MINISTERIO DE OBRAS PUBLICAS DIRECCION GENERAL DE AGUAS

Boletín N° : 346 Mes : Febrero 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 boletin
- -Caudales en tiempo real

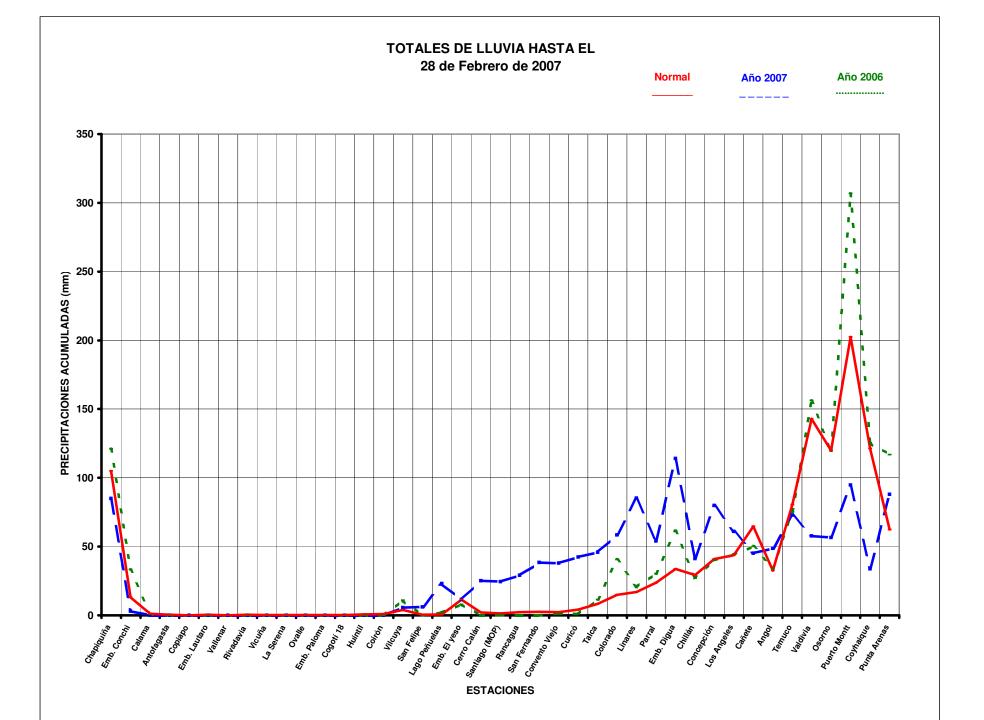
NOTA: Datos provisorios sujetos a modificaciones posteriores

INFORME PLUVIOMETRICO NACIONAL Nº02

		_TOTALES	AL 28	DE FEBRERO	
ESTACIONES	FEBRERO	2007 (mm)	2006 (mm)	PROMEDIO (mm)	EXCESO C DÉFICIT (%)
CENTRAL CHAPIQUIÑA	34.0	85.0	121.0	105.0*	 - 19
EMBALSE CONCHI	0.5	3.0	33.2	13.0*	- 77
CALAMA	0.0	0.0	0.7	1.2	-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	0.6	-100
VALLENAR	0.0	0.0	0.0	0.0	0
RIVADAVIA	0.0	0.0	0.0	0.6	-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	0.1	0
EMBALSE PALOMA	0.0	0.0	0.0	0.3	-100
COGOTÍ 18	0.0	0.0	0.0	0.1	-100
HUINTIL	0.0	0.0	0.0	0.7	-100
COIRÓN	0.0	0.0	0.0	1.0	-100
VILCUYA	3.0	5.5	11.0	4.0	39
SAN FELIPE	6.1	6.1	0.0	0.5	>200
LAGO PEÑUELAS	23.0	23.0	2.0	0.7	>200
EMBALSE EL YESO	11.5	11.5	7.8	11.5	0
CERRO CALÁN	25.1	25.1	0.0	2.2	>200
SANTIAGO (MOP)	24.5	24.5	0.2	1.4	>200
RANCAGUA	29.2	29.2	0.0	2.4	>200
SAN FERNANDO	38.4	38.4	0.0	2.6	>200
CONVENTO VIEJO	38.0	38.0	1.5	2.3	>200
CURICO	40.1	42.4	1.0	4.2	>200
TALCA	42.4	45.8	11.3	8.3	>200
COLORADO	48.5	58.5	40.5	14.8	>200
LINARES	63.5	85.2	20.7	17.0	>200
PARRAL	49.5	54.0	30.3	23.8	127
EMBALSE DIGUA	92.0	114.0	61.5	33.8	>200
CHILLÁN	36.1	41.3	27.0	29.4	40
CONCEPCIÓN	44.2	79.8	40.1	41.0	95
LOS ÁNGELES	39.5	61.0	44.1	43.6	40
CAÑETE	34.3	45.2	50.0	64.7	- 30
ANGOL	29.2	48.7	34.0	32.5	50
TEMUCO	59.9	72.9	75.1	80.5	- 9
VALDIVIA	37.9	57.7	156.2	142.8	- 60
OSORNO	35.8	56.6	119.7	119.8	- 53
PUERTO MONTT	58.9	94.7	306.8	202.4	- 53
COYHAIQUE	27.2	33.7	125.5	121.3	- 72
PUNTA ARENAS	49.4	87.9	116.8	62.5	41

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

 $[\]star$: Promedios calculados para períodos inferiores a 30 años Valores expresados en milímetros (1 mm = 1 lt x m2)



ESTADO DE EMBALSES

PROMEDIO

Ultimo día del mes (Volúmenes en mill-m³)

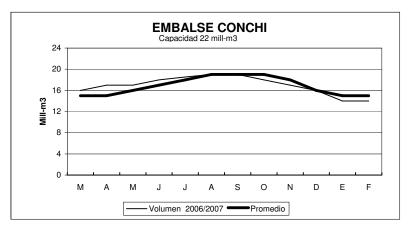
				INOIDDIO		
				HISTORICO	Febr	ero
EMBALSE	REGION	CUENCA	CAPACIDAD	MENSUAL	2007	2006
Conchi	II	Loa	22	15	14	16
Lautaro	III	Copiapó	35	11	0	12
Santa Juana	III	Huasco	166	107	128	166
La Laguna	IV	Elqui	40	23	29	31
Puclaro	IV	Elqui	200	73	197	200
Recoleta	IV	Limarí	100	62	71	100
La Paloma	IV	Limarí	748	402	489	559
Cogotí	IV	Limarí	150	79	53	92
Culimo	IV	Quilimarí	10	3.5	0.4	1.2
Corrales	IV	Illapel	50	35	47	49
Peñuelas	V	Peñuelas	95	23	24	24
El Yeso	RM	Maipo	256	203	213	246
Rungue	RM	Maipo	2.2	0.5	0.7	0.6
Rapel	VI	Rapel	695	614	613	605
Colbún	VII	Maule	1544	1252	1308	1462
Lag. Maule	VII	Maule	1420	991	1411	1134
Bullileo	VII	Maule	60	19	35	24
Digua	VII	Maule	220	48	29	34
Tutuvén	VII	Maule	15	3.8	4	4
Coihueco	VIII	Itata	29	13	13.4	14
Lago Laja (&) VIII	Bio-Bio	5582	3517	3282	2960

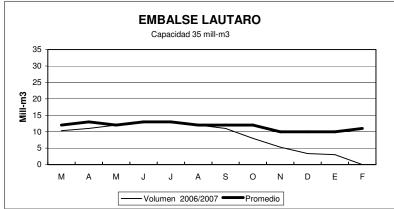
RESUMEN ANUAL

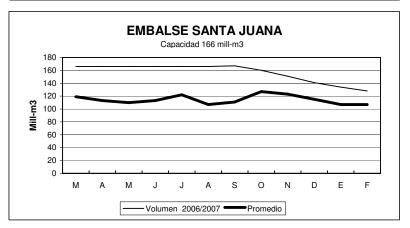
2006–2007												
EMBALSE	М	A	М	J	J	A	S	0	N	D	E	F
Conchi	16	17	17	18	19	19	19	18	17	16	14	14
Lautaro	10	11	12	13	13	12	11	8	5	3	3	0
Santa Juana	166	166	166	166	166	166	167	160	151	141	134	128
La Laguna	28	32	34	33	32	31	32	35	35	35	33	29
Puclaro	200	200	200	196	197	197	192	189	192	195	196	197
Recoleta	92	94	95	97	97	95	91	87	82	79	75	71
La Paloma	542	536	539	551	575	591	590	587	575	549	517	489
Cogotí	86	82	79	79	83	85	82	81	75	67	59	53
Culimo	0.4	0.1	0.4	0.4	0.7	1.3	1.4	1.6	1.7	1.6	1.0	0.4
Corrales	49	48	48	48	50	51	50	50	50	49	48	47
Peñuelas	22	21	20	21	30	34	33	32	29	26	24	24
El Yeso	249	243	241	235	230	215	206	178	176	203	214	213
Rungue	0.3	0.2	0.2	0.3	2.0	2.0	2.0	2.0	1.8	1.3	1.0	0.7
Rapel	530	479	511	605	605	622	599	636	626	625	617	613
Colbún	1148	902	654	1078	1522	1491	1525	1555	1544	1544	1439	1308
Lag. Maule	1144	1127	1115	1159	1202	1234	1254	1283	1332	1408	1420	1411
Bullileo	0	0	7	30	60	60	60	60	60	60	50	35
Digua	11	8.6	2.7	93	179	219	220	220	220	155	85	29
Tutuvén	2.0	3.4	3.0	10	11	12	12	14	15	10	6	4
Coihueco	6.6	3.9	6	10	16	27	29	30	29	27	20	13.4
Lago Laja (&)	2709	2566	2365	2620	2989	3083	3224	3421	3590	3689	3522	3282

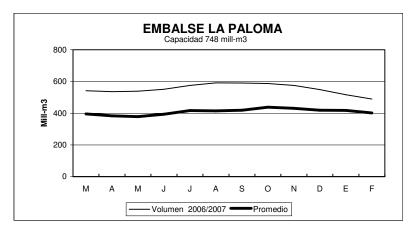
(&): Volumen sobre cota 1300 msnm

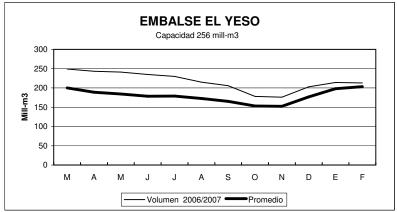
ESTADO DE EMBALSES

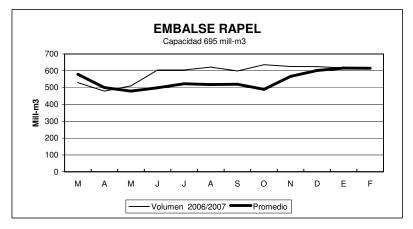


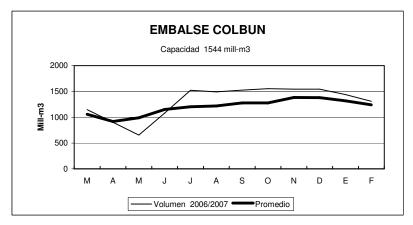


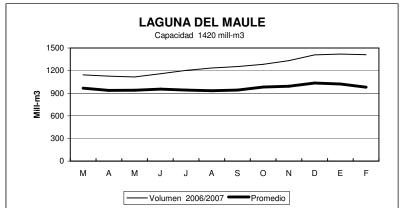


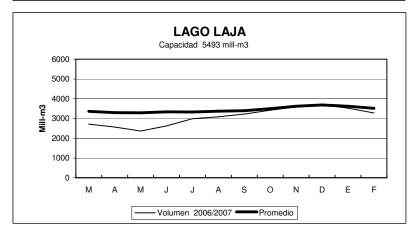








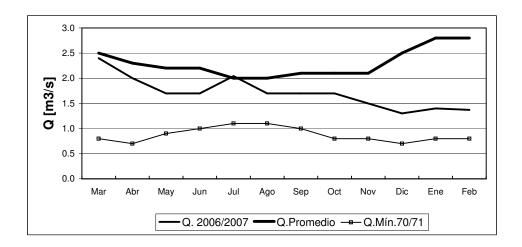




Feb-07

Caudales medios mensuales en m3/seg

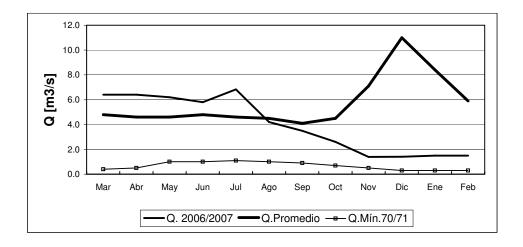
RIO COPIAPO EN LA PUERTA



Q. 2006/2007 Q.Promedio Q.Mín.70/71

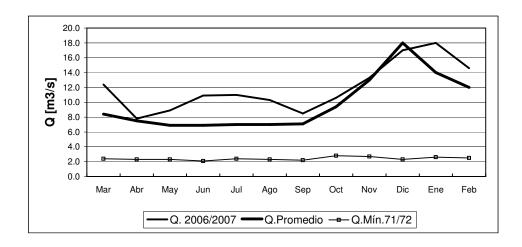
Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2.4	2.0	1.7	1.7	2.0	1.7	1.7	1.7	1.5	1.3	1.4	1.4
2.5	2.3	2.2	2.2	2.0	2.0	2.1	2.1	2.1	2.5	2.8	2.8
8.0	0.7	0.9	1.0	1.1	1.1	1.0	8.0	0.8	0.7	8.0	0.8

RIO HUASCO EN ALGODONES



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

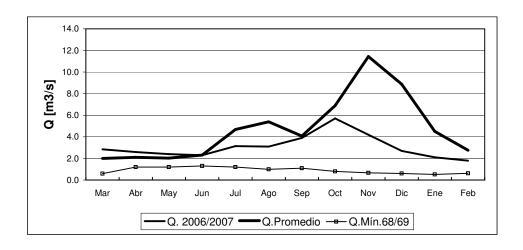
RIO ELQUI EN ALGARROBAL



Q. 2006/2007 Q.Promedio Q.Mín.71/72

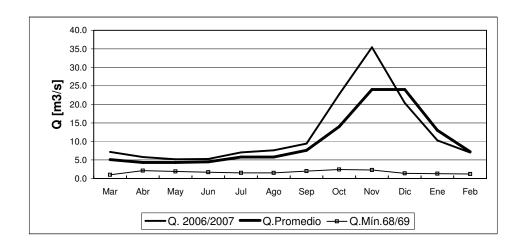
Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
12.4	7.8	8.9	10.9	11.0	10.3	8.5	10.6	13.3	17.0	18.0	14.6
8.4	7.5	6.9	6.9	7.0	7.0	7.1	9.4	13.0	18.0	14.0	12.0
2.4	2.3	2.3	2.1	2.4	2.3	2.2	2.8	2.7	2.3	2.6	2.5

RIO GRANDE EN LAS RAMADAS



	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
Q. 2006/2007	2.9	2.6	2.4	2.3	3.1	3.1	3.9	5.7	4.2	2.7	2.1	1.8
Q.Promedio	2.0	2.1	2.0	2.3	4.7	5.4	4.1	6.9	11.4	8.9	4.5	2.8
Q.Mín.68/69	0.6	1.2	1.2	1.3	1.2	1.0	1.1	8.0	0.7	0.6	0.5	0.6

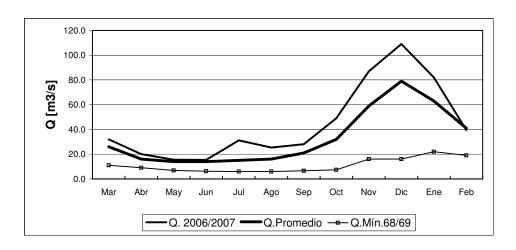
RIO CHOAPA EN CUNCUMEN



Q. 2006/2007 Q.Promedio Q.Mín.68/69

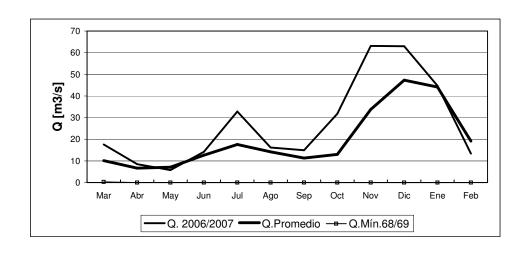
Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
7.2	5.8	5.2	5.3	7.1	7.6	9.4	22.7	35.4	20.4	10.3	7.0
5.1	4.3	4.3	4.5	5.8	5.8	7.6	14.0	24.0	24.0	13.0	7.2
1.0	2.1	1.9	1.7	1.5	1.5	2.0	2.4	2.3	1.4	1.3	1.2

RIO ACONCAGUA EN CHACABUQUITO



	war	Abr	way	Jun	Jui	Ago	Sep	Oct	NOV	DIC	⊨ne	reb
Q. 2006/2007	31.9	20.0	15.5	15.4	31.2	25.4	28.0	49.0	87.0	109.0	82.0	39.4
Q.Promedio	26.0	16.0	14.0	14.0	15.0	16.0	21.0	32.0	59.0	79.0	63.0	41.0
Q.Mín.68/69	11.0	9.1	6.9	6.2	5.9	5.9	6.6	7.4	16.0	16.0	22.0	19.0

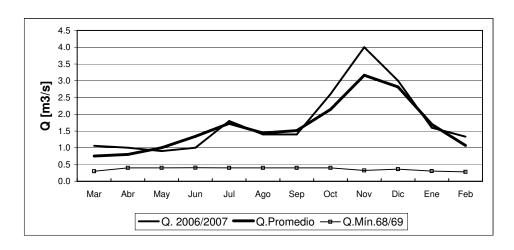
RIO ACONCAGUA EN SAN FELIPE



Q. 2006/2007 Q.Promedio Q.Mín.68/69

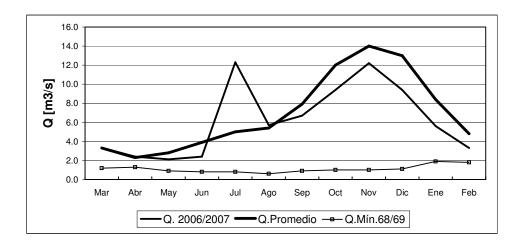
Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
17.6	8.5	5.8	14.2	32.8	16.2	14.9	31.8	63.1	63.0	44.7	13.4
10.2	6.7	7.1	12.7	17.6	14.2	11.3	13.0	33.8	47.3	44.1	19.1
0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

ESTERO ARRAYAN EN LA MONTOSA



	Mar	Abr	мау	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
Q. 2006/2007	1.1	1.0	0.9	1.0	1.8	1.4	1.4	2.6	4.0	3.0	1.6	1.3
Q.Promedio	0.8	8.0	1.0	1.3	1.7	1.4	1.5	2.1	3.2	2.8	1.7	1.1
Q.Mín.68/69	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3

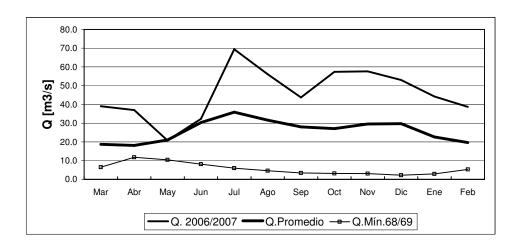
RIO MAPOCHO EN LOS ALMENDROS



Q. 2006/2007 Q.Promedio Q.Mín.68/69

Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
3.3	2.4	2.1	2.4	12.3	5.7	6.7	9.4	12.2	9.4	5.6	3.3
3.3	2.3	2.8	3.9	5.0	5.4	7.9	12.0	14.0	13.0	8.4	4.8
1.2	1.3	0.9	8.0	8.0	0.6	0.9	1.0	1.0	1.1	1.9	1.8

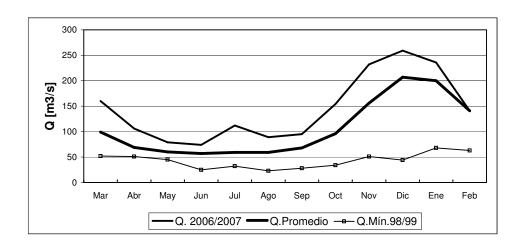
RIO MAPOCHO EN RINCONADA DE MAIPU



Q. 2006/2007 Q.Promedio Q.Mín.68/69

Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
39.0	37.0	20.8	32.3	69.4	56.1	43.7	57.4	57.6	53.0	44.2	38.7
18.7	18.1	21.0	30.3	35.9	31.6	28.0	27.1	29.5	29.7	22.6	19.6
6.5	11.8	10.4	8.1	6.0	4.6	3.4	3.2	3.1	2.2	2.9	5.3

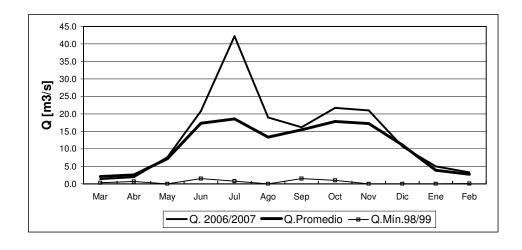
RIO MAIPO EN EL MANZANO



Q. 2006/2007 Q.Promedio Q.Mín.98/99

Mar	Abr	мау	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
160	106	79	73.8	112	89	95	154	232	259	236	141
99	69	60	57	59	59	68	96	156	207	200	141
52	51	45	25	32	23	28	34	51	44	68	63

RIO CLARO EN EL VALLE 2

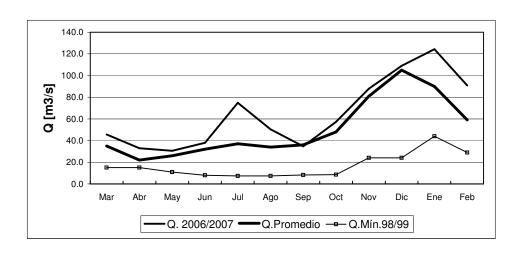


Q. 2006/2007
Q.Promedio
Q.Mín.98/99

Mar	Abr	Мау	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
1.4	1.9	7.6	20.8	42.2	19.0	16.2	21.7	21.0	10.7	5.0	3.3 *
2.1	2.6	7.2	17.3	18.6	13.4	15.5	17.9	17.2	11.1	3.9	2.7
0.3	0.7	0.0	1.5	0.8	0.0	1.5	1.0	0.0	0.0	0.0	0.1

^{*} valor de Aforo

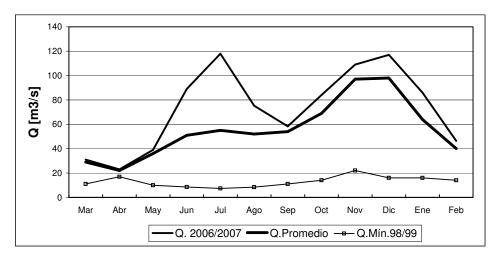
RIO TINGUIRIRICA BAJO BRIONES



Q. 2006/2007 Q.Promedio Q.Mín.98/99

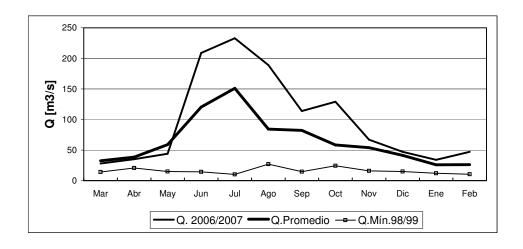
Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
45.7	32.9	30.5	38.0	74.9	50.3	34.7	57.3	87.9	109.0	124.4	90.8
35.0	22.0	26.0	32.0	37.0	34.0	36.0	48.0	81.0	105.0	90.0	59.0
15.0	15.0	11.0	8.0	7.4	7.4	8.2	8.5	24.0	24.0	44.0	29.0

RIO TENO DESPUES DE JUNTA



	war	Abr	iviay	Jun	Jui	Ago	Sep	Oct	NOV	DIC	⊨ne	reb
Q. 2006/2007	31	23	39	89	118	75	58	84	109	117	86	46
Q.Promedio	29	22	36	51	55	52	54	69	97	98	64	40
Q.Mín.98/99	11	17	10	8.6	7.4	8.4	11	14	22	16	16	14

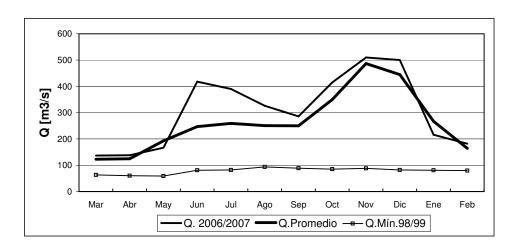
RIO CLARO EN RAUQUEN



Q. 2006/2007 Q.Promedio Q.Mín.98/99

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

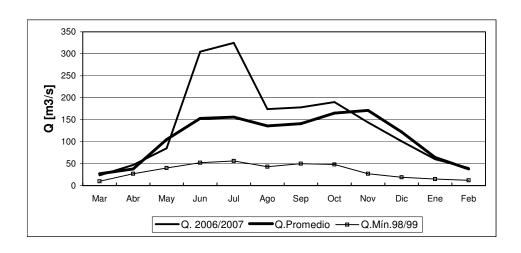
RIO MAULE EN ARMERILLO (R. N.)



Q. 2006/2007 Q.Promedio Q.Mín.98/99

Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
137	138	167	418	390	326	286	415	510	500	216	182
123	125	193	247	259	251	250	350	487	445	267	164
63	60	59	81	82	94	89	85	88	82	81	80

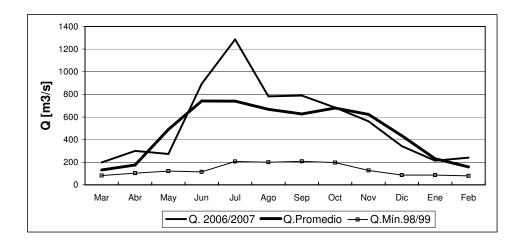
RIO ÑUBLE EN SAN FABIAN



Q. 2006/2007 Q.Promedio Q.Mín.98/99

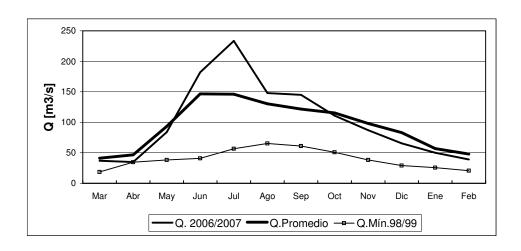
Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
23	47	85	305	325	174	178	190	144	101	60	40
27	38	105	153	156	136	141	165	171	122	64	38
10	27	40	52	56	43	50	48	27	19	15	12

RIO BIO-BIO EN RUCALHUE



	iviar	ADr	iviay	Jun	Jui	Ago	Sep	OCI	NOV	DIC	⊏ne	reb
Q. 2006/2007	198	300	273	892	1285	782	789	683	561	342	214	240
Q.Promedio	132	176	489	741	740	668	627	679	622	434	231	158
Q.Mín.98/99	82	103	122	114	207	200	208	197	127	86	86	79

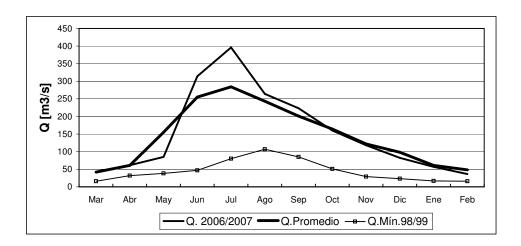
RIO CAUTIN EN RARI-RUCA



Q. 2006/2007 Q.Promedio Q.Mín.98/99

Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
37	35	84	182	233	148	145	111	87	66	50	39
41	47	93	147	146	131	122	116	98	83	57	48
19	35	38	41	57	65	61	51	38	29	26	21

RIO CAUTIN EN CAJON

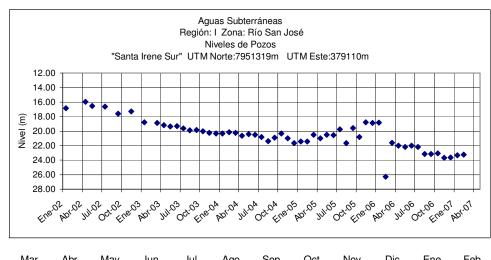


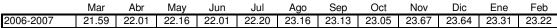
	Mar	Abr	мау	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	⊦eb
Q. 2006/2007	42	61	85	314	396	264	223	160	118	82	57	36
Q.Promedio	42	61	155	255	284	243	201	164	122	98	61	48
Q.Mín.98/99	16	32	38	47	80	107	85	51	29	23	17	16

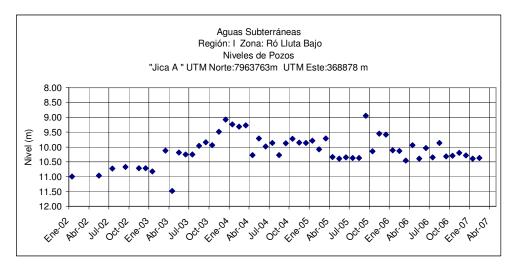
Informe de Aguas Subterráneas

Niveles de Pozos en metros

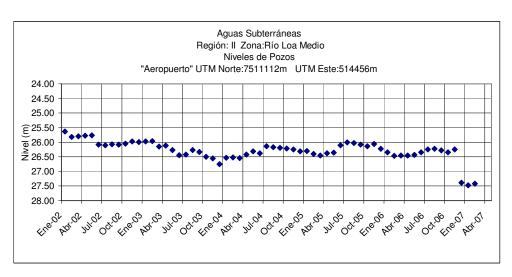
*Gráficos de últimos cinco años.



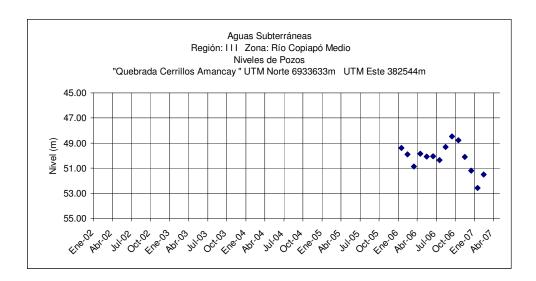




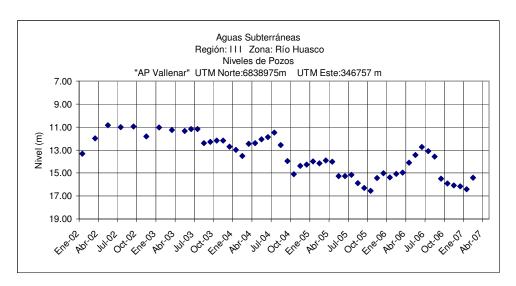
	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007	10.46	9.94	10.39	10.04	10.35	9.87	10.32	10.30	10.20	10.29	10.39	10.37



	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007	26.46	26.45	26.43	26.34	26.25	26.22	26.28	26.35	26.25	27.39	27.47	27.42



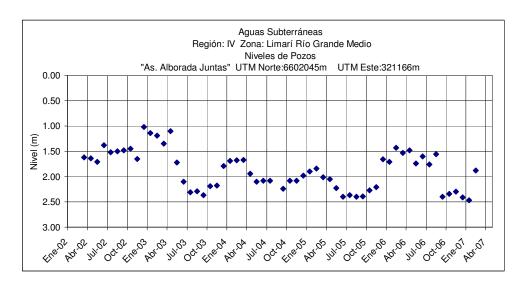
	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007	50.87	49.85	50.08	50.06	50.36	49.30	48.47	48.77	50.09	51.21	52.58	51.50



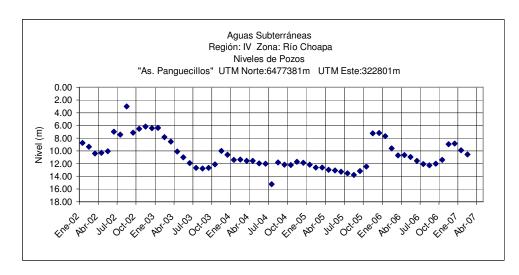
	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007	14.97	14.09	13.42	12.73	13.11	13.57	15.50	15.92	16.07	16.17	16.41	15.41



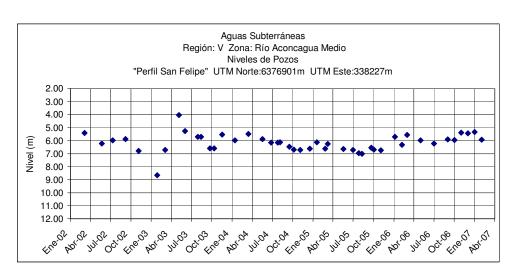
	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007	33.04	33.18	33.17	•	33.92	33.27	33.45	33.47	33.54	33.65	33.68	33.83



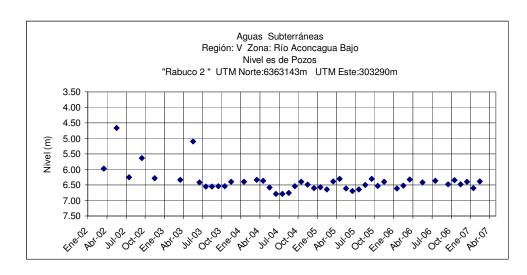
	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb	
2006-2007	1.53	1.48	1.54	1.60		1.56	2.40	2.34	2.30	2.41	2.47	1.88	1



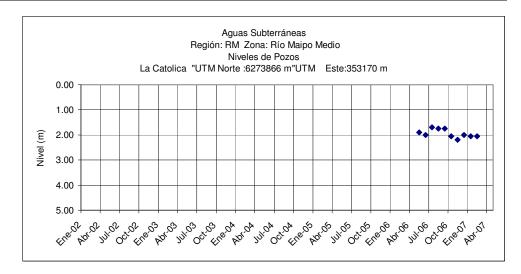
	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007	10.72	10.68	10.96	11.58	12.08	12.26	12.00	11.40	8.93	8.85	9.90	10.55



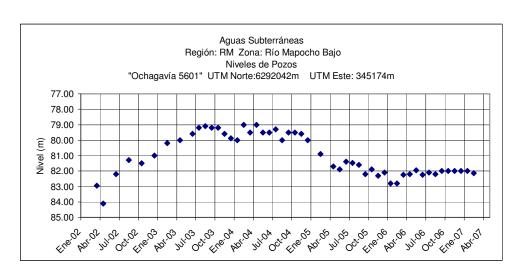
	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007	5.57		5.89		6.22		5.91	5.95	5.39	5.45	5.34	5.93



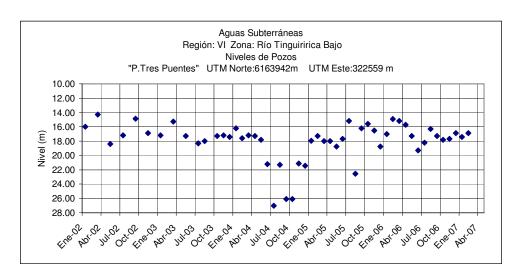
	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007	6.32		6.42		6.37		6.48	6.35	6.48	6.40	6.60	6.39



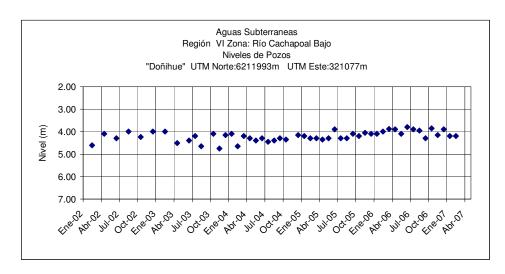
	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007			1.90	2.00	1.70	1.75	1.75	2.05	2.20	2.00	2.05	2.05



	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb
2006-2007	82.25	82.20	81.95	82.25	82.10	82.20	82.00	82.00	82.00	82.00	82.00	82.15



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



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