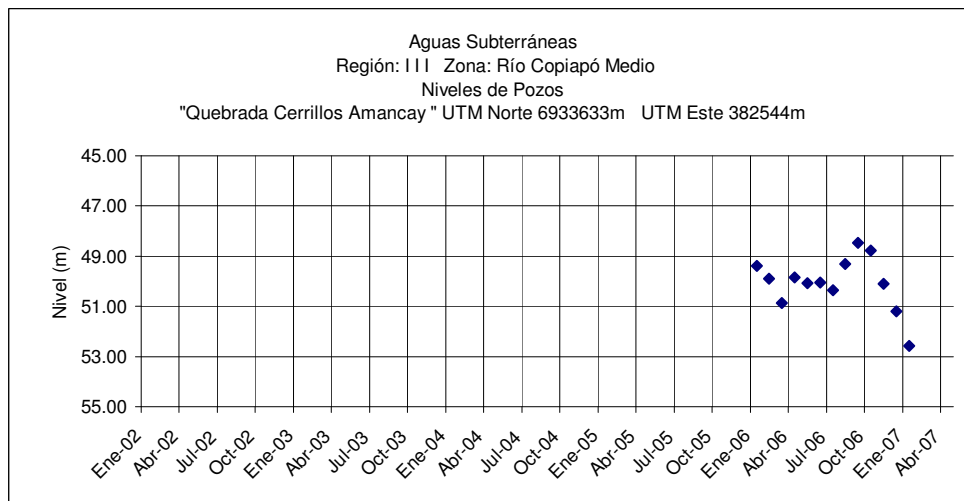
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	26.30	21.59	22.01	22.16	22.01	22.20	23.16	23.13	23.05	23.67	23.64	23.31



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	10.13	10.46	9.94	10.39	10.04	10.35	9.87	10.32	10.30	10.20	10.29	10.39

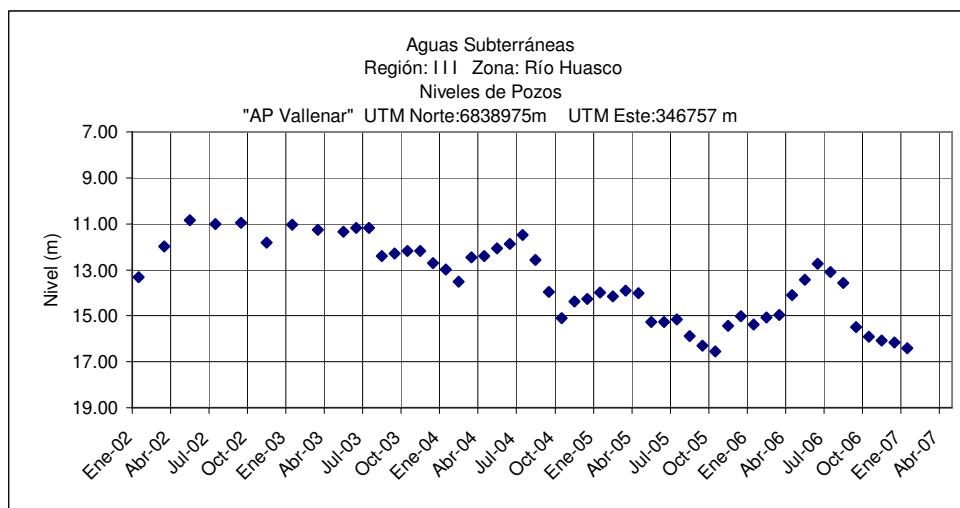


	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	26.47	26.46	26.45	26.43	26.34	26.25	26.22	26.28	26.35	26.25	27.39	27.47

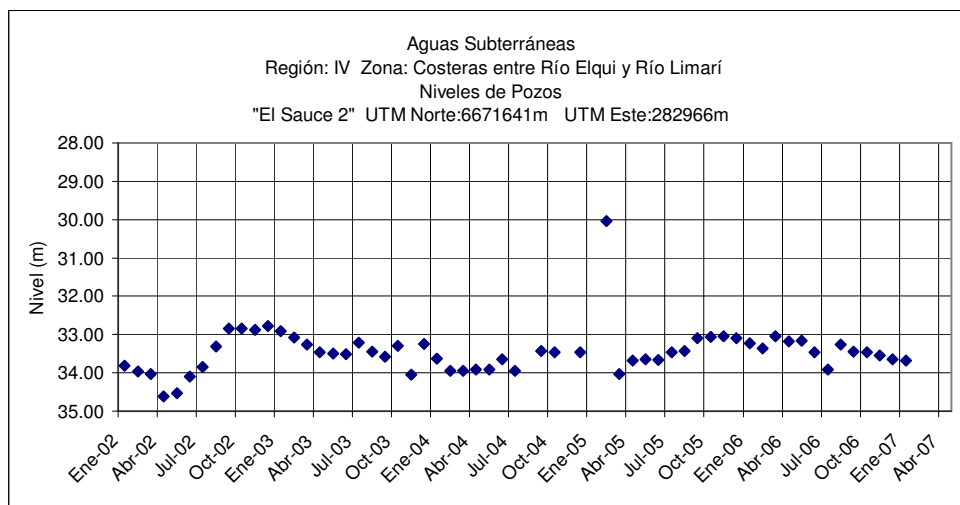


	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	49.89	50.87	49.85	50.08	50.06	50.36	49.30	48.47	48.77	50.09	51.21	52.58

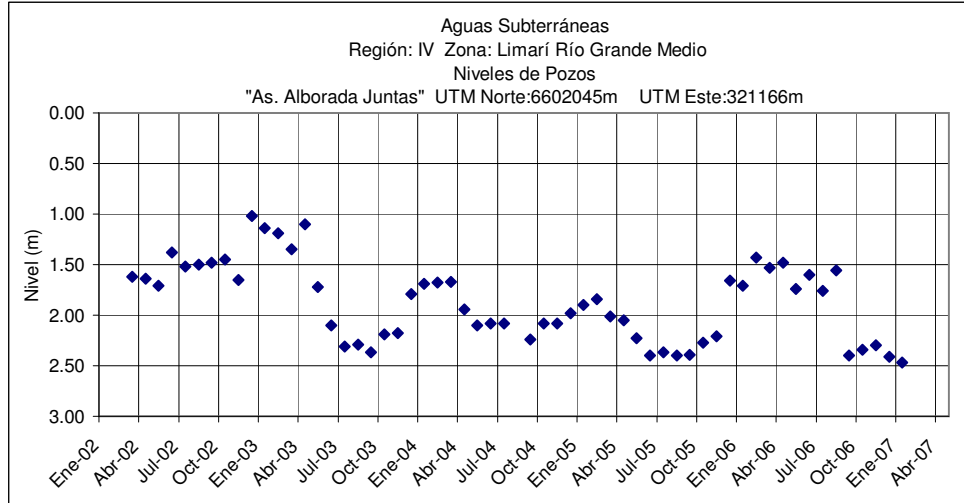
(.) Embancado



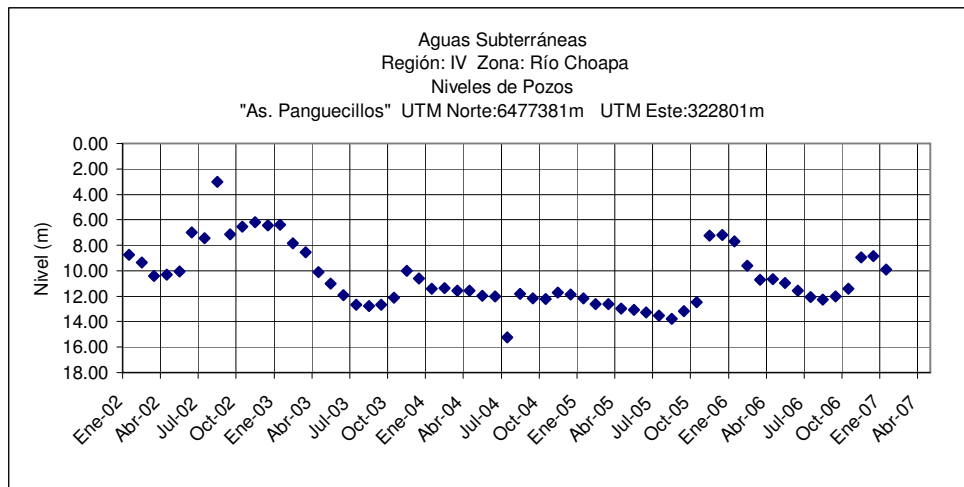
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	15.07	14.97	14.09	13.42	12.73	13.11	13.57	15.50	15.92	16.07	16.17	16.41



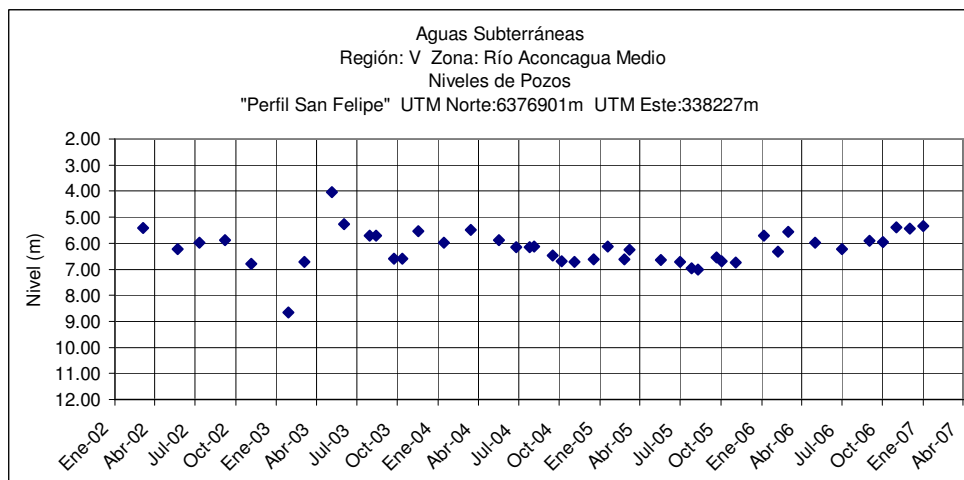
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	33.36	33.04	33.18	33.17	.	33.92	33.27	33.45	33.47	33.54	33.65	33.68



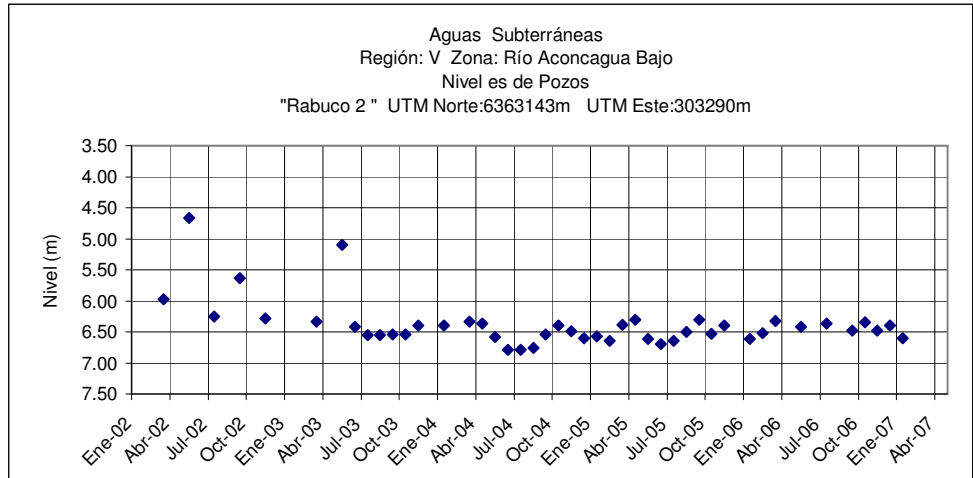
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	1.43	1.53	1.48	1.54	1.60	.	1.56	2.40	2.34	2.30	2.41	2.47



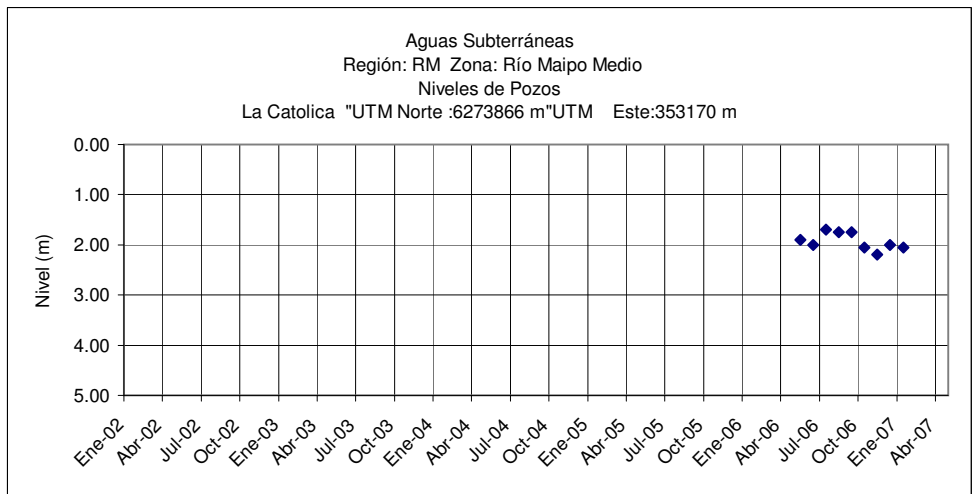
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	9.61	10.72	10.68	10.96	11.58	12.08	12.26	12.00	11.40	8.93	8.85	9.90



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	.	5.57	.	5.89	.	6.22	.	5.91	5.95	5.39	5.45	5.34

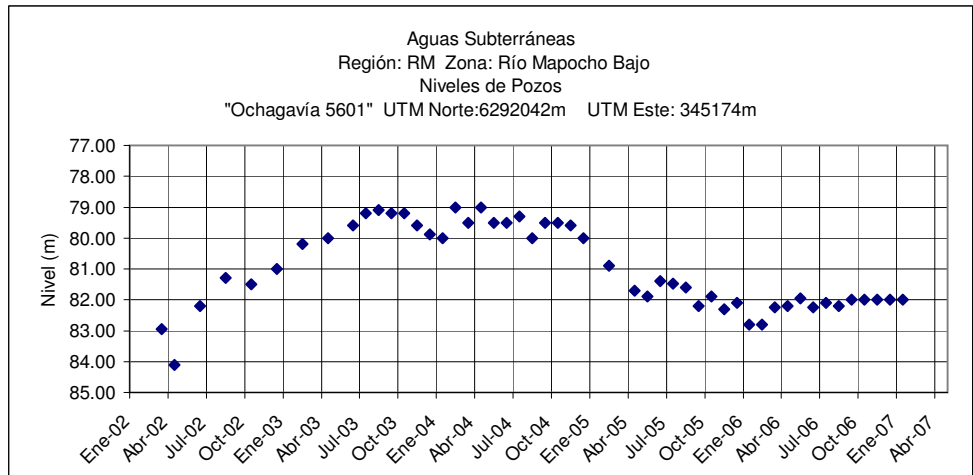


	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	.	6.32	.	6.42	.	6.37	.	6.48	6.35	6.48	6.40	6.60

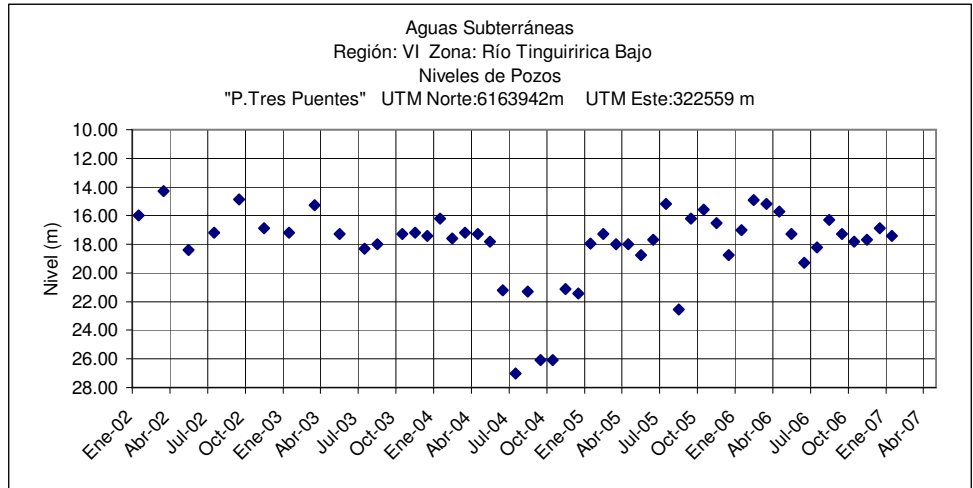


	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	.	.	.	1.90	2.00	1.70	1.75	1.75	2.05	2.20	2.00	2.05

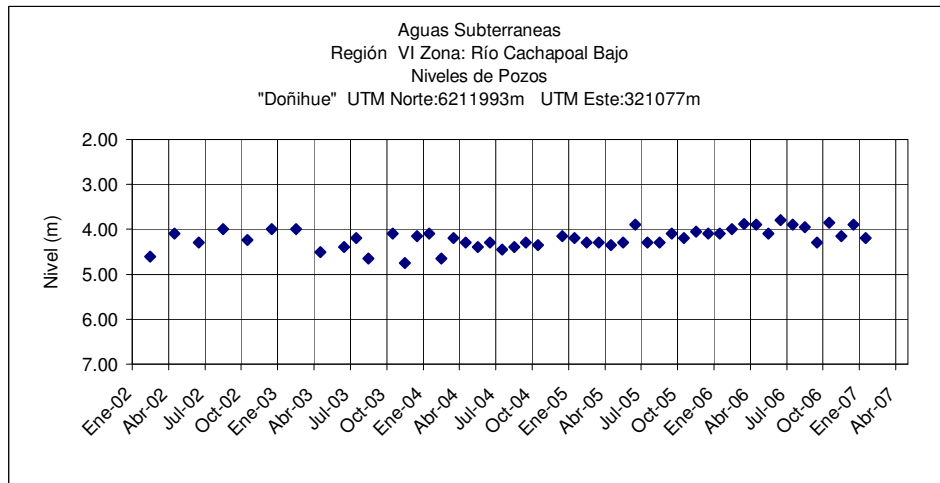
(.) Embancado



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	82.80	82.25	82.20	81.95	82.25	82.10	82.20	82.00	82.00	82.00	82.00	82.00



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	14.90	15.20	15.70	17.30	19.30	18.20	16.30	17.30	17.80	17.70	16.90	17.40



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2006-2007	4.00	3.88	3.90	4.10	3.80	3.90	3.95	4.30	3.85	4.15	3.90	4.20