# A-PDF MERGER DEMAS PUBLICAS DIRECCION GENERAL DE AGUAS

 Boletín Nº
 : 333

 Mes
 : Enero

 Año
 : 2006

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: .

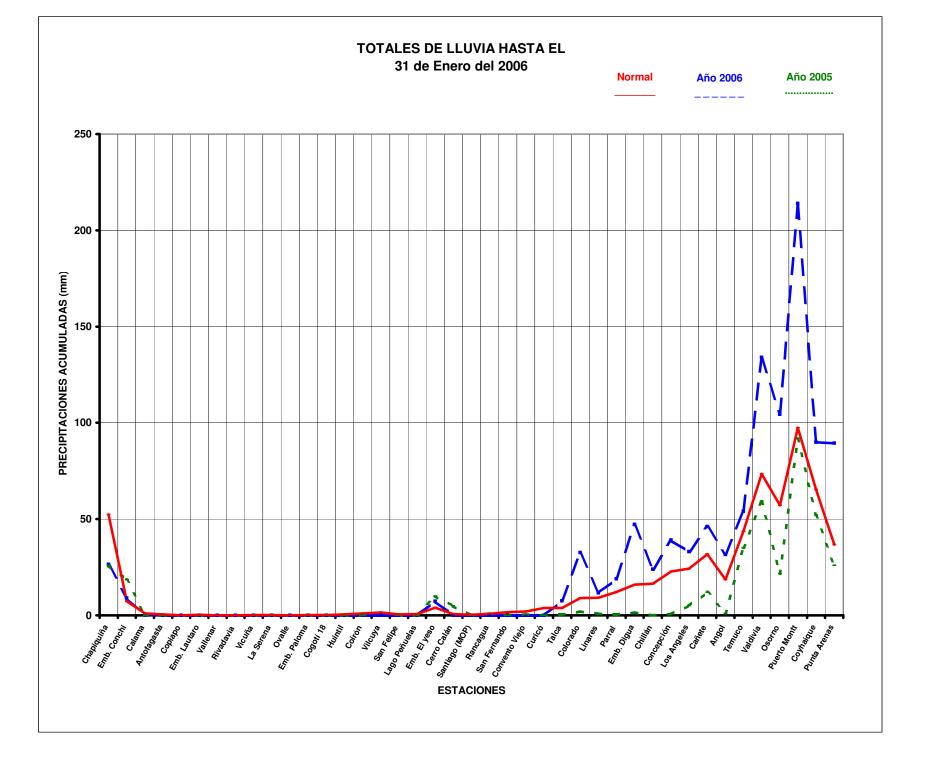
- -Los informes de este boletin
- -Caudales en tiempo real

NOTA: Datos provisorios sujetos a modificaciones posteriores

INFORME PLUVIOMETRICO NACIONAL Nº01

		TOTALES	AL 31	DE ENERO	
		2006	2005	DDOMED TO	EXCESO O
EGENGTONEG	ENEDO	2006	2005	PROMEDIO	DÉFICIT
ESTACIONES	ENERO	(mm)	(mm)	(mm)	(%) 
CENTRAL CHAPIQUIÑA	26.5	26.5	26.0	52.4	- 49
EMBALSE CONCHI	9.0	9.0	18.5	7.2*	24
CALAMA	0.2	0.2	0.0	0.9	- 78
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	0.0	0.0	1.5	1.5	-100
SAN FELIPE	0.0	0.0	0.0	0.5	-100
LAGO PEÑUELAS	0.0	0.0	0.0	0.7	-100
EMBALSE EL YESO	7.3	7.3	10.0	3.9	87
CERRO CALAN	0.0	0.0	4.8	0.7	-100
SANTIAGO (MOP)	0.0	0.0	0.0	0.4	-100
RANCAGUA	0.0	0.0	1.0	0.9	-100
SAN FERNANDO	0.0	0.0	0.0	1.6	-100
CONVENTO VIEJO	0.0	0.0	0.5	2.0	-100
CURICO	0.0	0.0	0.0	3.8	-100
TALCA	7.5	7.5	0.3	3.8	97
COLORADO	32.5	32.5	2.0	9.0	>200
LINARES	11.7	11.7	0.9	9.2	27
PARRAL	19.0	19.0	0.5	12.1	57
EMBALSE DIGUA	47.2	47.2	1.5	15.9	197
CHILLÁN	24.0	24.0	0.0	16.4	46
CONCEPCIÓN	39.1	39.1	0.6	22.8	71
LOS ÁNGELES	33.0	33.0	5.0	24.2	36
CAÑETE	46.0	46.0	12.0	31.8	45
ANGOL	31.5	31.5	1.0	18.7	68
TEMUCO	54.1	54.1	35.0	43.6	24
VALDIVIA	133.9	133.9	59.1	73.4	82
OSORNO	104.4	104.4	21.6	57.2	82
PUERTO MONTT	213.9	213.9	91.7	97.4	120
COYHAIQUE	90.0	90.0	52.1	65.3*	38
PUNTA ARENAS	89.4	89.4	25.9	36.8	143

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)



#### **ESTADO DE EMBALSES**

Ultimo día del mes (Volúmenes en mill-m³)

				TROTIDDIO		
				HISTORICO	Ene	ro
EMBALSE	REGION	CUENCA	CAPACIDAD	MENSUAL	2006	2005
Conchi	II	Loa	22	15	15	17
Lautaro	III	Copiapó	35	11	11	8
Santa Juana	III	Huasco	166	107	159	130
La Laguna	IV	Elqui	40	23	36	31
Puclaro	IV	Elqui	200	72	200	153
Recoleta	IV	Limarí	100	65	91	77
La Paloma	IV	Limarí	748	418	574	485
Cogotí	IV	Limarí	150	85	98	66
Culimo	IV	Quilimarí	10	4.1	1.9	3.3
Corrales	IV	Illapel	50	35	49	47
Peñuelas	V	Peñuelas	95	24	27	33
El Yeso	RM	Maipo	256	198	233	212
Rungue	RM	Maipo	2.2	8.0	1.0	8.0
Rapel	VI	Rapel	695	616	634	640
Colbún	VII	Maule	1544	1332	1519	1361
Lag. Maule	VII	Maule	1420	1031	1088	924
Bullileo	VII	Maule	60	42	49	40
Digua	VII	Maule	220	100	93	91
Tutuvén	VII	Maule	15	6.5	6.1	8.1
Coihueco	VIII	Itata	29	19	22	20
Lago Laja (&	) VIII	Bio-Bio	5582	3619	3104	2314

#### RESUMEN ANUAL

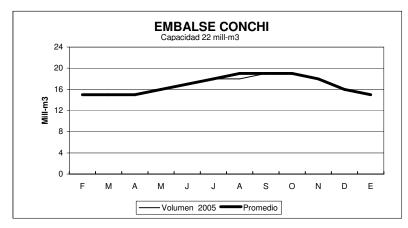
2005-2006

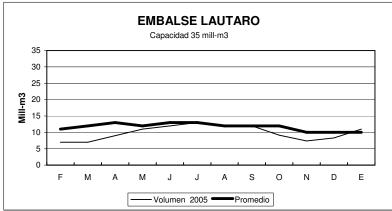
PROMEDIO

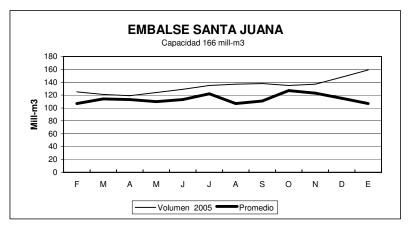
EMBALSE	F	М	A	M	J	J	A	S	0	N	D	E	
Conchi	15	15	15	16	17	18	18	19	19	18	16	15	
Lautaro	7	7	9	11	12	13	12	12	9	7	8	11	
Santa Juana	125	121	119	124	129	135	137	138	135	137	148	159	
La Laguna	30	25	26	25	27	29	31	32	36	37	38	36	
Puclaro	142	134	128	133	137	140	140	141	142	155	189	200	
Recoleta	72	68	65	69	73	75	77	80	81	86	91	91	
La Paloma	453	430	414	423	437	449	456	480	506	559	583	574	
Cogotí	60	56	53	54	58	61	63	73	80	100	104	98	
Culimo	1.96	0.6	0.0	0.0	0.0	0.0	1.3	3.1	3.7	2.9	2.4	1.9	
Corrales	40	33	31	31	32	32	37	42	43	44	46	49	
Peñuelas	31	29	27	28	29	30	35	35	34	32	29	27	
El Yeso	228	231	218	215	221	215	203	192	179	181	206	233	
Rungue	0.4	0.2	0.1	0.1	0.6	1.2	2.0	2.1	2.0	1.9	2.2	1.0	
Rapel	579	505	442	537	432	514	645	597	615	616	629	634	
Colbún	1195	942	565	714	1253	1488	1506	1480	1425	1542	1544	1519	
Lag. Maule	849	802	743	723	761	786	829	843	863	914	1001	1088	
Bullileo	16	1.3	0	19	44	60	60	60	60	60	60	49	
Digua	28	6.5	4.0	28	105	160	219	220	220	199	220	93	
Tutuvén	4	2.1	0	3	15	13	15	13	12	12	15	6.1	
Coihueco	13	6	1.4	1.6	13.4	24	28.3	29	29	29	28	22	
Lago Laja (&)	2108	1923	1748	1716	1943	2110	2365	2480	2690	2970	3119	3104	

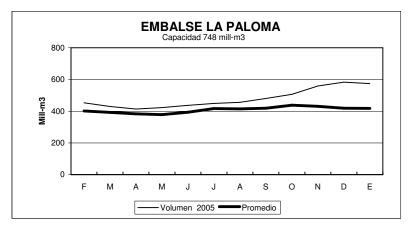
( & ): Volumen sobre cota 1300 msnm

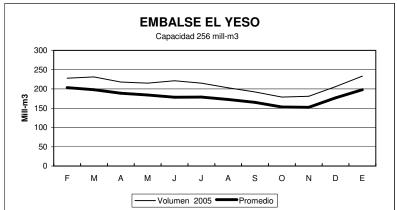
#### ESTADO DE EMBALSES

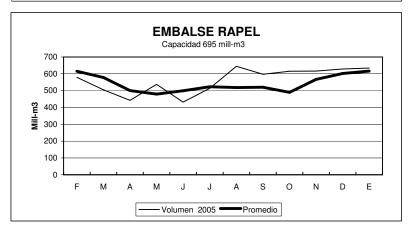


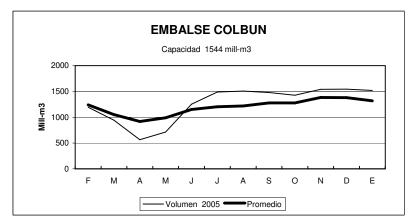


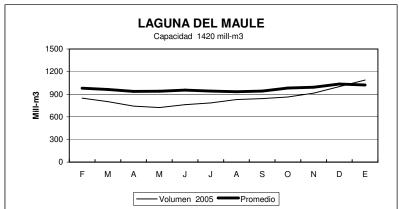


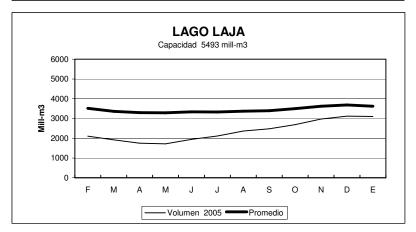








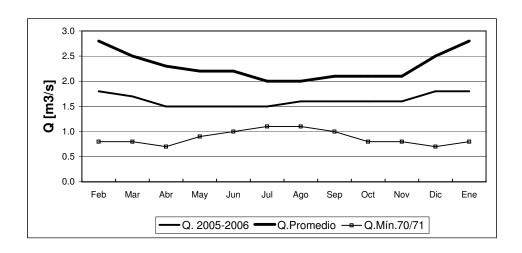




## INFORME FLUVIOMETRICO

Caudales medios mensuales en m3/seg

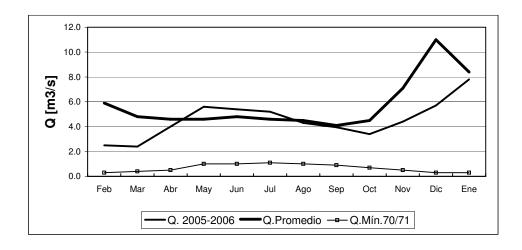
#### RIO COPIAPO EN LA PUERTA



Q. 2005-2006 Q.Promedio Q.Mín.70/71

Feb	Mar	Abr	мау	Jun	Jul	Ago	Sep	Oct	Nov	Dic	⊨ne
1.8	1.7	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.8	1.8
2.8	2.5	2.3	2.2	2.2	2.0	2.0	2.1	2.1	2.1	2.5	2.8
8.0	8.0	0.7	0.9	1.0	1.1	1.1	1.0	8.0	8.0	0.7	0.8

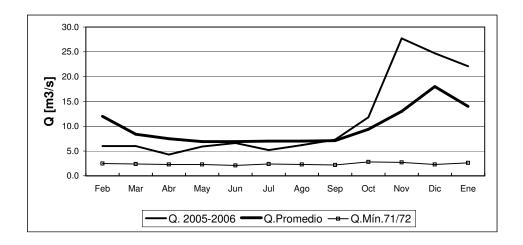
## RIO HUASCO EN ALGODONES



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2005-2006	2.5	2.4	4.0	5.6	5.4	5.2	4.3	4.0	3.4	4.4	5.7	7.8
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

Ene-06

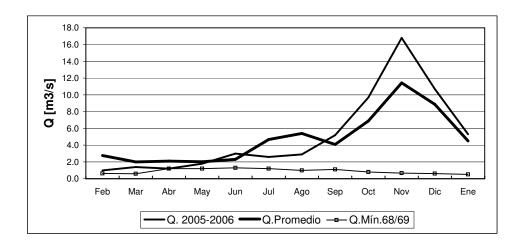
#### RIO ELQUI EN ALGARROBAL



Q. 2005-2006 Q.Promedio Q.Mín.71/72

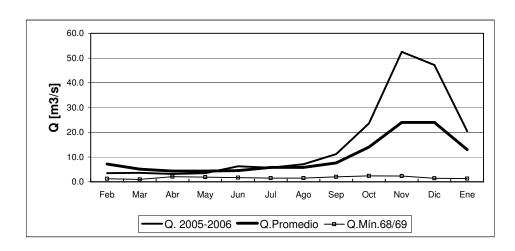
Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
6.0	6.0	4.3	5.9	6.6	5.2	6.2	7.3	11.8	27.7	24.7	22.1
12.0	8.4	7.5	6.9	6.9	7.0	7.0	7.1	9.4	13.0	18.0	14.0
2.5	2.4	2.3	2.3	2.1	2.4	2.3	2.2	2.8	2.7	2.3	2.6

#### RIO GRANDE EN LAS RAMADAS



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2005-2006	1.0	1.4	1.2	1.8	3.0	2.6	2.9	5.2	9.7	16.8	10.7	5.3
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	8.0	0.7	0.6	0.5

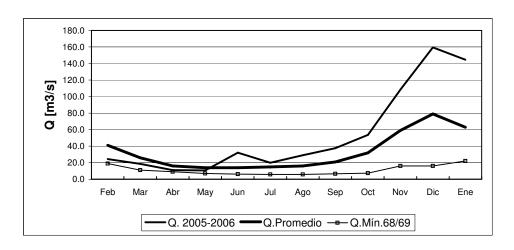
#### RIO CHOAPA EN CUNCUMEN



Q. 2005-2006 Q.Promedio Q.Mín.68/69

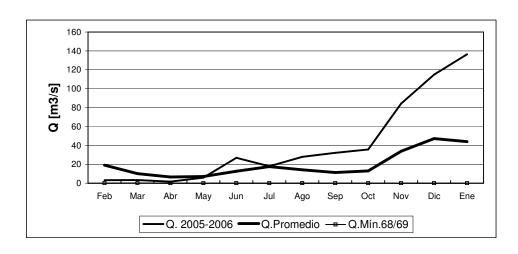
Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
3.5	3.6	3.2	3.5	6.3	5.7	7.1	11.2	23.6	52.5	47.2	20.4
7.2	5.1	4.3	4.3	4.5	5.8	5.8	7.6	14.0	24.0	24.0	13.0
1.2	1.0	2.1	1.9	1.7	1.5	1.5	2.0	2.4	2.3	1.4	1.3

### RIO ACONCAGUA EN CHACABUQUITO



Feb Mar Abr May Jun Jul Ago Sep Oct Nov Dic Ene Q. 2005-2006 24.4 10.6 37.5 53.7 108.4 144.6 18.5 11.1 32.2 20.0 29.1 159.5 32.0 63.0 Q.Promedio 41.0 26.0 16.0 14.0 14.0 15.0 16.0 21.0 59.0 79.0 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

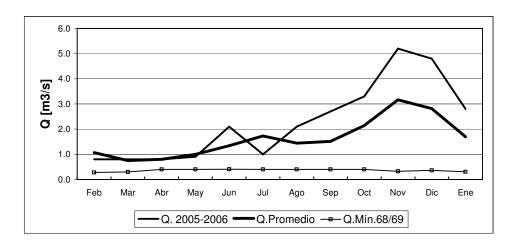
#### RIO ACONCAGUA EN SAN FELIPE



Q. 2005-2006 Q.Promedio Q.Mín.68/69

Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
3.3	3.4	1.7	6.0	26.9	18.0	28	32.2	35.8	84.4	115.0	136.5
19.1	10.2	6.7	7.1	12.7	17.6	14.2	11.3	13.0	33.8	47.3	44.1
0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

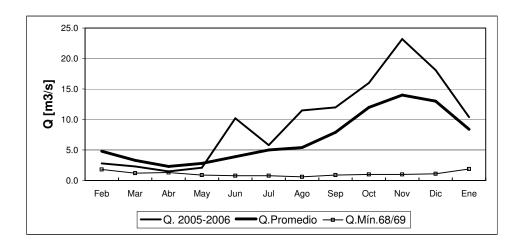
### ESTERO ARRAYAN EN LA MONTOSA



Feb Mar Abr May Jun Jul Ago Sep Oct Nov Dic Ene Q. 2005-2006 8.0 8.0 0.8 0.9 2.1 2.7 3.3 5.2 4.8 2.8 1.0 2.1 Q.Promedio 1.7 1.1 8.0 8.0 1.0 1.3 1.7 1.5 2.1 3.2 2.8 1.4 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

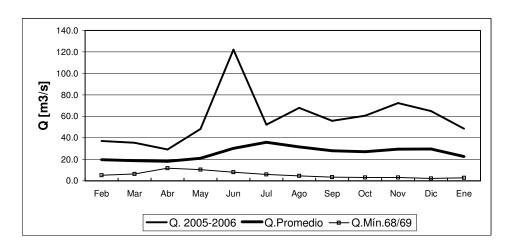
10.4 8.4 1.9

## RIO MAPOCHO EN LOS ALMENDROS



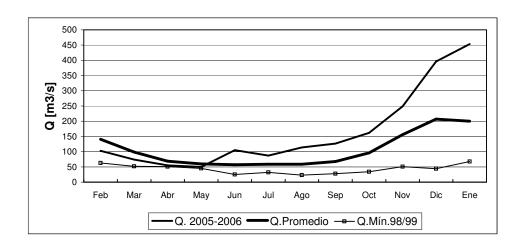
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
Q. 2005-2006	2.8	2.3	1.5	2.1	10.2	5.8	11.5	12.0	16.0	23.2	18.1
Q.Promedio	4.8	3.3	2.3	2.8	3.9	5.0	5.4	7.9	12.0	14.0	13.0
Q.Mín.68/69	1.8	1.2	1.3	0.9	8.0	0.8	0.6	0.9	1.0	1.0	1.1

### RIO MAPOCHO EN RINCONADA DE MAIPU



	reb	iviar	ADI	iviay	Jun	Jui	Ago	Sep	OCI	NOV	DIC	⊏ne
Q. 2005-2006	37.1	35.5	29.2	48.2	122.1	52.3	67.9	55.9	60.6	72.4	64.9	48.6
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

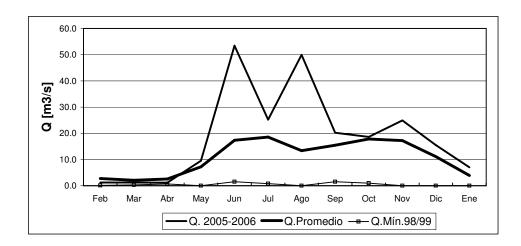
#### RIO MAIPO EN EL MANZANO



Q. 2005-2006 Q.Promedio Q.Mín.98/99

Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
103	74	55	50	105	87	114	126	162	249	396	453
141	99	69	60	57	59	59	68	96	156	207	200
63	52	51	45	25	32	23	28	34	51	44	68

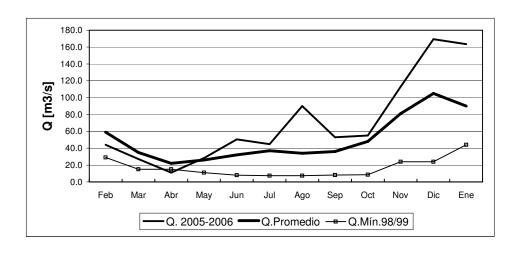
## **RIO CLARO EN EL VALLE 2**



Q. 2005-2006
Q.Promedio
Q.Mín.98/99

Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
1.2	1.2	1.1	9.5	53.4	25.2	49.9	20.2	18.6	24.9	15.5	7.0
2.7	2.1	2.6	7.2	17.3	18.6	13.4	15.5	17.9	17.2	11.1	3.9
0.1	0.3	0.7	0.0	1.5	8.0	0.0	1.5	1.0	0.0	0.0	0.0

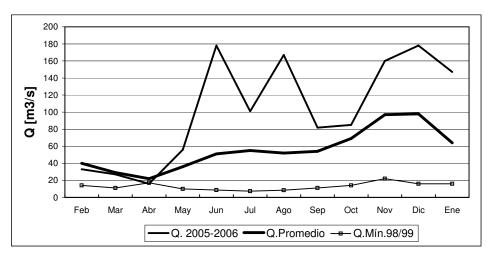
#### RIO TINGUIRIRICA BAJO BRIONES



Q. 2005-2006 Q.Promedio Q.Mín.98/99

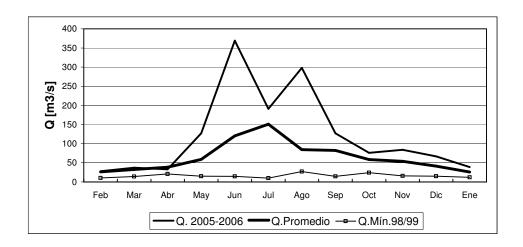
Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
44.0	27.1	11.0	28.2	50.5	44.9	90.0	53.0	55.0	113.0	169.4	163.5
59.0	35.0	22.0	26.0	32.0	37.0	34.0	36.0	48.0	81.0	105.0	90.0
29.0	15.0	15.0	11.0	8.0	7.4	7.4	8.2	8.5	24.0	24.0	44.0

### RIO TENO DESPUES DE JUNTA



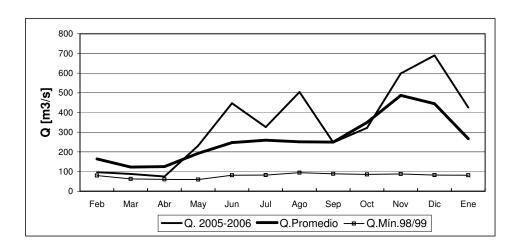
	reb	war	ADr	iviay	Jun	Jui	Ago	Sep	OCI	NOV	DIC	⊏ne
Q. 2005-2006	33	27	16	56	178	101	167	82	85	160	178	147
Q.Promedio	40	29	22	36	51	55	52	54	69	97	98	64
Q.Mín.98/99	14	11	17	10	8.6	7.4	8.4	11	14	22	16	16

## RIO CLARO EN RAUQUEN



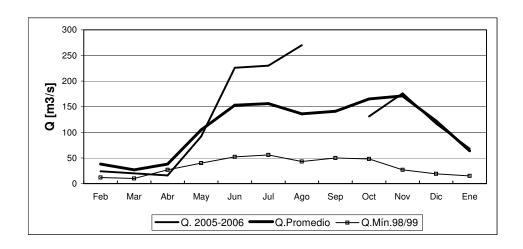
	reb	war	Abr	мау	Jun	Jui	Ago	Sep	Oct	NOV	DIC	⊨ne
Q. 2005-2006	28	37	33	127	369	191	298	127	76	84	67	39
Q.Promedio	26	33	39	59	121	151	84	82	58	54	41	26
Q.Mín.98/99	10	14	21	15	15	10	27	15	24	16	15	12

## **RIO MAULE EN ARMERILLO**



	Feb	Mar	Abr	мау	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2005-2006	97	88	75	232	447	326	504	248	322	598	690	425
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

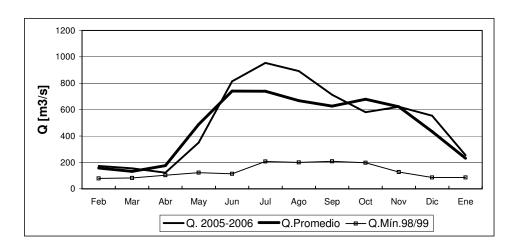
RIO ÑUBLE EN SAN FABIAN



Q. 2005-2006 Q.Promedio Q.Mín.98/99

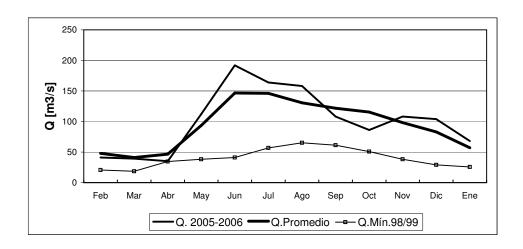
Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
24	20	16	92	226	230	270		131	176	117	68
38	27	38	105	153	156	136	141	165	171	122	64
12	10	27	40	52	56	43	50	48	27	19	15

## RIO BIO-BIO EN RUCALHUE



	reb	war	Abr	way	Jun	Jui	Ago	Sep	Oct	NOV	DIC	⊨ne
Q. 2005-2006	173	155	123	350	815	954	892	713	581	622	554	255
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

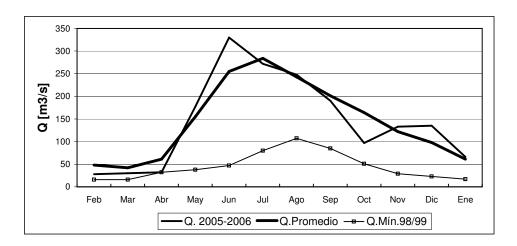
## RIO CAUTIN EN RARI-RUCA



Q. 2005-2006 Q.Promedio Q.Mín.98/99

Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
41	39	35	112	192	164	158	108	86	108	104	68
48	41	47	93	147	146	131	122	116	98	83	57
21	19	35	38	41	57	65	61	51	38	29	26

## **RIO CAUTIN EN CAJON**

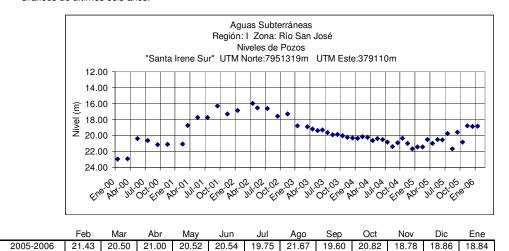


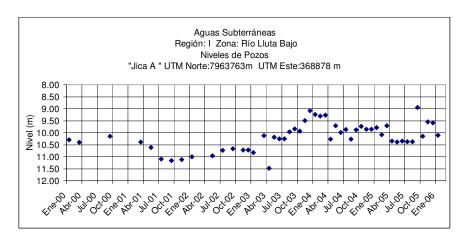
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Q. 2005-2006	28	30	32	177	330	272	248	190	97	133	135	66
Q.Promedio	48	42	61	155	255	284	243	201	164	122	98	61
Q.Mín.98/99	16	16	32	38	47	80	107	85	51	29	23	17

#### Informe de Aguas Subterráneas

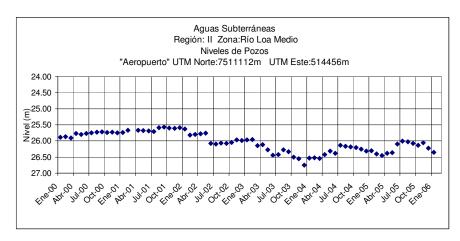
Niveles de Pozos en metros

\*Gráficos de últimos seis años.

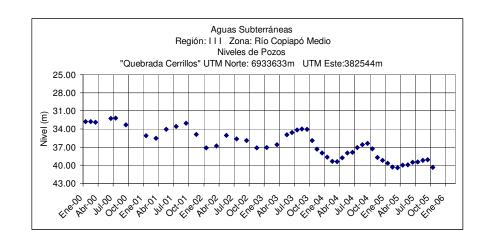




Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2005-2006 10.08	9.71	10.34	10.39	10.35	10.37	10.37	8.95	10.15	9.55	9.58	10.11



		Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
Г	2005-2006	26.40	26.45	26.38	26.36	26.10	26.01	26.03	26.08	26.14	26.06	26.23	26.35



Mar

40.31 40.42 39.98

2005-2006

Abr

May

39.92

Jun

Jul

Ago

39.51 39.46 39.19 39.06 40.36

Sep

Oct

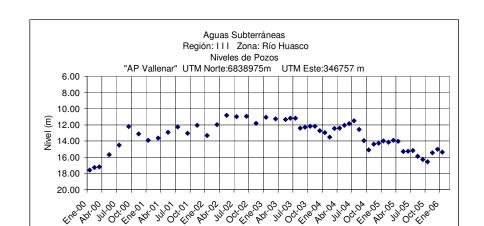
Nov

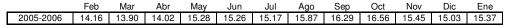
Seco

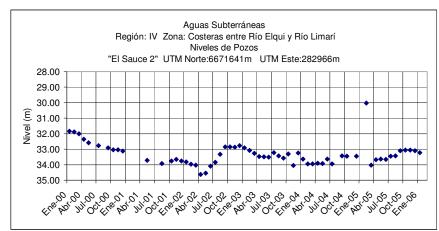
Dic

Ene

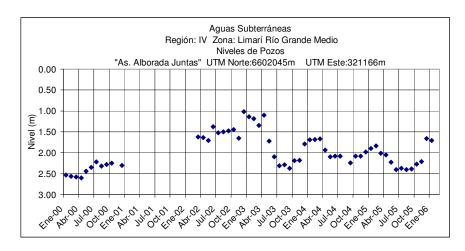
Seco Seco







	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2005-2006	30.03	34.03	32.56	33.64	33.66	33.46	33.43	33.10	33.06	33.05	33.10	33.23



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2005-2006	1 84	2 01	2 05	2 23	2 40	2.37	2 40	2 39	2 27	2 21	1 66	1 71

Abr

Мау

2005-2006 | 12.62 | 12.60 | 12.96 | 13.08 | 13.27 | 13.55 | 13.78 | 13.16 | 12.49 |

Jun

Jul

Ago

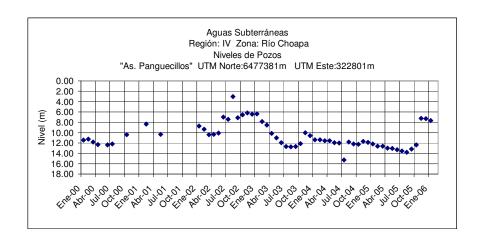
Sep

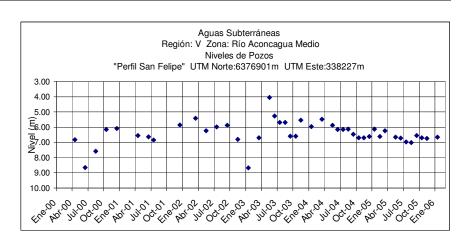
Oct

Nov

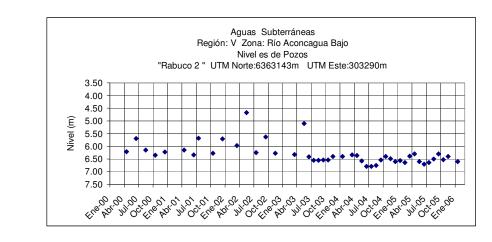
7.68

7.31

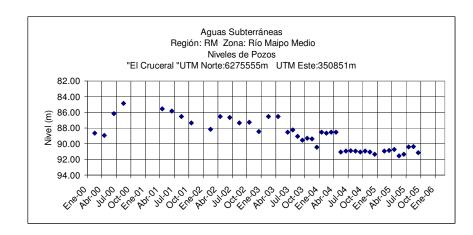




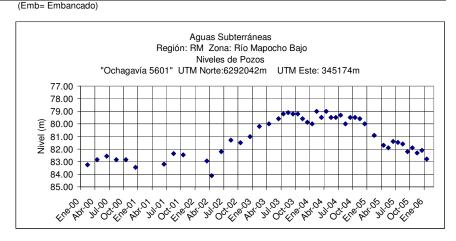
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2005-2006	6.62	6.24		6.65	6.72	6.97	7.02	6.55	6.70	6.75		6.65



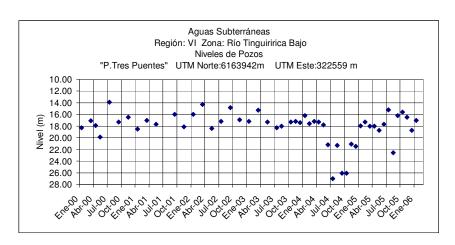
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	
2005-2006	6.64	6.39	6.30	6.61	6.70	6.64	6.50	6.30	6.53	6.40		6.61	l



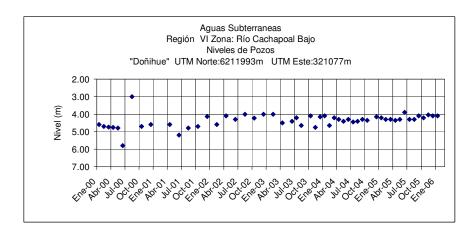
	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2005-2006	90.95	90.85	90.75	91.55	91.35	90.40	90.35	91.15	Emb	Emb	Emb	Emb
	/E - E		1 \									



		Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
I	2005-2006	80.90	,	81.70	81.90	81.40	81.47	81.60	82.20	81.90	82.30	82.10	82.80



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2005-2006	17.30	18.00	18.00	18.75	17.70	15.20	22.55	16.20	15.60	16.50	18.75	17.00



	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene
2005-2006	4.30	4.30	4.35	4.30	3.90	4.30	4.30	4.10	4.20	4.05	4.10	4.20