**MINISTERIO DE OBRAS PUBLICAS**
**DIRECCION GENERAL DE AGUAS**

**Boletín Nº : 359**
**Mes : Marzo**
**Año : 2008**

**DE : JAVIER NARBONA NARANJO**
**ING. JEFE DEPARTAMENTO DE HIDROLOGIA**

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

**Contenido :**



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

**NOTA: Datos provisorios sujetos a modificaciones posteriores**

DIRECCION GENERAL DE AGUAS

SANTIAGO, 01 DE ABRIL 2008.-

# INFORME PLUVIOMETRICO NACIONAL Nº03

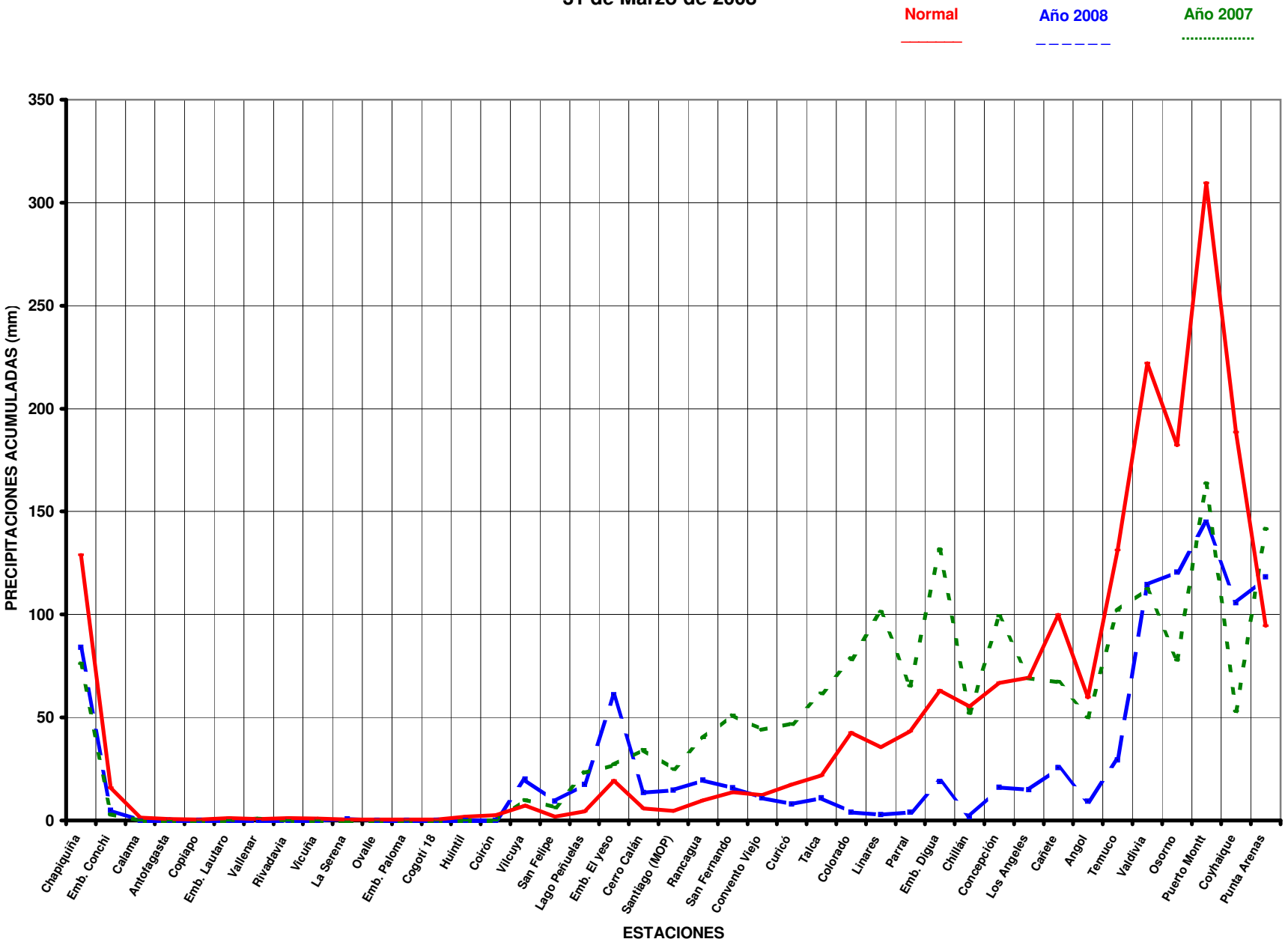
| ESTACIONES | MARZO | TOTALES AL 31 DE MARZO 2008 (mm) | 2007 (mm) | PROMEDIO (mm) | EXCESO O DÉFICIT (%) |
|---|---|---|---|---|---|
| CENTRAL CHAPIQUIÑA | 6.5 | 84.0 | 76.1 | 129.0* | - 35 |
| EMBALSE CONCHI | 0.0 | 5.0 | 3.0 | 15.7* | - 68 |
| CALAMA | 0.0 | 0.0 | 0.0 | 1.5 | -100 |
| ANTOFAGASTA | 0.0 | 0.0 | 0.0 | 0.6 | -100 |
| COPIAPÓ | 0.0 | 0.0 | 0.0 | 0.5 | -100 |
| EMBALSE LAUTARO | 0.0 | 0.0 | 0.0 | 1.1 | -100 |
| VALLENAR | 0.0 | 0.0 | 0.0 | 0.7 | -100 |
| RIVADAVIA | 0.0 | 0.0 | 0.0 | 1.1 | -100 |
| VICUÑA | 0.0 | 0.0 | 0.0 | 0.9 | -100 |
| LA SERENA | 0.0 | 0.6 | 0.0 | 0.4 | 57 |
| OVALLE | 0.0 | 0.0 | 0.0 | 0.4 | -100 |
| EMBALSE PALOMA | 0.0 | 0.0 | 0.0 | 0.4 | -100 |
| COGOTÍ 18 | 0.0 | 0.0 | 0.0 | 0.5 | -100 |
| HUINTIL | 0.0 | 0.0 | 0.0 | 1.8 | -100 |
| COIRÓN | 0.0 | 0.0 | 0.0 | 2.6 | -100 |
| VILCUYA | 20.0 | 20.0 | 10.0 | 7.3 | 176 |
| SAN FELIPE | 9.4 | 9.4 | 6.4 | 1.8 | >200 |
| LAGO PEÑUELAS | 17.5 | 17.5 | 23.0 | 4.4 | >200 |
| EMBALSE EL YESO | 33.5 | 61.0 | 27.0 | 19.3 | >200 |
| CERRO CALÁN | 12.9 | 13.5 | 34.4 | 5.9 | 129 |
| SANTIAGO (MOP) | 14.6 | 14.6 | 25.2 | 4.7 | >200 |
| RANCAGUA | 19.5 | 19.5 | 40.1 | 9.7 | 101 |
| SAN FERNANDO | 15.8 | 15.8 | 51.1 | 13.7 | 15 |
| CONVENTO VIEJO | 11.0 | 11.0 | 44.0 | 12.4 | - 11 |
| CURICO | 8.0 | 8.0 | 46.9 | 17.4 | - 54 |
| TALCA | 10.6 | 10.9 | 62.0 | 22.0 | - 50 |
| COLORADO | 4.0 | 4.0 | 78.5 | 42.7 | - 91 |
| LINARES | 0.4 | 2.9 | 101.3 | 35.6 | - 92 |
| PARRAL | 3.0 | 4.0 | 65.5 | 43.4 | - 91 |
| EMBALSE DIGUA | 5.5 | 18.9 | 131.4 | 63.0 | - 70 |
| CHILLÁN | 1.5 | 1.8 | 52.1 | 55.3 | - 97 |
| CONCEPCIÓN | 10.5 | 16.0 | 99.2 | 66.9 | - 76 |
| LOS ÁNGELES | 11.9 | 14.9 | 69.0 | 69.4 | - 79 |
| CAÑETE | 17.1 | 25.6 | 67.1 | 99.8 | - 74 |
| ANGOL | 2.0 | 9.4 | 50.2 | 59.8 | - 84 |
| TEMUCO | 9.7 | 29.3 | 102.0 | 131.2 | - 78 |
| VALDIVIA | 41.3 | 114.4 | 112.4 | 222.0 | - 48 |
| OSORNO | 42.1 | 120.6 | 77.9 | 182.3 | - 34 |
| PUERTO MONTT | 61.4 | 144.8 | 163.7 | 309.5 | - 53 |
| COYHAIQUE | 29.8 | 105.7 | 53.0 | 188.6 | - 44 |
| PUNTA ARENAS | 54.0 | 118.2 | 141.4 | 94.6 | 25 |

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 Marzo de 2008



MINISTERIO DE OBRAS PUBLICAS
DIRECCION GENERAL DE AGUAS

## ESTADO DE EMBALSES

Ultimo día del mes
(Volúmenes en mill-m$^3$)

| EMBALSE | REGION | CUENCA | CAPACIDAD | PROMEDIO HISTORICO MENSUAL | Marzo 2008 | Marzo 2007 | Uso Principal |
|---|---|---|---|---|---|---|---|
| Conchi | II | Loa | 22 | 15 | 16 | 14 | Riego |
| Lautaro | III | Copiapó | 35 | 12 | 8.0 | 0.5 | Riego |
| Santa Juana | III | Huasco | 166 | 119 | 160 | 120 | Riego |
| La Laguna | IV | Elqui | 40 | 24 | 25 | 28 | Riego |
| Puclaro | IV | Elqui | 200 | 117 | 200 | 191 | Riego |
| Recoleta | IV | Limarí | 100 | 58 | 65 | 68 | Riego |
| La Paloma | IV | Limarí | 748 | 395 | 343 | 465 | Riego |
| Cogotí | IV | Limarí | 150 | 75 | 16 | 47 | Riego |
| Culimo | IV | Quilimarí | 10 | 2.8 | 0.0 | 0.3 | Riego |
| Corrales | IV | Illapel | 50 | 39 | 34 | 43 | Riego |
| Peñuelas | V | Peñuelas | 95 | 22 | 5 | 20 | Agua Potable |
| El Yeso | RM | Maipo | 256 | 200 | 176 | 212 | Agua Potable |
| Rungue | RM | Maipo | 2.2 | 0.3 | 0.0 | 0.4 | Riego |
| Rapel | VI | Rapel | 695 | 579 | 468 | 500 | Generación |
| Colbún | VII | Maule | 1544 | 1057 | 904 | 945 | Generación y Riego |
| Lag. Maule | VII | Maule | 1420 | 968 | 801 | 1376 | Generación y Riego |
| Bullileo | VII | Maule | 60 | 3 | 0 | 6.5 | Riego |
| Digua | VII | Maule | 220 | 28 | 5 | 4 | Riego |
| Tutuvén | VII | Maule | 15 | 2 | 1 | 2 | Riego |
| Coihueco | VIII | Itata | 29 | 7 | 3 | 5.9 | Riego |
| Lago Laja (&) | VIII | Bio-Bio | 5582 | 3479 | 1842 | 3024 | Generación y Riego |
| Ralco | VIII | Bio-Bio | 1174 | | 405 | 422 | Generación |
| Pangue | VIII | Bio-Bio | 83 | | 44 | 72 | Generación |

## RESUMEN ANUAL

2007 - 2008

| EMBALSE | A | M | J | J | A | S | O | N | D | E | F | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conchi | 14 | 15 | 16 | 17 | 18 | 18 | 18 | 17 | 17 | 17 | 16 | 16 |
| Lautaro | 0.0 | 4.0 | 6.0 | 7.0 | 7 | 6.5 | 3.9 | 3.6 | 5.7 | 9.0 | 8.0 | 8.0 |
| Santa Juana | 118 | 121 | 124 | 129 | 131 | 130 | 129 | 136 | 147 | 157 | 159 | 160 |
| La Laguna | 30 | 32 | 32 | 32 | 33 | 32 | 28 | 26 | 26 | 26 | 26 | 25 |
| Puclaro | 188 | 187 | 191 | 192 | 195 | 198 | 200 | 200 | 200 | 200 | 200 | 200 |
| Recoleta | 67 | 68 | 72 | 75 | 78 | 78 | 77 | 75 | 75 | 71 | 68 | 65 |
| La Paloma | 452 | 447 | 456 | 463 | 467 | 464 | 462 | 453 | 429 | 397 | 369 | 343 |
| Cogotí | 43 | 41 | 40 | 41 | 40 | 41 | 39 | 35 | 30 | 25 | 21 | 16 |
| Culimo | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Corrales | 40 | 40 | 41 | 42 | 43 | 43 | 42 | 42 | 42 | 40 | 36 | 34 |
| Peñuelas | 18 | 16 | 16 | 16 | 15 | 13 | 11 | 10 | 9 | 7 | 6 | 5 |
| El Yeso | 206 | 195 | 182 | 170 | 157 | 144 | 126 | 138 | 169 | 184 | 185 | 176 |
| Rungue | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.4 | 0.3 | 0.2 | 0.0 | 0.0 |
| Rapel | 420 | 413 | 412 | 411 | 408 | 396 | 402 | 482 | 524 | 530 | 413 | 468 |
| Colbún | 584 | 389 | 388 | 489 | 652 | 899 | 1028 | 1081 | 970 | 955 | 939 | 904 |
| Lag. Maule | 1333 | 1285 | 1224 | 1189 | 1151 | 1118 | 1131 | 1169 | 1171 | 1049 | 891 | 801 |
| Bullileo | 0 | 2.12 | 6.1 | 32 | 48 | 60 | 60 | 60 | 53 | 32 | 7 | 0 |
| Digua | 3.2 | 6.0 | 38.1 | 105.0 | 170 | 220 | 220 | 198 | 134 | 59 | 16 | 5 |
| Tutuvén | 4.7 | 2.8 | 2.0 | 6.1 | 12 | 14 | 14 | 10 | 7 | 5 | 3 | 1 |
| Coihueco | 1.8 | 1.8 | 2.8 | 10 | 21 | 29 | 29 | 29 | 22 | 13 | 8 | 3 |
| Lago Laja (&) | 2775 | 2492 | 2299 | 2273 | 2190 | 2162 | 2286 | 2402 | 2368 | 2222 | 2040 | 1842 |
| Ralco | 416 | 416 | 413 | 418 | 413 | 434 | 626 | 759 | 623 | 501 | 403 | 405 |
| Pangue | 80 | 68 | 73 | 76 | 76 | 76 | 77 | 75 | 75 | 62 | 56 | 44 |

( & ) : Volumen sobre cota 1300 msnm

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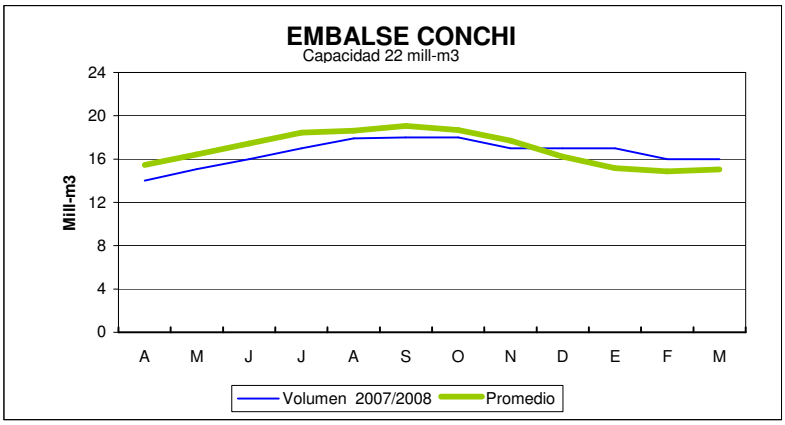
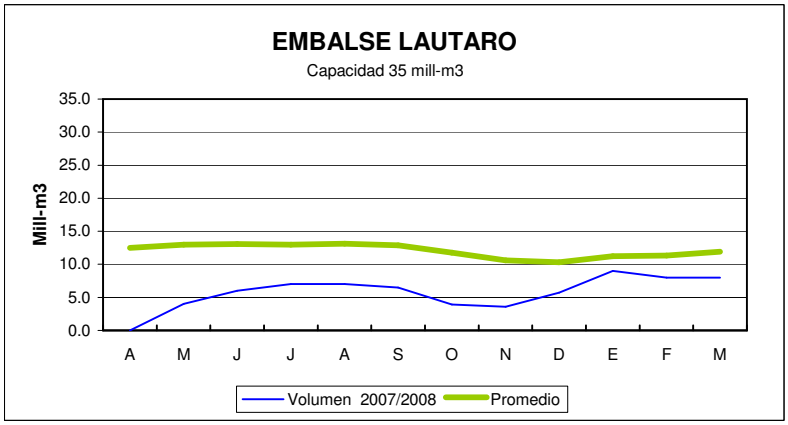
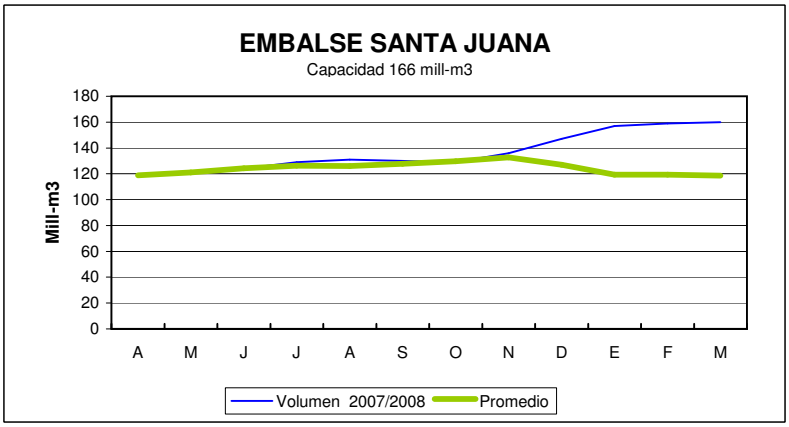
# ESTADO DE EMBALSES



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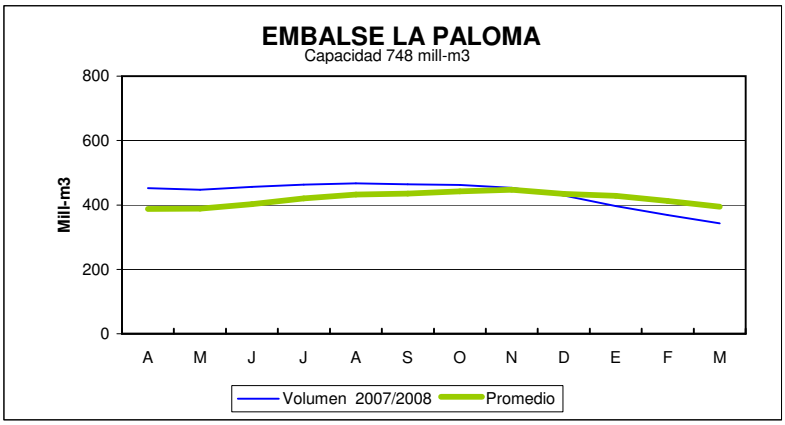


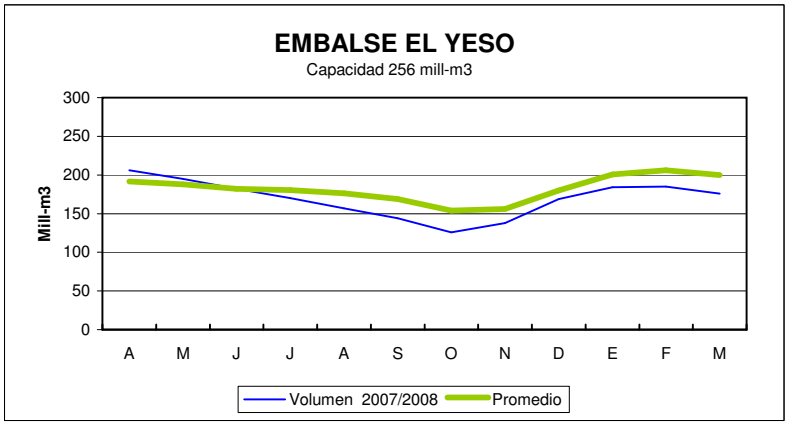


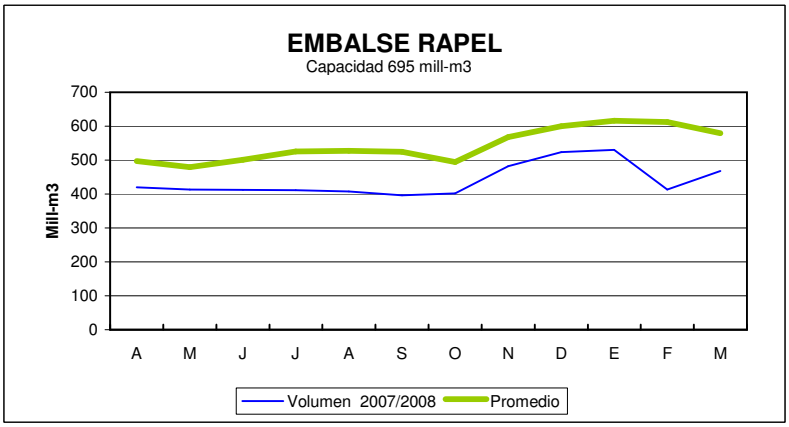

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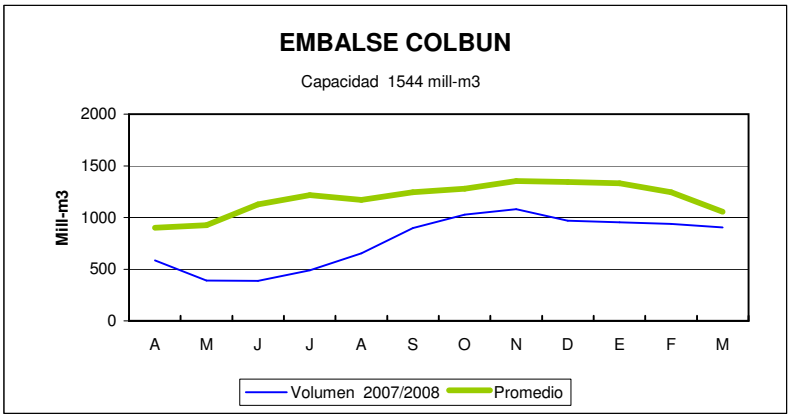


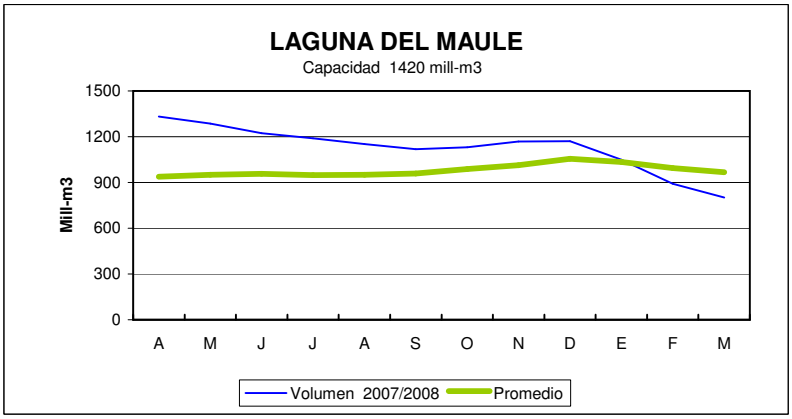


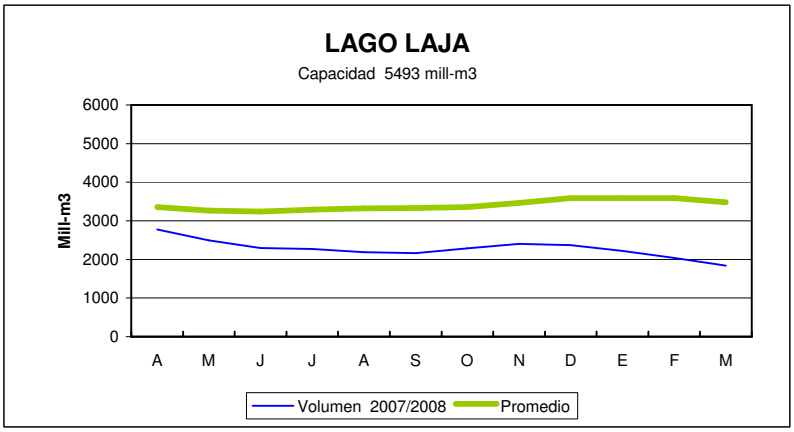

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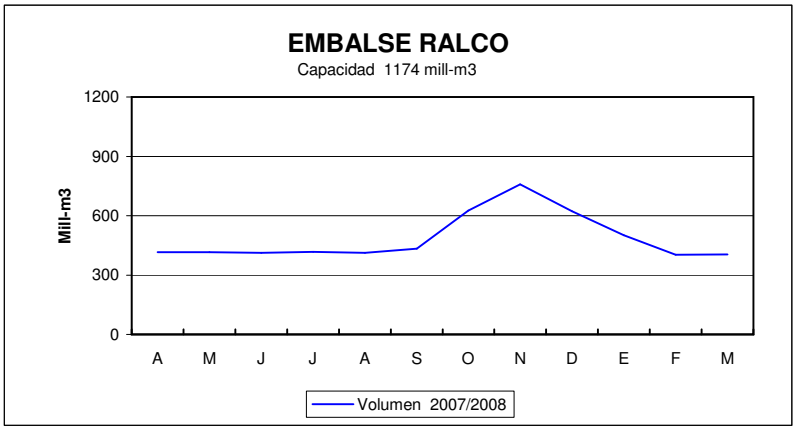


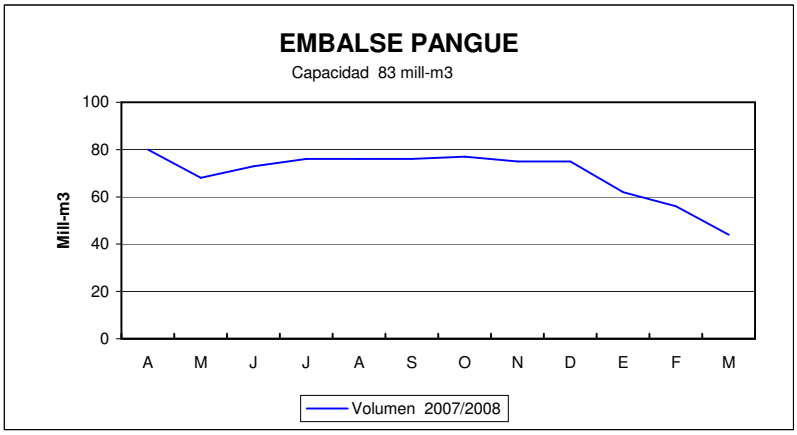

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# INFORME FLUVIOMETRICO

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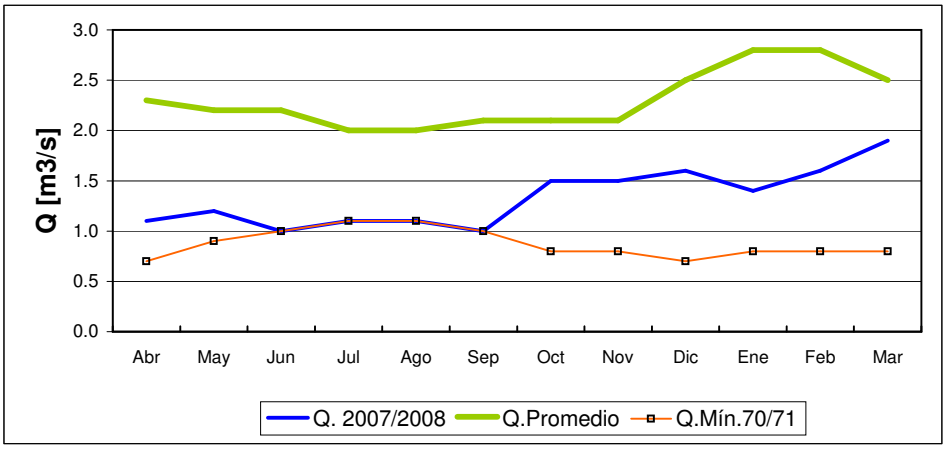
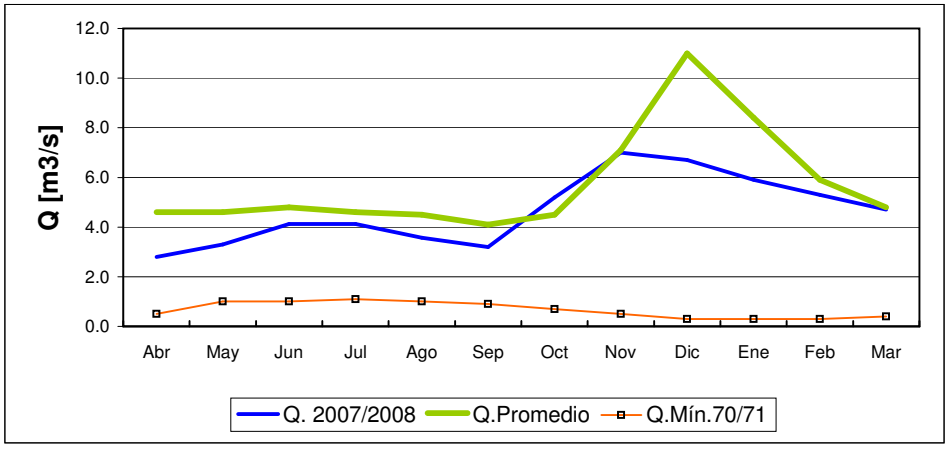
Caudales medios mensuales en m3/seg

## RIO COPIAPO EN LA PUERTA




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 1.1 | 1.2 | 1.0 | 1.1 | 1.1 | 1.0 | 1.5 | 1.5 | 1.6 | 1.4 | 1.6 | 1.9 |
| **Q.Promedio** | 2.3 | 2.2 | 2.2 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.5 | 2.8 | 2.8 | 2.5 |
| **Q.Mín.70/71** | 0.7 | 0.9 | 1.0 | 1.1 | 1.1 | 1.0 | 0.8 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 |

## RIO HUASCO EN ALGODONES




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 2.8 | 3.3 | 4.1 | 4.1 | 3.6 | 3.2 | 5.2 | 7.0 | 6.7 | 5.9 | 5.3 | 4.7 |
| **Q.Promedio** | 4.6 | 4.6 | 4.8 | 4.6 | 4.5 | 4.1 | 4.5 | 7.1 | 11.0 | 8.4 | 5.9 | 4.8 |
| **Q.Mín.70/71** | 0.5 | 1.0 | 1.0 | 1.1 | 1.0 | 0.9 | 0.7 | 0.5 | 0.3 | 0.3 | 0.3 | 0.4 |

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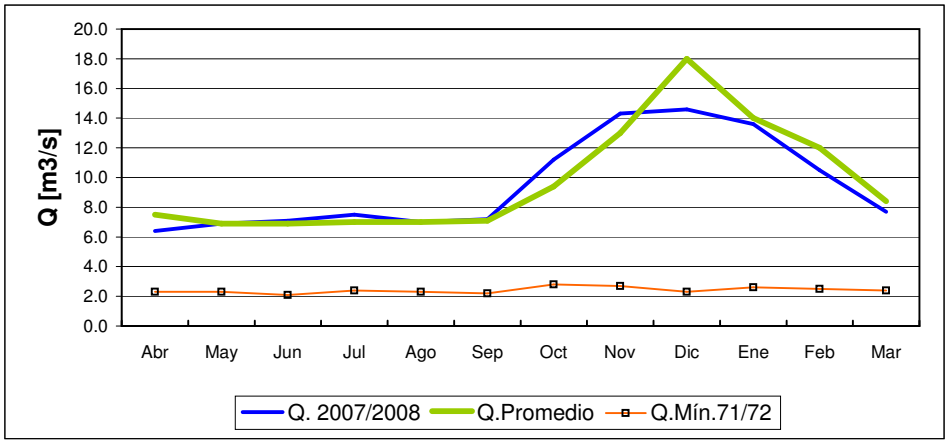
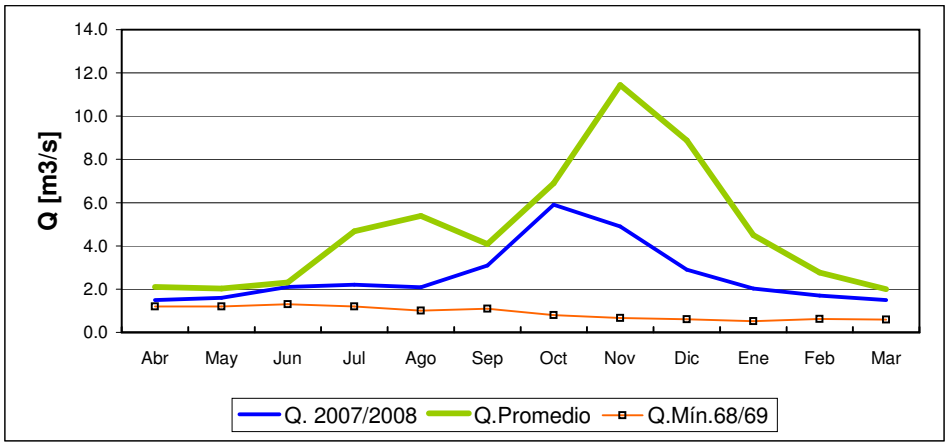
## RIO ELQUI EN ALGARROBAL




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 6.4 | 6.9 | 7.1 | 7.5 | 7.0 | 7.2 | 11.2 | 14.3 | 14.6 | 13.6 | 10.5 | 7.7 |
| **Q.Promedio** | 7.5 | 6.9 | 6.9 | 7.0 | 7.0 | 7.1 | 9.4 | 13.0 | 18.0 | 14.0 | 12.0 | 8.4 |
| **Q.Mín.71/72** | 2.3 | 2.3 | 2.1 | 2.4 | 2.3 | 2.2 | 2.8 | 2.7 | 2.3 | 2.6 | 2.5 | 2.4 |

## RIO GRANDE EN LAS RAMADAS




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 1.5 | 1.6 | 2.1 | 2.2 | 2.1 | 3.1 | 5.9 | 4.9 | 2.9 | 2.0 | 1.7 | 1.5 |
| **Q.Promedio** | 2.1 | 2.0 | 2.3 | 4.7 | 5.4 | 4.1 | 6.9 | 11.4 | 8.9 | 4.5 | 2.8 | 2.0 |
| **Q.Mín.68/69** | 1.2 | 1.2 | 1.3 | 1.2 | 1.0 | 1.1 | 0.8 | 0.7 | 0.6 | 0.5 | 0.6 | 0.6 |

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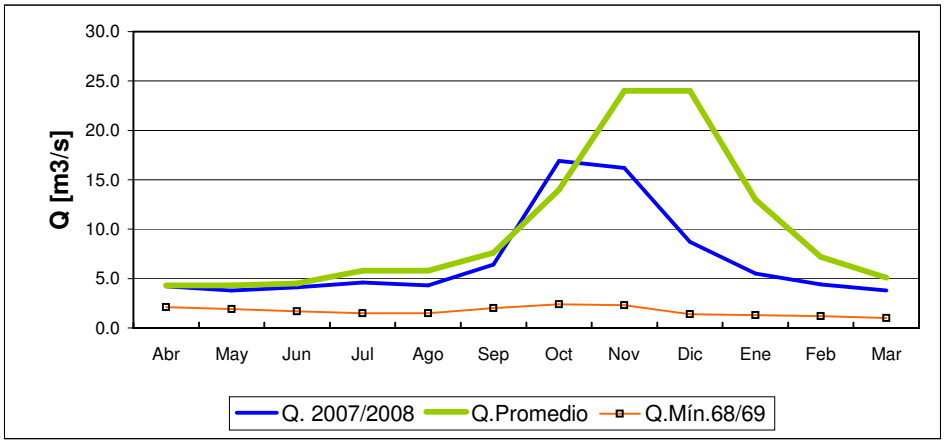
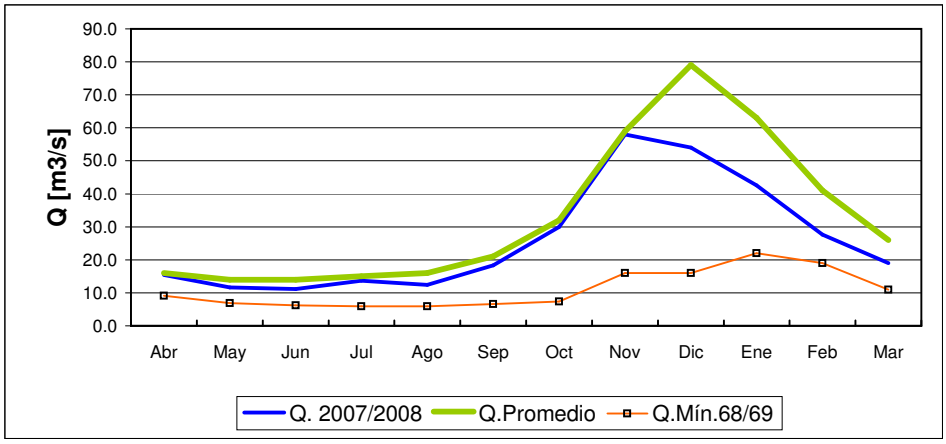
## RIO CHOAPA EN CUNCUMEN




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 4.2 | 3.8 | 4.1 | 4.6 | 4.3 | 6.4 | 16.9 | 16.2 | 8.7 | 5.5 | 4.4 | 3.8 |
| **Q.Promedio** | 4.3 | 4.3 | 4.5 | 5.8 | 5.8 | 7.6 | 14.0 | 24.0 | 24.0 | 13.0 | 7.2 | 5.1 |
| **Q.Mín.68/69** | 2.1 | 1.9 | 1.7 | 1.5 | 1.5 | 2.0 | 2.4 | 2.3 | 1.4 | 1.3 | 1.2 | 1.0 |

## RIO ACONCAGUA EN CHACABUQUITO




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 15.4 | 11.6 | 11.2 | 13.7 | 12.4 | 18.3 | 30.0 | 58.0 | 54.0 | 42.6 | 27.6 | 19.0 |
| **Q.Promedio** | 16.0 | 14.0 | 14.0 | 15.0 | 16.0 | 21.0 | 32.0 | 59.0 | 79.0 | 63.0 | 41.0 | 26.0 |
| **Q.Mín.68/69** | 9.1 | 6.9 | 6.2 | 5.9 | 5.9 | 6.6 | 7.4 | 16.0 | 16.0 | 22.0 | 19.0 | 11.0 |

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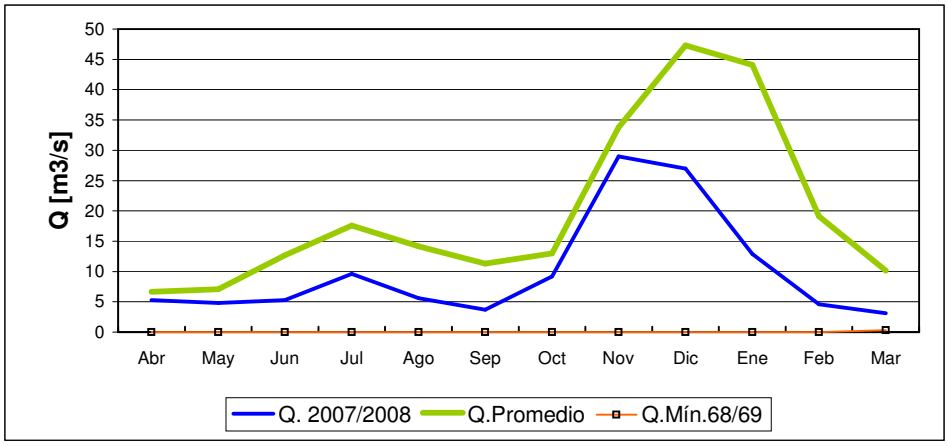
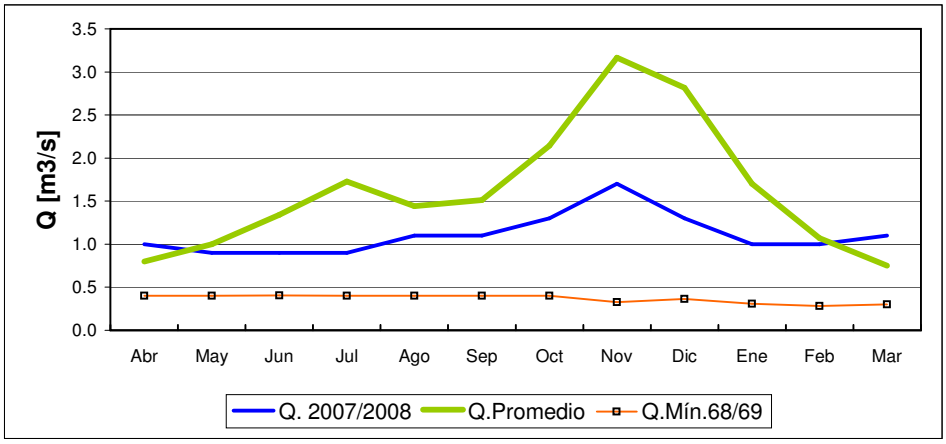
## RIO ACONCAGUA EN SAN FELIPE




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 5.3 | 4.8 | 5.3 | 9.6 | 5.6 | 3.7 | 9.2 | 29.0 | 27.0 | 12.9 | 4.6 | 3.1 |
| **Q.Promedio** | 6.7 | 7.1 | 12.7 | 17.6 | 14.2 | 11.3 | 13.0 | 33.8 | 47.3 | 44.1 | 19.1 | 10.2 |
| **Q.Mín.68/69** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |

## ESTERO ARRAYAN EN LA MONTOSA




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 1.0 | 0.9 | 0.9 | 0.9 | 1.1 | 1.1 | 1.3 | 1.7 | 1.3 | 1.0 | 1.0 | 1.1 |
| **Q.Promedio** | 0.8 | 1.0 | 1.3 | 1.7 | 1.4 | 1.5 | 2.1 | 3.2 | 2.8 | 1.7 | 1.1 | 0.8 |
| **Q.Mín.68/69** | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 |

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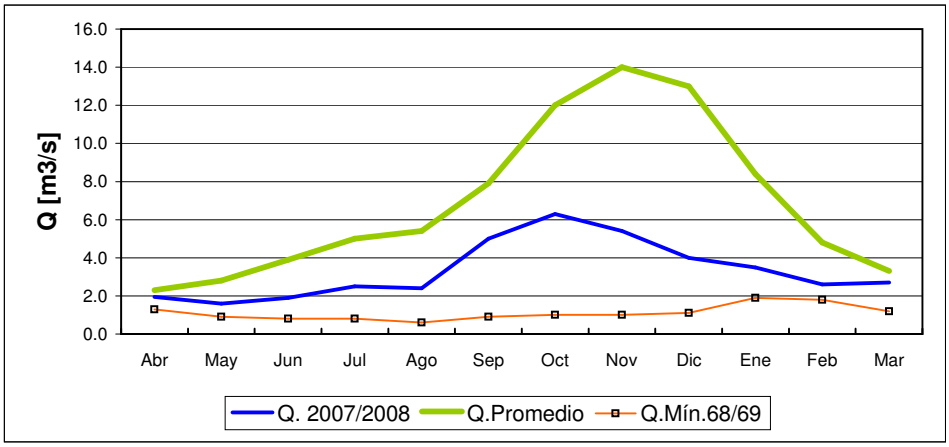
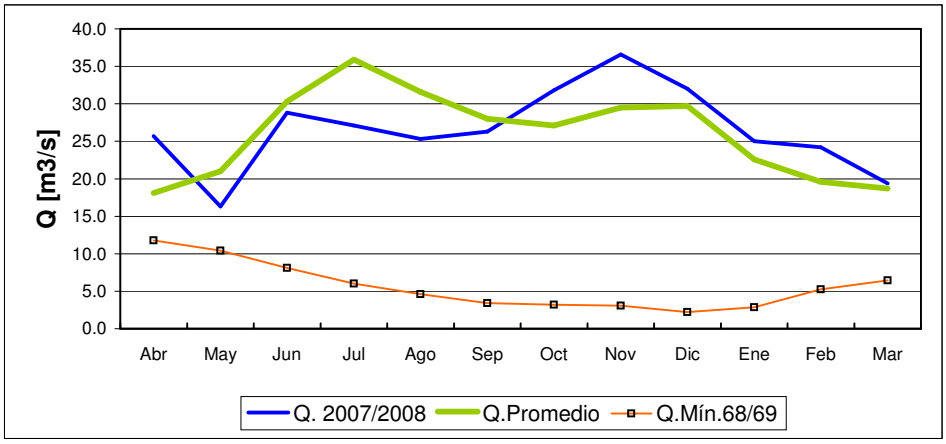
## RIO MAPOCHO EN LOS ALMENDROS




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 2.0 | 1.6 | 1.9 | 2.5 | 2.4 | 5.0 | 6.3 | 5.4 | 4.0 | 3.5 | 2.6 | 2.7 |
| **Q.Promedio** | 2.3 | 2.8 | 3.9 | 5.0 | 5.4 | 7.9 | 12.0 | 14.0 | 13.0 | 8.4 | 4.8 | 3.3 |
| **Q.Mín.68/69** | 1.3 | 0.9 | 0.8 | 0.8 | 0.6 | 0.9 | 1.0 | 1.0 | 1.1 | 1.9 | 1.8 | 1.2 |

## RIO MAPOCHO EN RINCONADA DE MAIPU




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 25.7 | 16.3 | 28.8 | 27.1 | 25.3 | 26.3 | 31.8 | 36.6 | 32.0 | 25.0 | 24.2 | 19.4 |
| **Q.Promedio** | 18.1 | 21.0 | 30.3 | 35.9 | 31.6 | 28.0 | 27.1 | 29.5 | 29.7 | 22.6 | 19.6 | 18.7 |
| **Q.Mín.68/69** | 11.8 | 10.4 | 8.1 | 6.0 | 4.6 | 3.4 | 3.2 | 3.1 | 2.2 | 2.9 | 5.3 | 6.5 |

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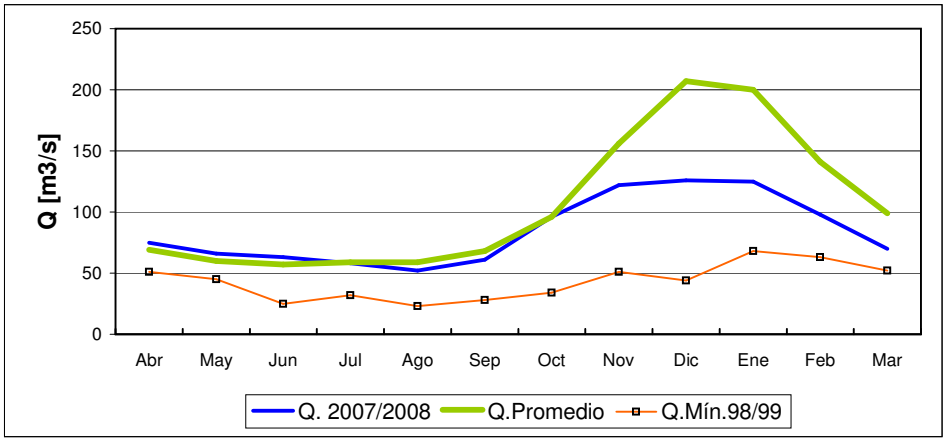
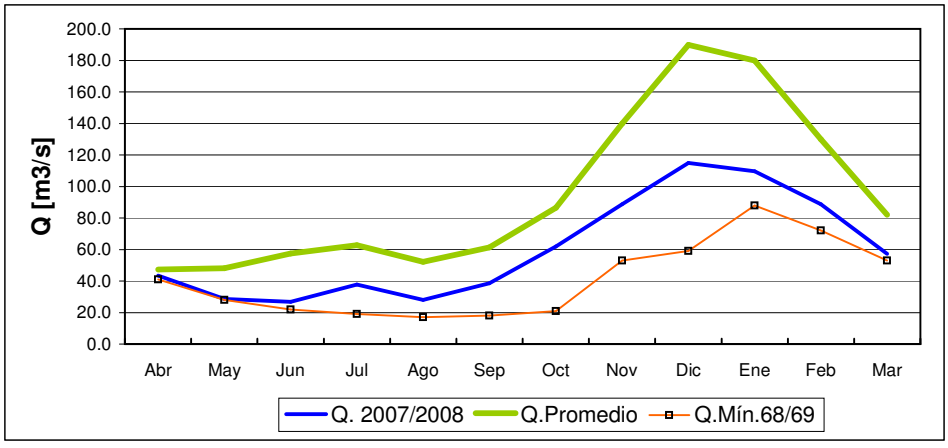
## RIO MAIPO EN EL MANZANO




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 75 | 66 | 63 | 58 | 52 | 61 | 96 | 122 | 126 | 125 | 98 | 70 |
| **Q.Promedio** | 69 | 60 | 57 | 59 | 59 | 68 | 96 | 156 | 207 | 200 | 141 | 99 |
| **Q.Mín.98/99** | 51 | 45 | 25 | 32 | 23 | 28 | 34 | 51 | 44 | 68 | 63 | 52 |

## RIO CACHAPOAL EN PUENTE TERMAS(R.N.)

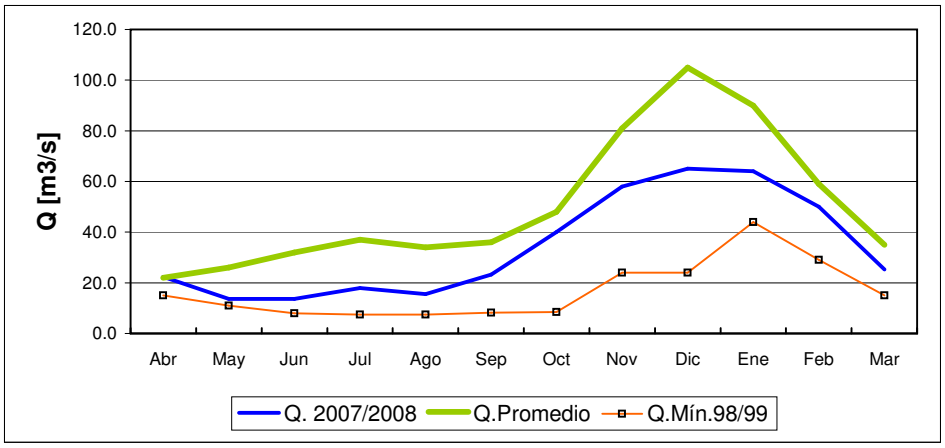



| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 43.4 | 28.6 | 26.9 | 37.7 | 28.1 | 38.6 | 62.0 | 88.8 | 115.0 | 109.6 | 88.8 | 57.2 |
| **Q.Promedio** | 47.4 | 48.2 | 57.5 | 62.8 | 52.2 | 61.4 | 86.4 | 139.8 | 189.9 | 179.9 | 130.0 | 82.0 |
| **Q.Mín.68/69** | 41.0 | 28.0 | 22.0 | 19.0 | 17.0 | 18.0 | 21.0 | 53.0 | 59.0 | 88.0 | 72.0 | 53.0 |

DIRECCION GENERAL DE AGUAS

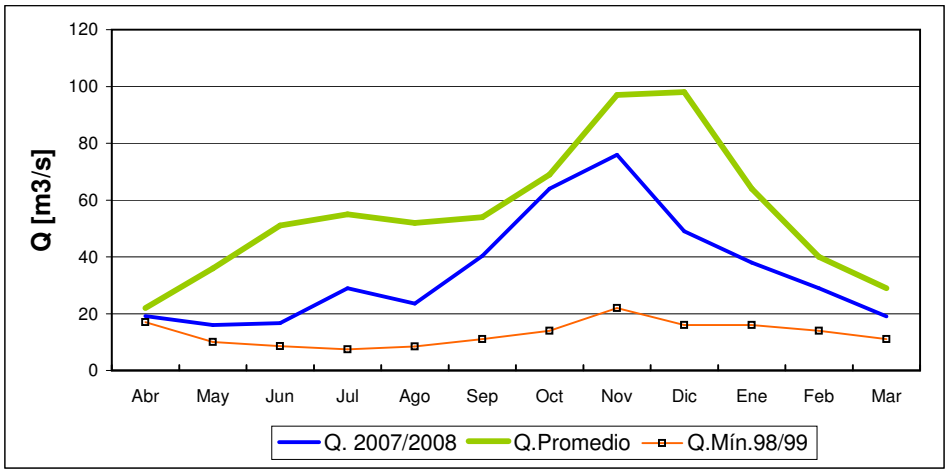
Mar-08

## RIO TINGUIRIRICA BAJO BRIONES




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 22.4 | 13.7 | 13.6 | 18.0 | 15.5 | 23.3 | 40.0 | 58.0 | 65.0 | 64.0 | 50.0 | 25.3 |
| **Q.Promedio** | 22.0 | 26.0 | 32.0 | 37.0 | 34.0 | 36.0 | 48.0 | 81.0 | 105.0 | 90.0 | 59.0 | 35.0 |
| **Q.Mín.98/99** | 15.0 | 11.0 | 8.0 | 7.4 | 7.4 | 8.2 | 8.5 | 24.0 | 24.0 | 44.0 | 29.0 | 15.0 |

## RIO TENO DESPUES DE JUNTA




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 19 | 16 | 16.7 | 29 | 24 | 40 | 64 | 76 | 49 | 38 | 29 | 19 |
| **Q.Promedio** | 22 | 36 | 51 | 55 | 52 | 54 | 69 | 97 | 98 | 64 | 40 | 29 |
| **Q.Mín.98/99** | 17 | 10 | 8.6 | 7.4 | 8.4 | 11 | 14 | 22 | 16 | 16 | 14 | 11 |

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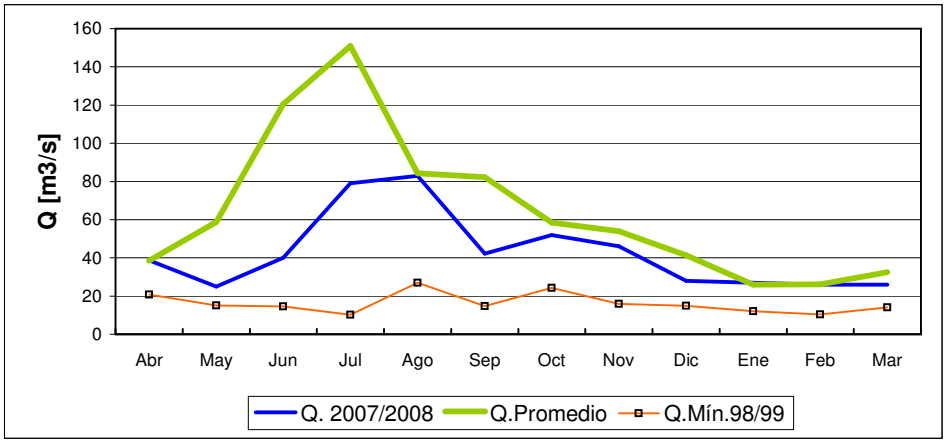
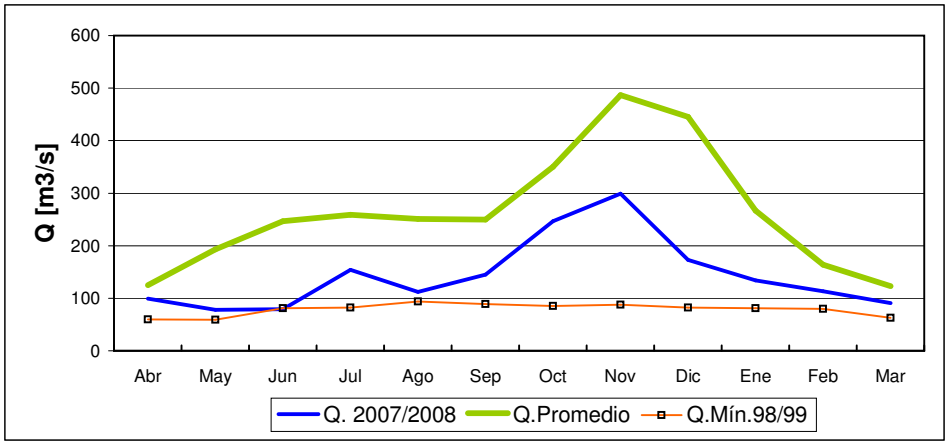
## RIO CLARO EN RAUQUEN




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 39 | 25 | 40 | 79 | 83 | 42 | 52 | 46 | 28 | 27 | 26 | 26 |
| **Q.Promedio** | 39 | 59 | 121 | 151 | 84 | 82 | 58 | 54 | 41 | 26 | 26 | 33 |
| **Q.Mín.98/99** | 21 | 15 | 15 | 10 | 27 | 15 | 24 | 16 | 15 | 12 | 10 | 14 |

## RIO MAULE EN ARMERILLO (R. N.)




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 99 | 78 | 79 | 154 | 112 | 145 | 247 | 299 | 173 | 134 | 113 | 91 |
| **Q.Promedio** | 125 | 193 | 247 | 259 | 251 | 250 | 350 | 487 | 445 | 267 | 164 | 123 |
| **Q.Mín.98/99** | 60 | 59 | 81 | 82 | 94 | 89 | 85 | 88 | 82 | 81 | 80 | 63 |

DIRECCION GENERAL DE AGUAS

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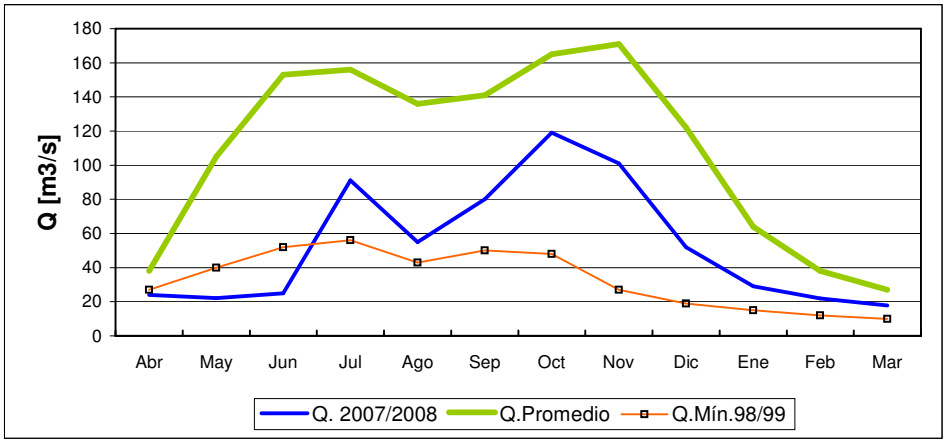
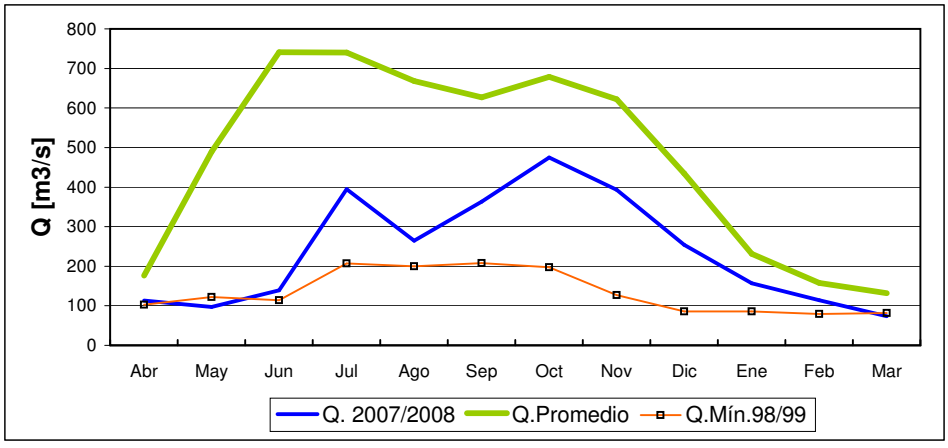
## RIO ÑUBLE EN SAN FABIAN




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 24 | 22 | 25 | 91.2 | 55 | 80 | 119 | 101 | 52 | 29 | 22 | 18 |
| **Q.Promedio** | 38 | 105 | 153 | 156 | 136 | 141 | 165 | 171 | 122 | 64 | 38 | 27 |
| **Q.Mín.98/99** | 27 | 40 | 52 | 56 | 43 | 50 | 48 | 27 | 19 | 15 | 12 | 10 |

## RIO BIO-BIO EN RUCALHUE




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 113 | 97 | 139 | 395 | 264 | 363 | 475 | 393 | 254 | 157 | 114 | 74 |
| **Q.Promedio** | 176 | 489 | 741 | 740 | 668 | 627 | 679 | 622 | 434 | 231 | 158 | 132 |
| **Q.Mín.98/99** | 103 | 122 | 114 | 207 | 200 | 208 | 197 | 127 | 86 | 86 | 79 | 82 |

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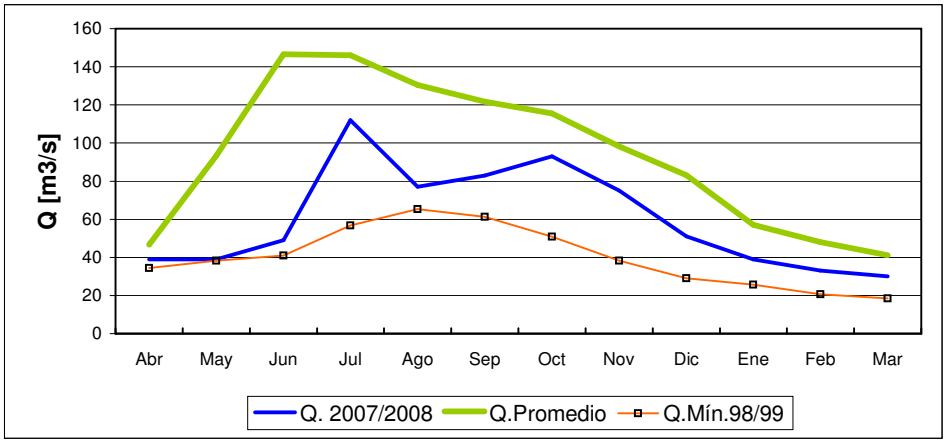
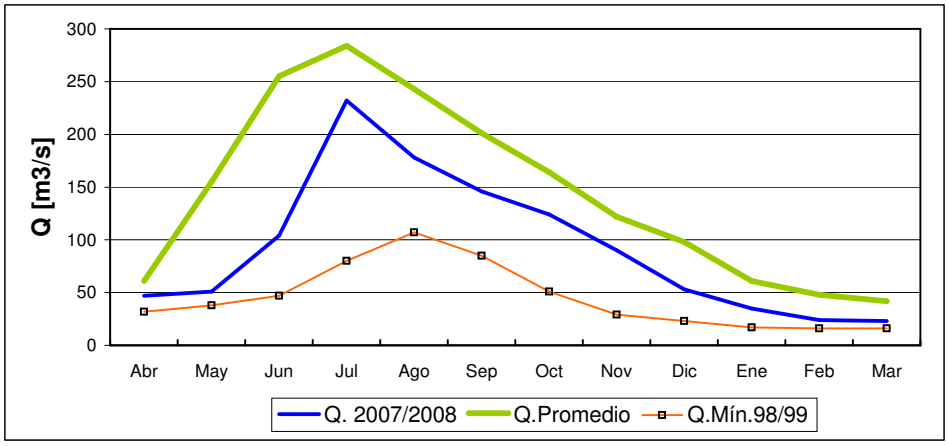
## RIO CAUTIN EN RARI-RUCA




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 39 | 39 | 49 | 112 | 77 | 83 | 93 | 75 | 51 | 39 | 33 | 30 |
| **Q.Promedio** | 47 | 93 | 147 | 146 | 131 | 122 | 116 | 98 | 83 | 57 | 48 | 41 |
| **Q.Mín.98/99** | 35 | 38 | 41 | 57 | 65 | 61 | 51 | 38 | 29 | 26 | 21 | 19 |

## RIO CAUTIN EN CAJON

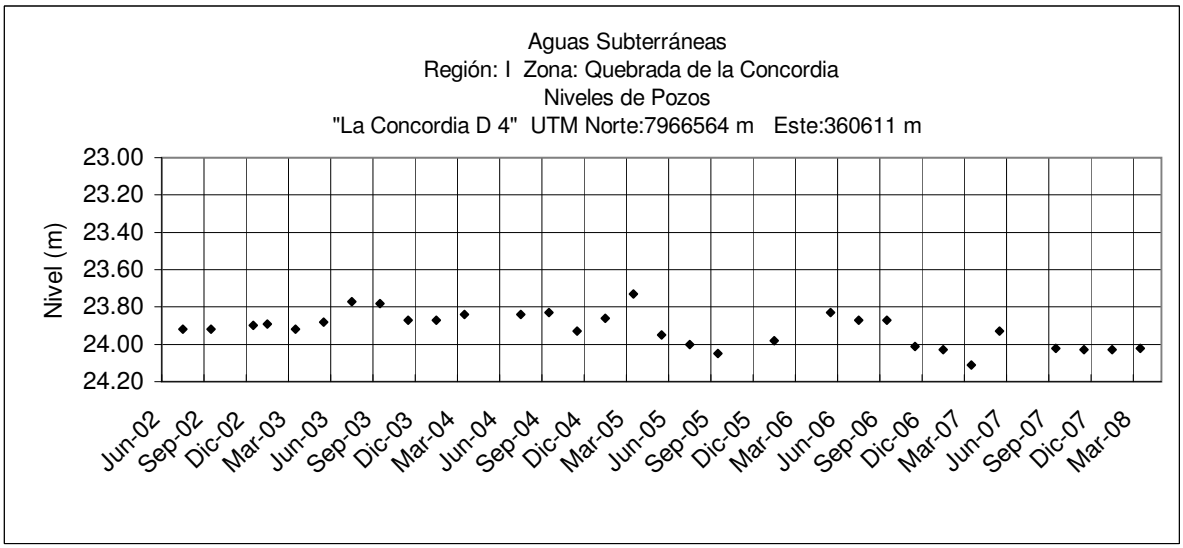



| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Q. 2007/2008** | 47 | 51 | 104 | 232 | 178 | 146 | 124 | 90 | 53 | 35 | 24 | 23 |
| **Q.Promedio** | 61 | 155 | 255 | 284 | 243 | 201 | 164 | 122 | 98 | 61 | 48 | 42 |
| **Q.Mín.98/99** | 32 | 38 | 47 | 80 | 107 | 85 | 51 | 29 | 23 | 17 | 16 | 16 |

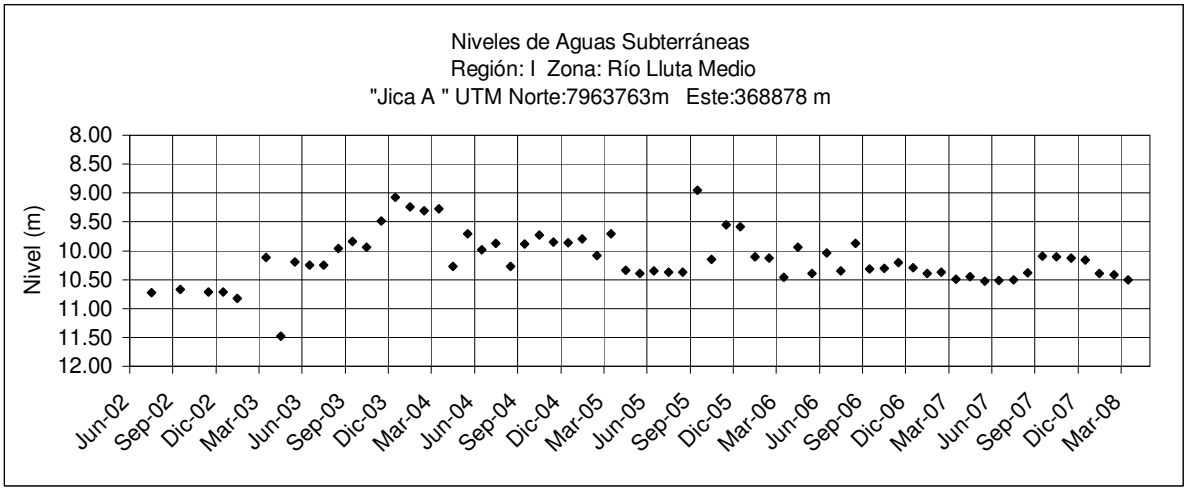
**Informe de Aguas Subterráneas**

Niveles de Pozos en metros

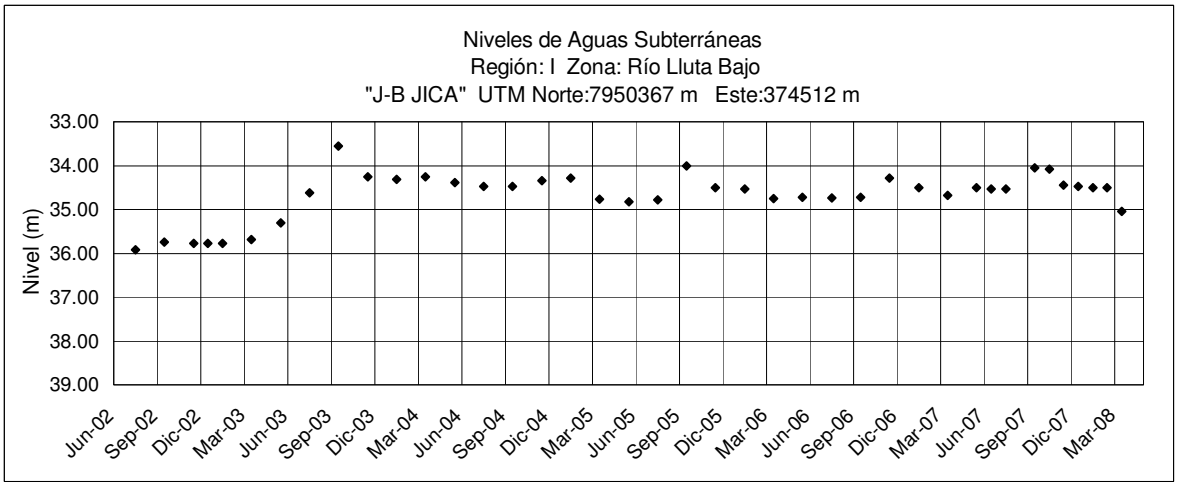
*Gráficos de últimos cinco años.



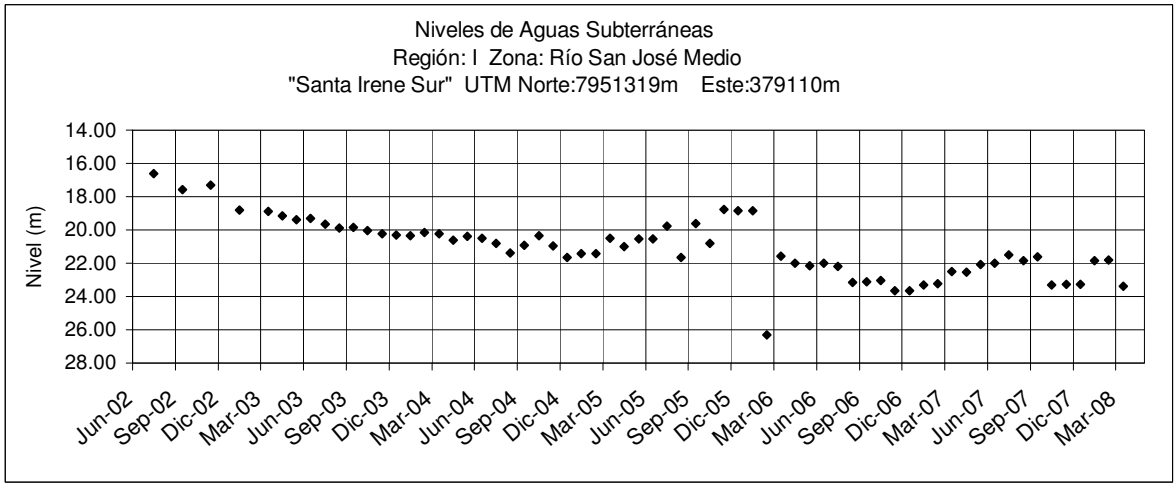

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | . | 23.93 | . | . | | 24.02 | | 24.03 | . | 24.03 | | 24.02 |



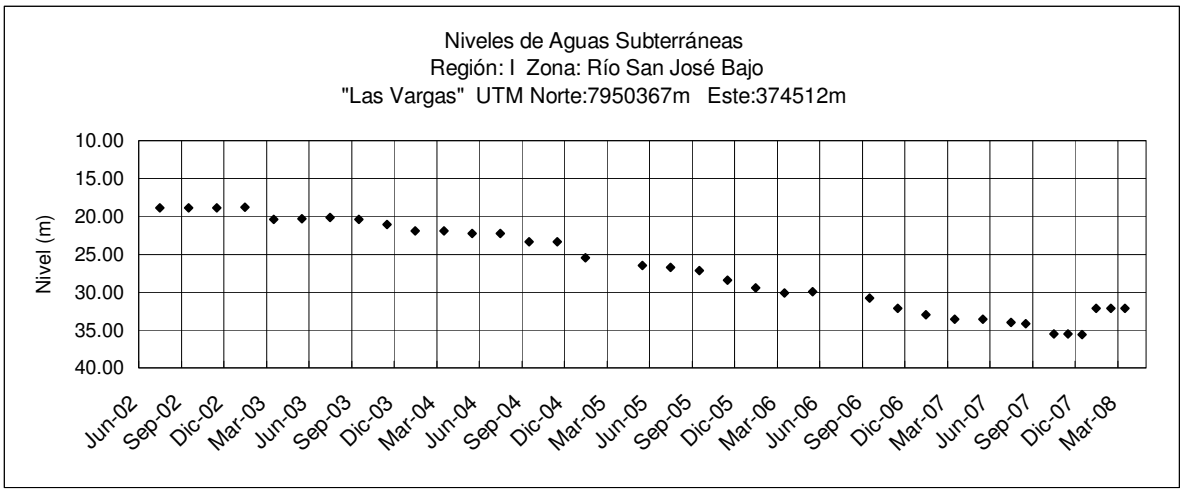

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 10.45 | 10.53 | 10.51 | 10.50 | 10.38 | 10.09 | 10.10 | 10.13 | 10.16 | 10.39 | 10.42 | 10.50 |



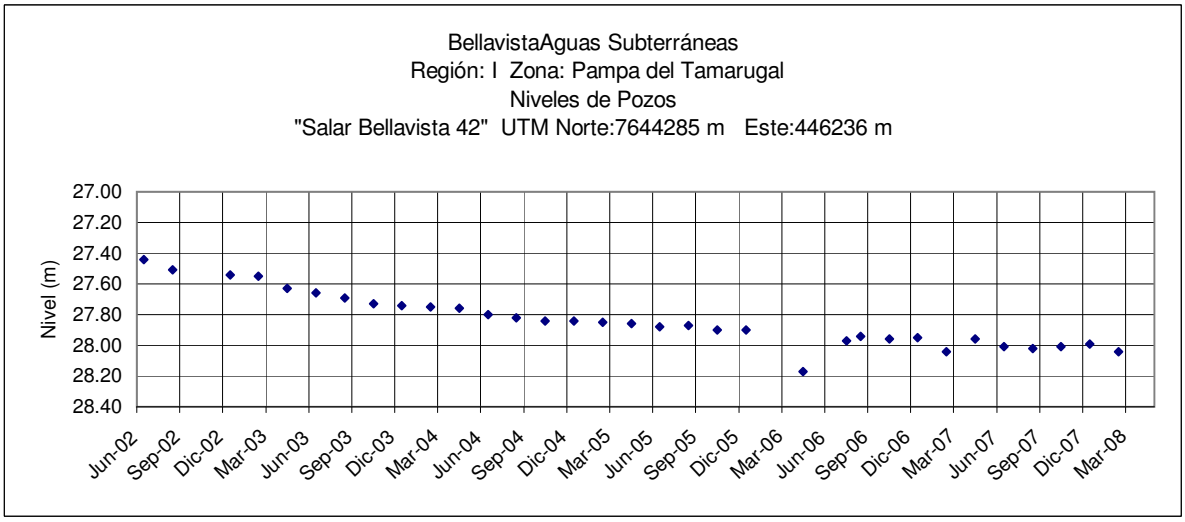

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | . | 34.51 | 34.54 | 34.53 | | 34.05 | 34.08 | 34.45 | 34.47 | 34.51 | 34.50 | 35.05 |



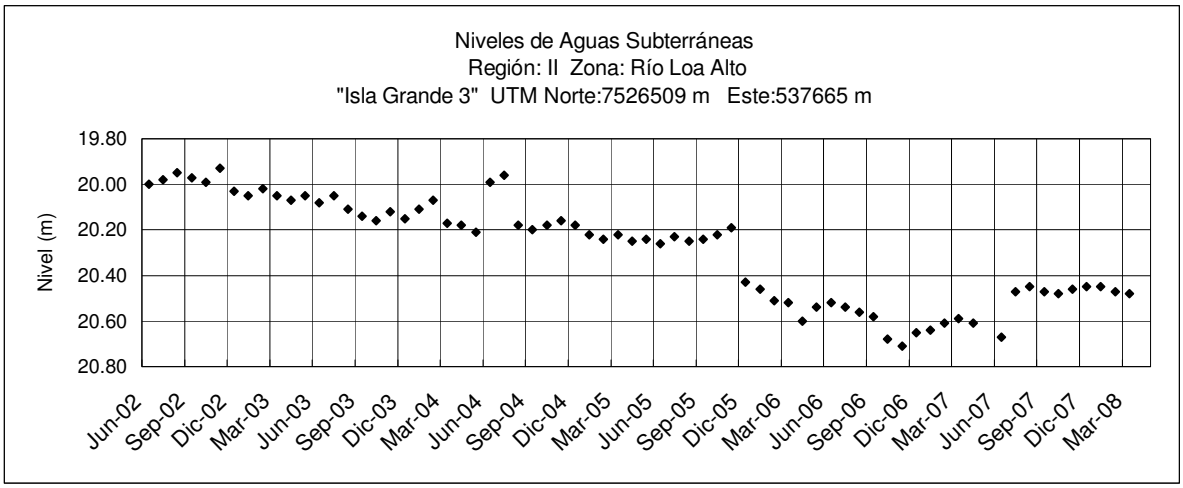

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 22.53 | 22.06 | 22.01 | 21.49 | 21.86 | 21.62 | 23.30 | 23.27 | 23.25 | 21.84 | 21.82 | 23.40 |



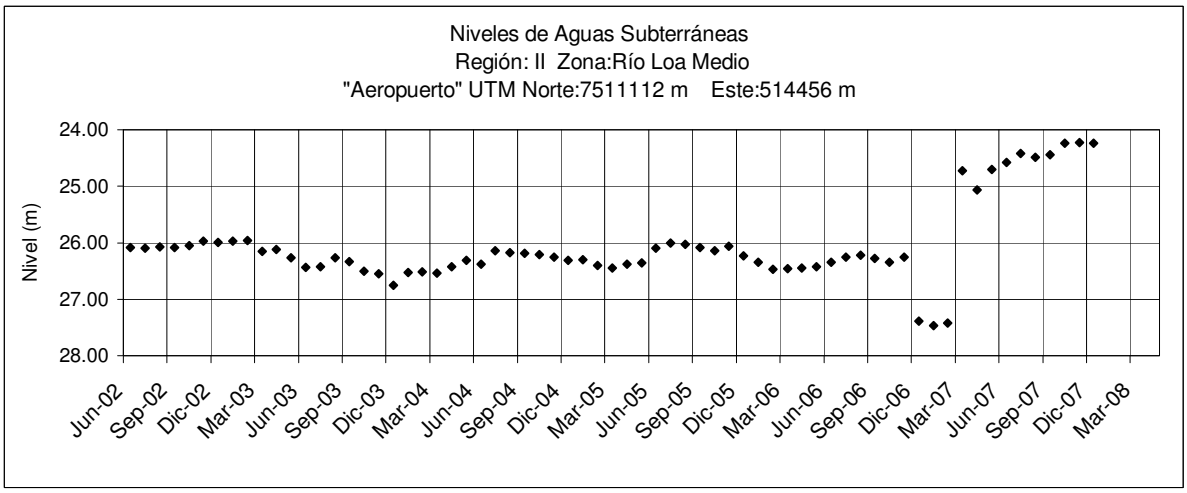

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | . | 33.61 | 33.59 | 34.00 | 34.13 | Seco | 35.56 | 35.55 | 35.57 | 32.12 | 32.10 | 32.15 |



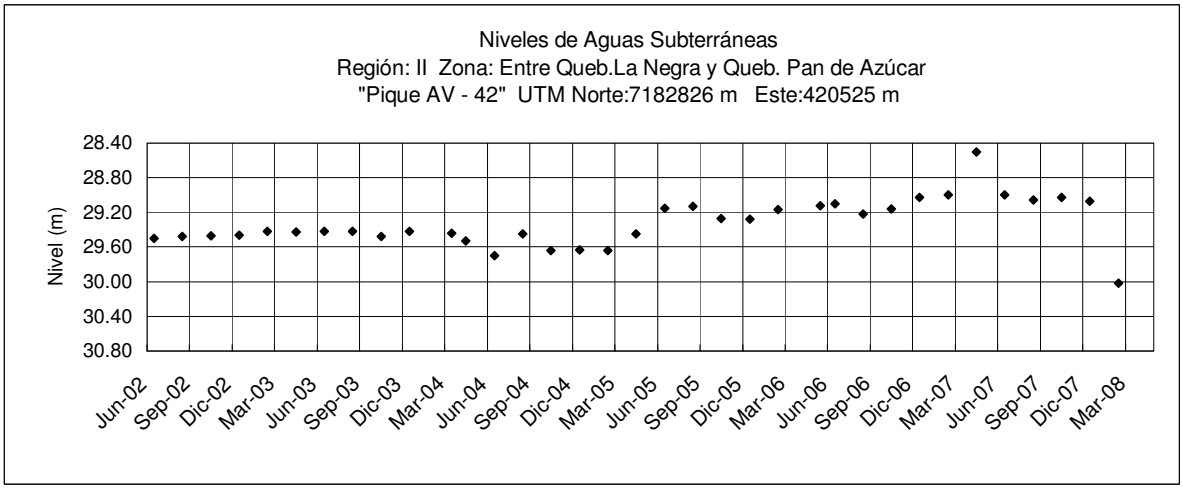

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 27.96 | . | 28.01 | . | 28.02 | . | 28.01 | | 27.99 | | 28.04 | |



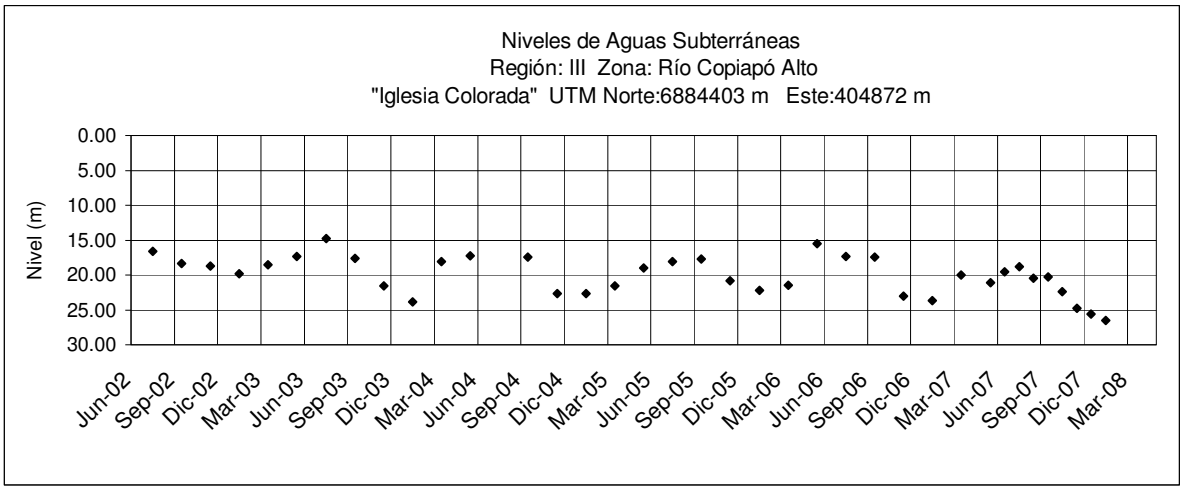

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 20.61 | . | 20.67 | 20.47 | 20.45 | 20.47 | 20.48 | 20.46 | 20.45 | 20.45 | 20.47 | 20.48 |



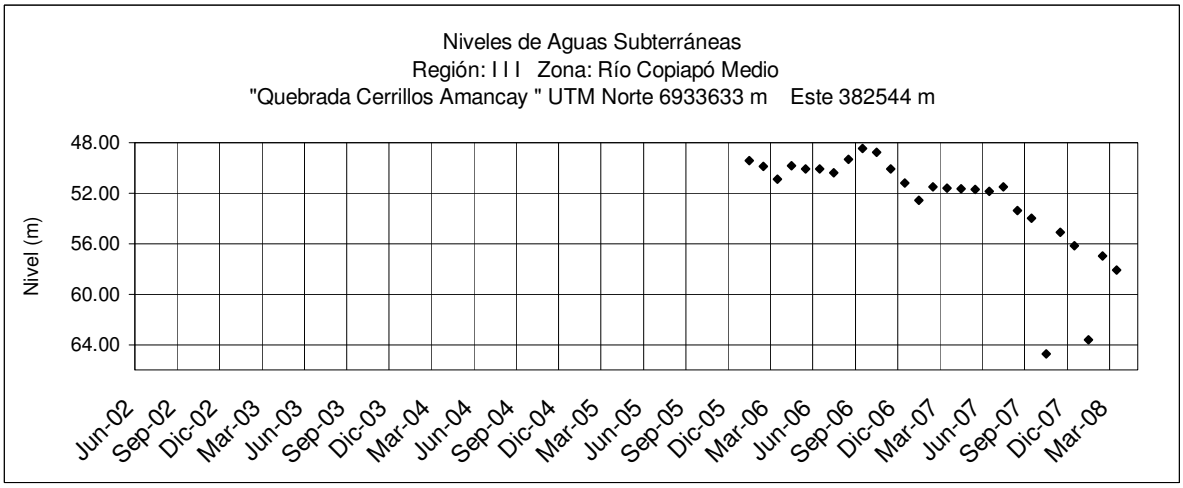

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 25.07 | 24.70 | 24.58 | 24.42 | 24.49 | 24.44 | 24.24 | 24.23 | 24.24 | | | |
| | | | | | | | | | | Sin Acceso | Sin Acceso | Sin Acceso |



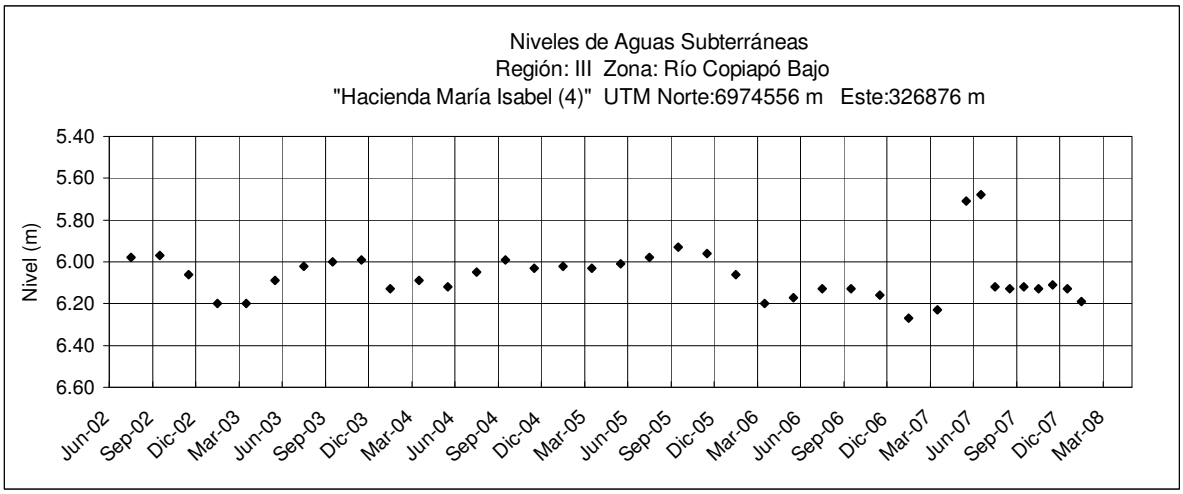

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 28.50 | . | 29.00 | . | 29.06 | . | 29.03 | | 29.07 | | 30.02 | |



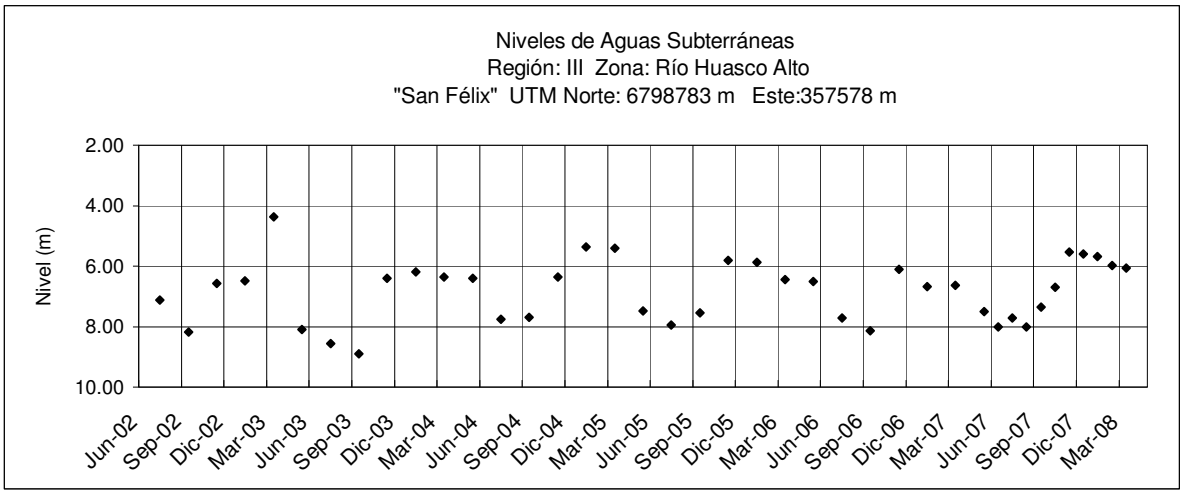

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | . | 21.09 | 19.51 | 18.81 | 20.46 | 20.28 | 22.39 | 24.76 | 25.56 | 26.54 | | |



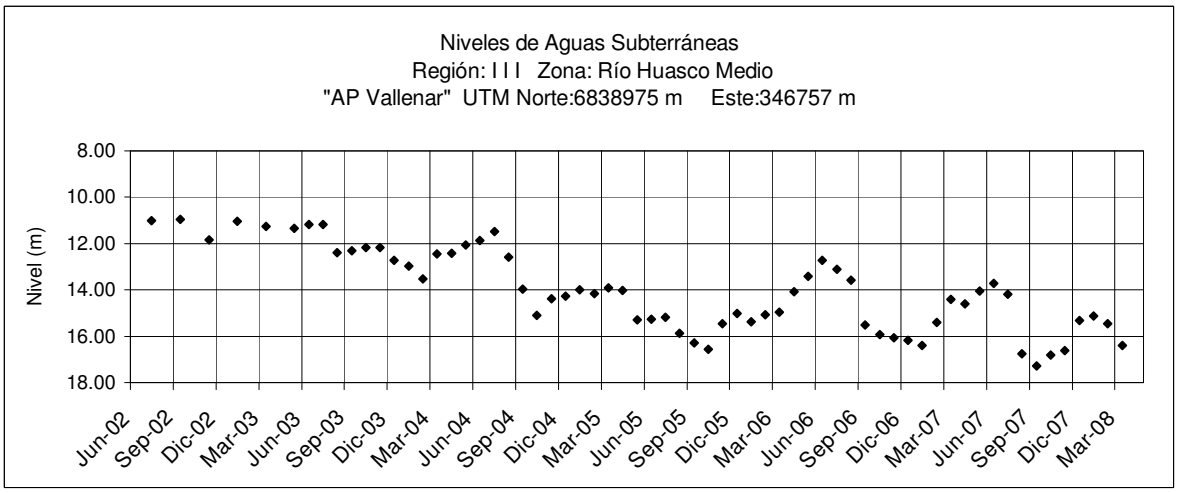

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 51.63 | 51.69 | 51.87 | 51.51 | 53.35 | 53.96 | 64.72 | 55.09 | 56.14 | 63.61 | 56.96 | 58.11 |
| | | | | | | | Dinámico | | | Dinámico | | |



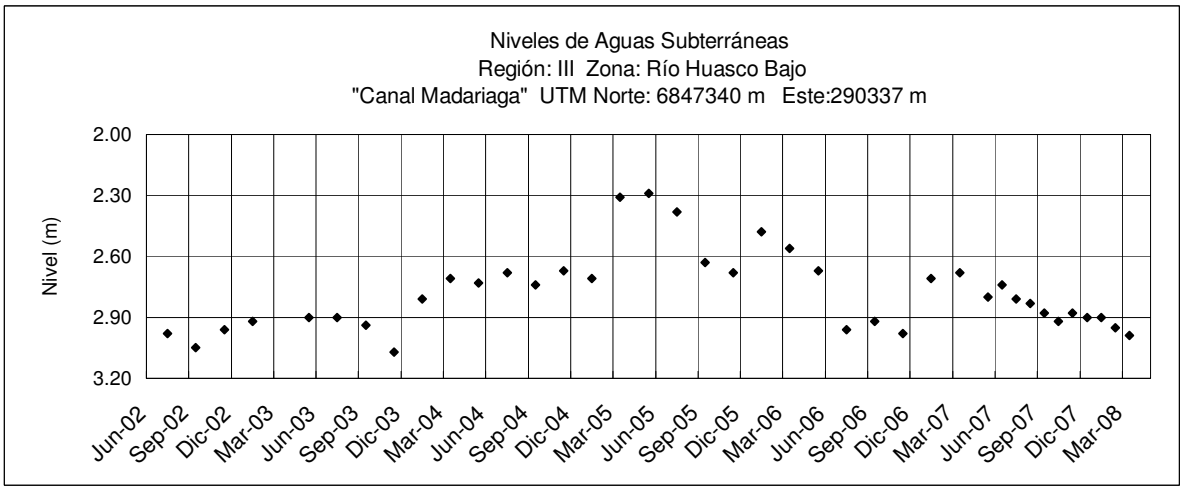

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | . | 5.71 | 5.68 | 6.12 | 6.13 | 6.12 | 6.13 | 6.11 | 6.13 | 6.19 | | |



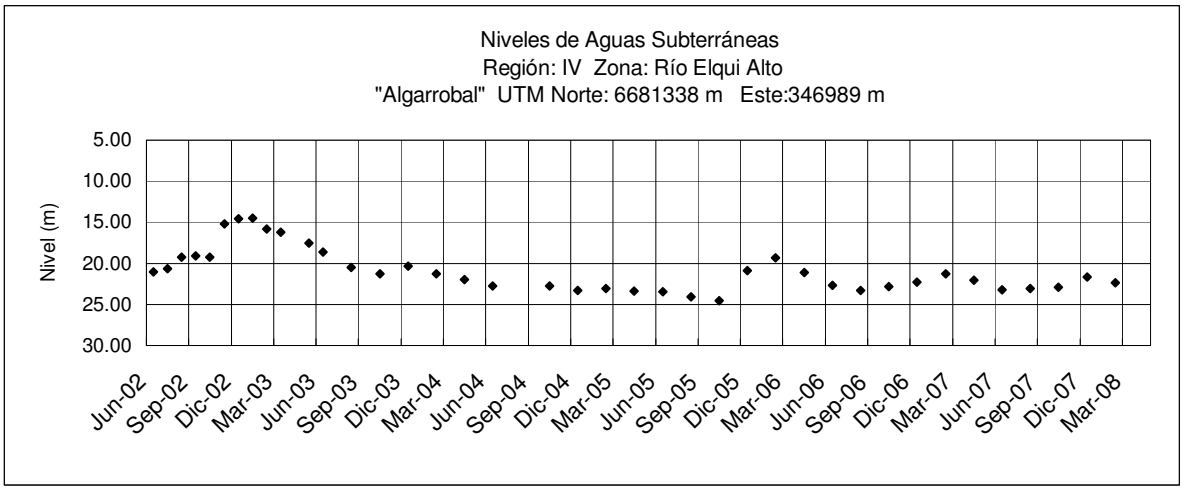

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | . | 7.50 | 8.01 | 7.72 | 8.00 | 7.35 | 6.69 | 5.53 | 5.59 | 5.68 | 5.98 | 6.07 |



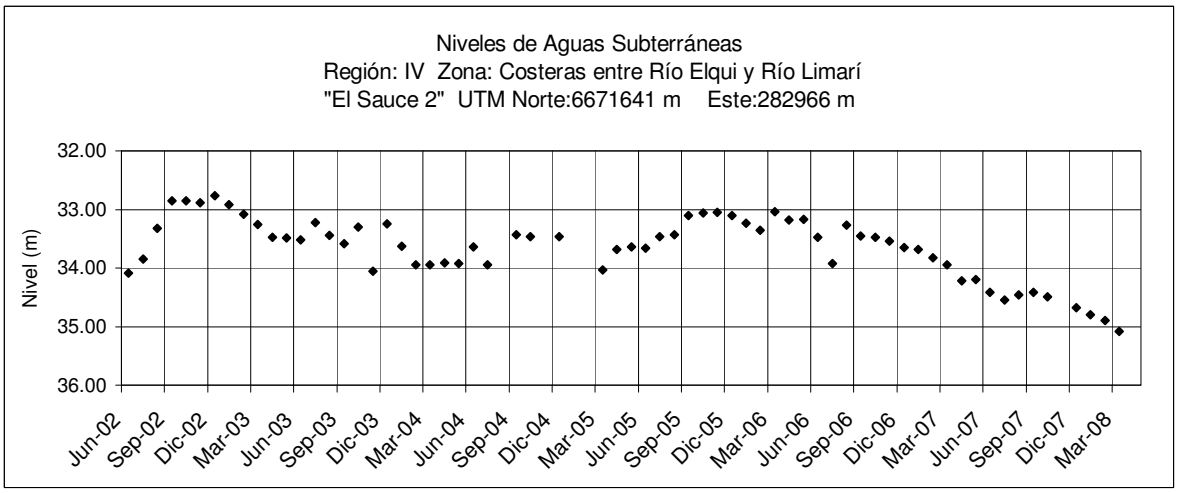

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 14.61 | 14.05 | 13.71 | 14.19 | 16.76 | 17.27 | 16.80 | 16.61 | 15.31 | 15.14 | 15.45 | 16.40 |



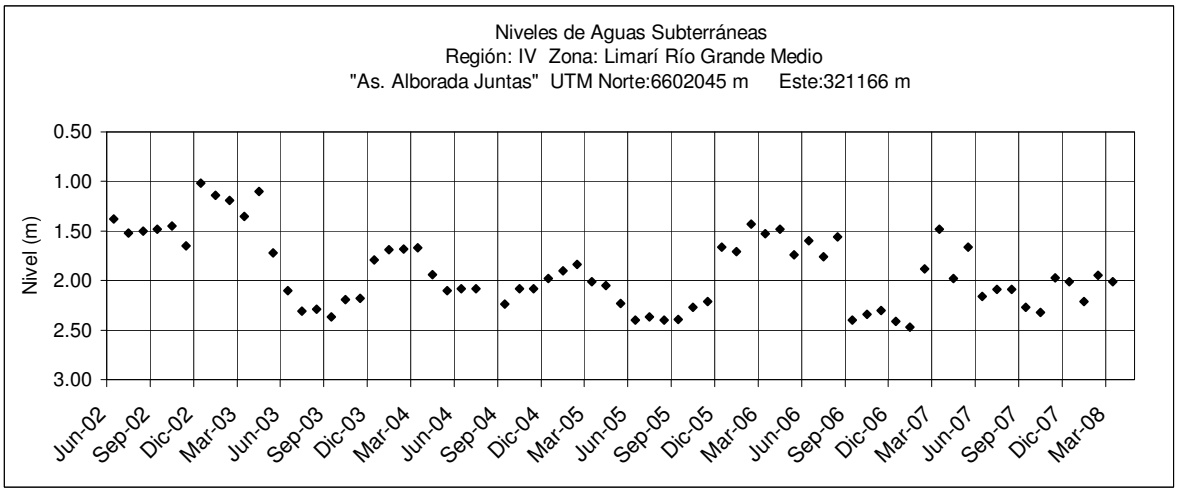

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | . | 2.80 | 2.74 | 2.81 | 2.83 | 2.88 | 2.92 | 2.88 | 2.90 | 2.90 | 2.95 | 2.99 |



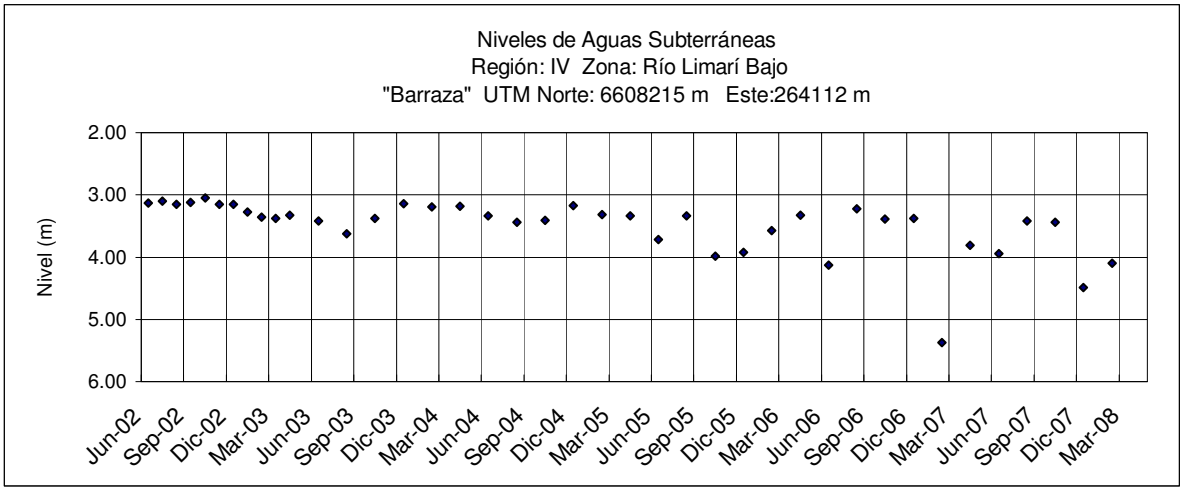

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 22.09 | . | 23.22 | . | 23.08 | . | 22.93 | | 21.67 | | 22.33 | |



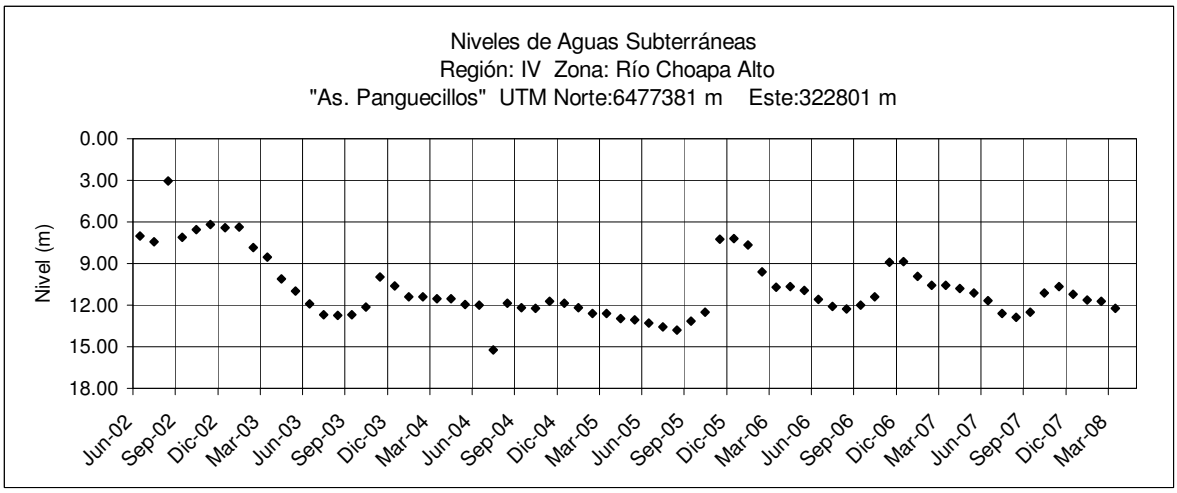

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 34.22 | 34.20 | 34.42 | 34.55 | 34.46 | 34.41 | 34.49 | | 34.68 | 34.80 | 34.90 | 35.08 |



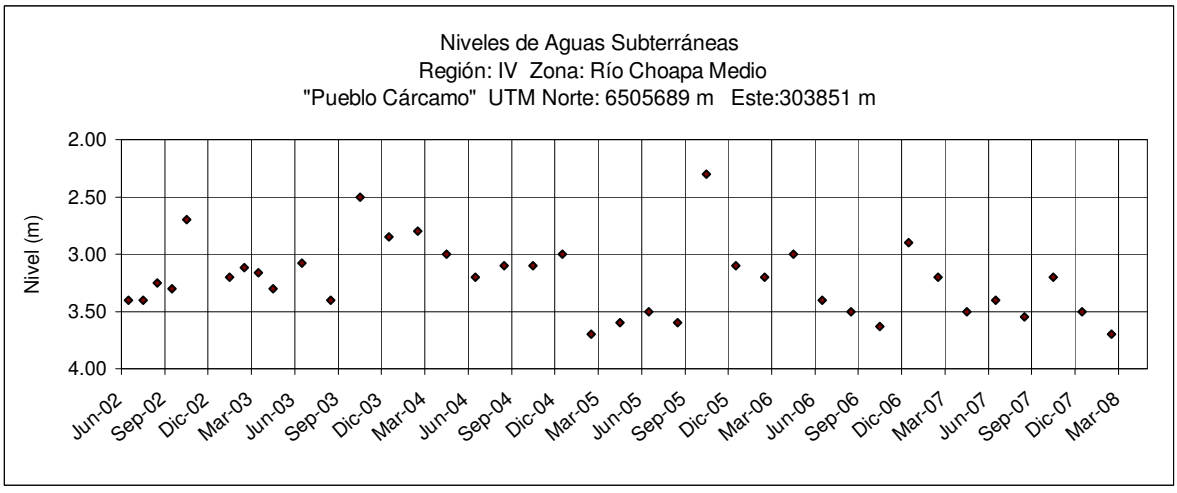

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 1.98 | 1.66 | 2.16 | 2.09 | 2.09 | 2.27 | 2.32 | 1.97 | 2.01 | 2.21 | 1.95 | 2.01 |



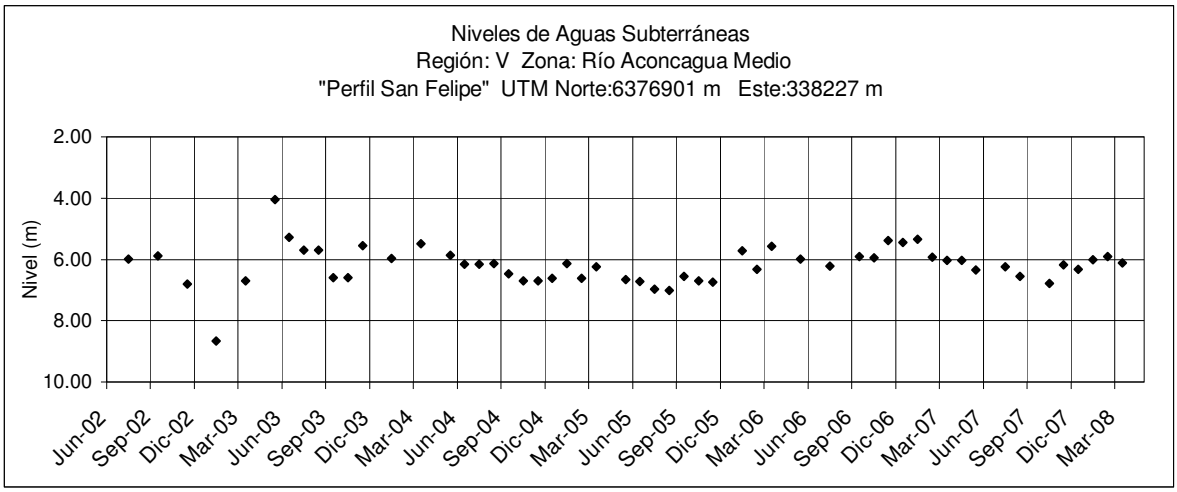

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 3.81 | . | 3.94 | . | 3.42 | . | 3.44 | | 4.49 | | 4.10 | |



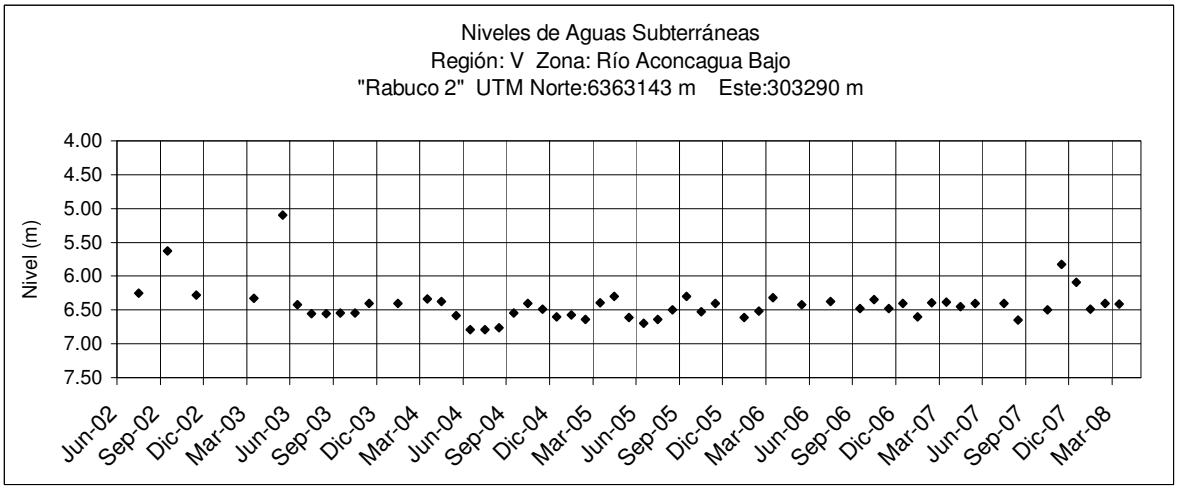

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 10.80 | 11.12 | 11.68 | 12.60 | 12.88 | | 11.10 | 10.68 | 11.20 | 11.63 | 11.72 | 12.24 |



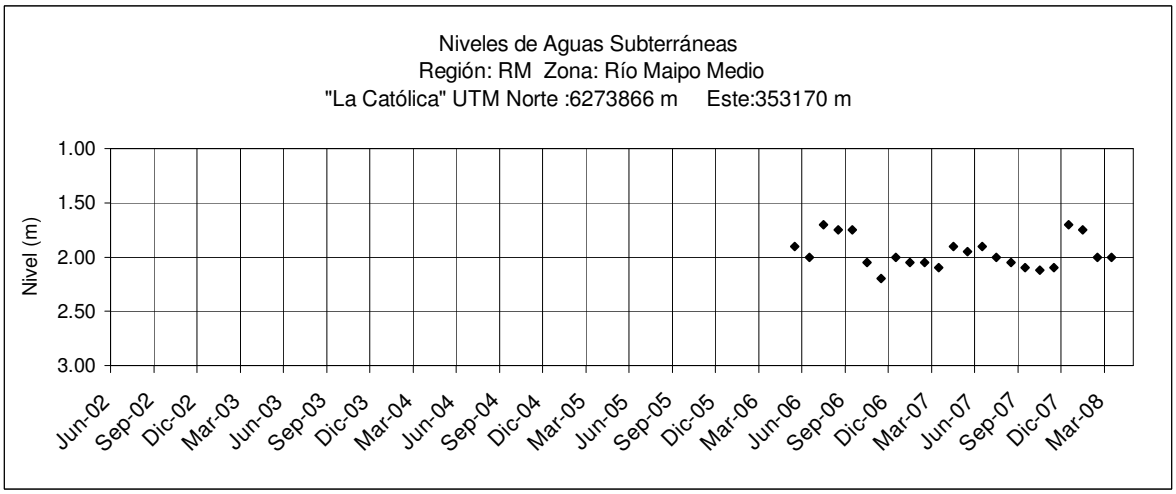

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 3.50 | . | 3.40 | . | 3.55 | . | 3.20 | | 3.50 | | 3.70 | |



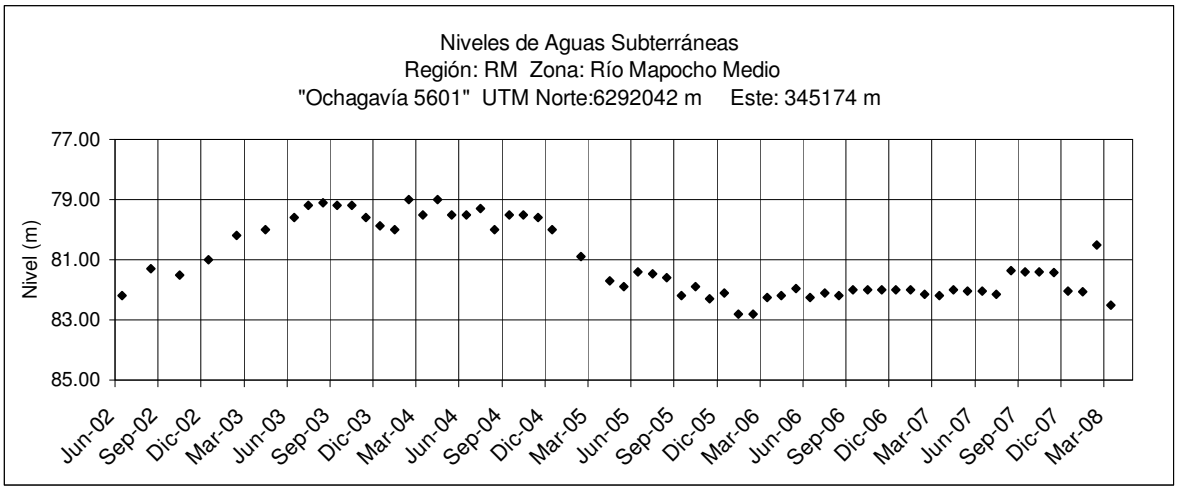

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 6.03 | 6.35 | . | 6.25 | 6.55 | | 6.79 | 6.17 | 6.32 | 6.02 | 5.91 | 6.11 |



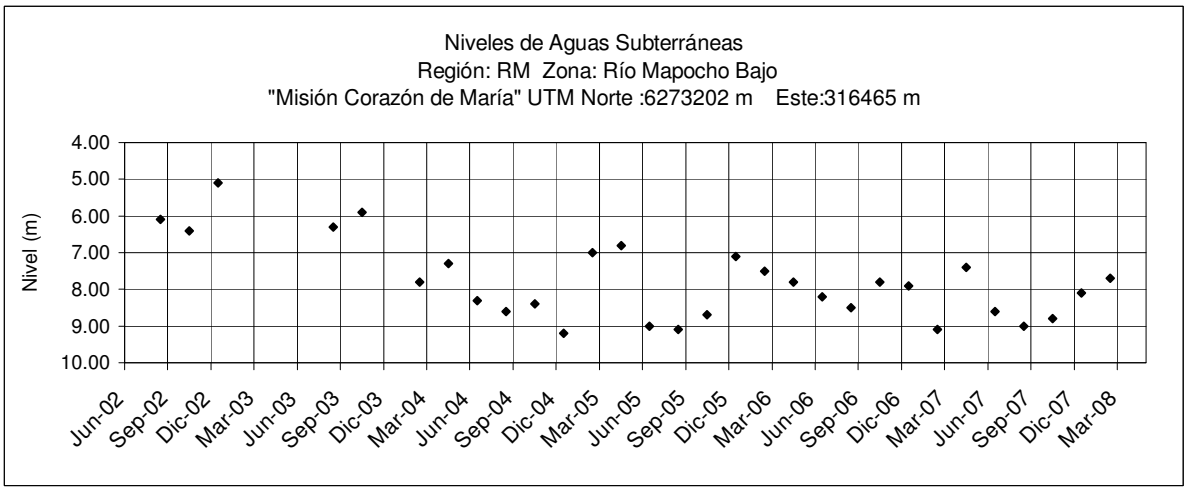

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 6.45 | 6.40 | . | 6.40 | 6.65 | | 6.50 | 5.83 | 6.09 | 6.49 | 6.40 | 6.41 |



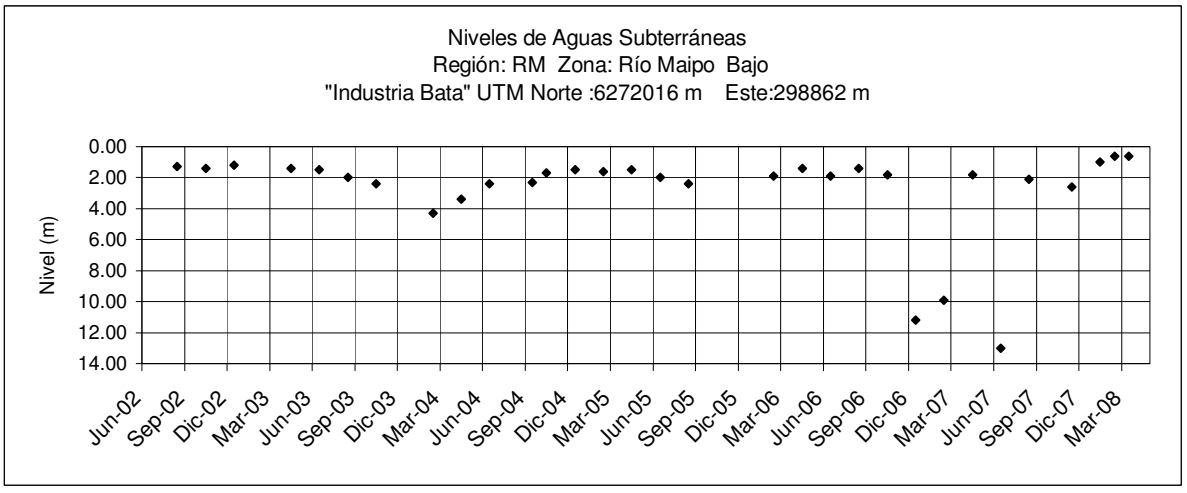

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 1.90 | 1.95 | 1.90 | 2.00 | 2.05 | 2.10 | 2.12 | 2.10 | 1.70 | 1.75 | 2.00 | 2.00 |



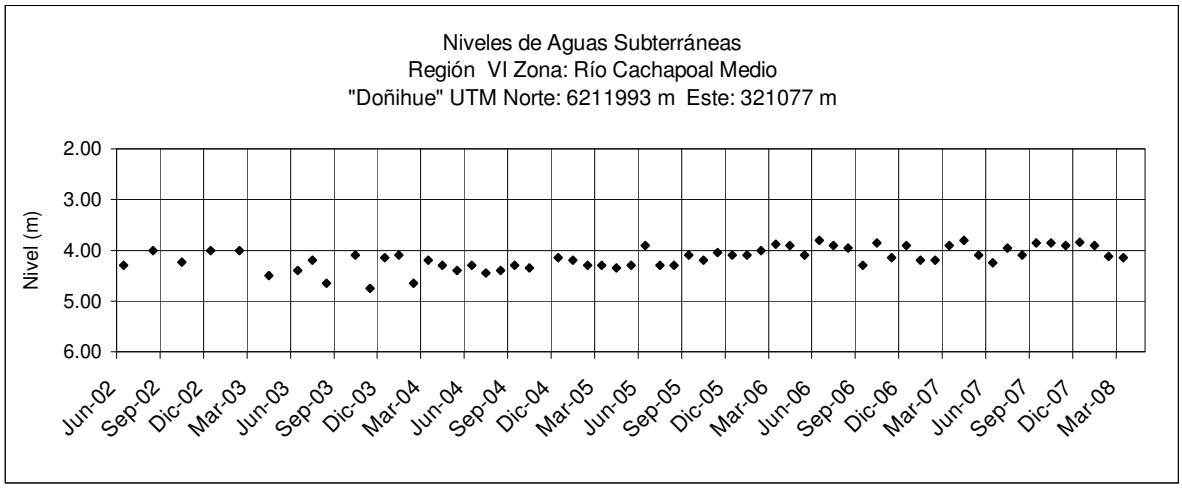

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 82.00 | 82.05 | 82.05 | 82.15 | 81.36 | 81.40 | 81.41 | 81.43 | 82.05 | 82.07 | 80.50 | 82.50 |



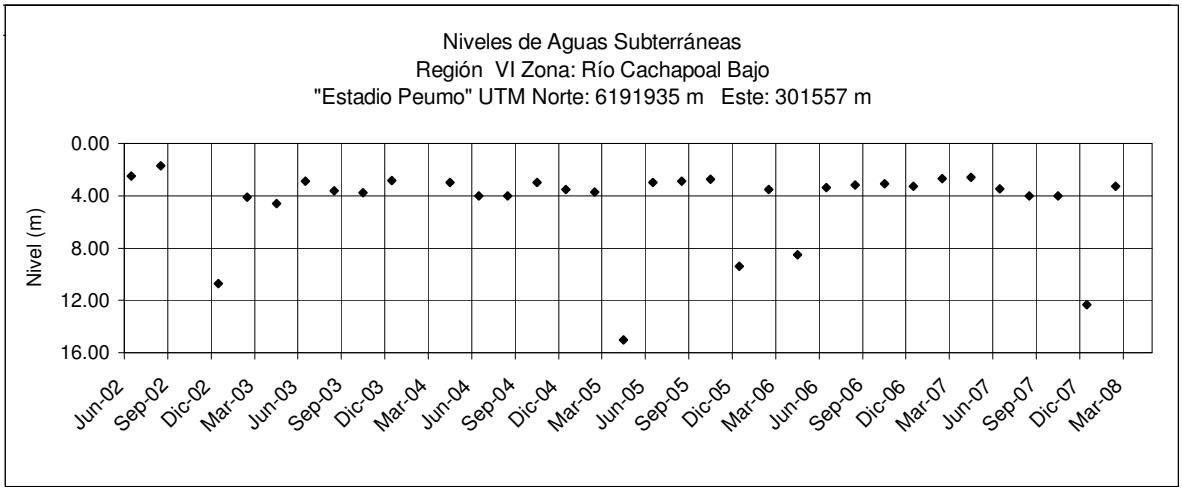

| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 7.40 | . | 8.60 | . | 9.00 | . | 8.80 | | 8.10 | | 7.70 | |




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 1.80 | . | 13.00 | . | 2.10 | . | | 2.60 | | 1.00 | 0.64 | 0.60 |

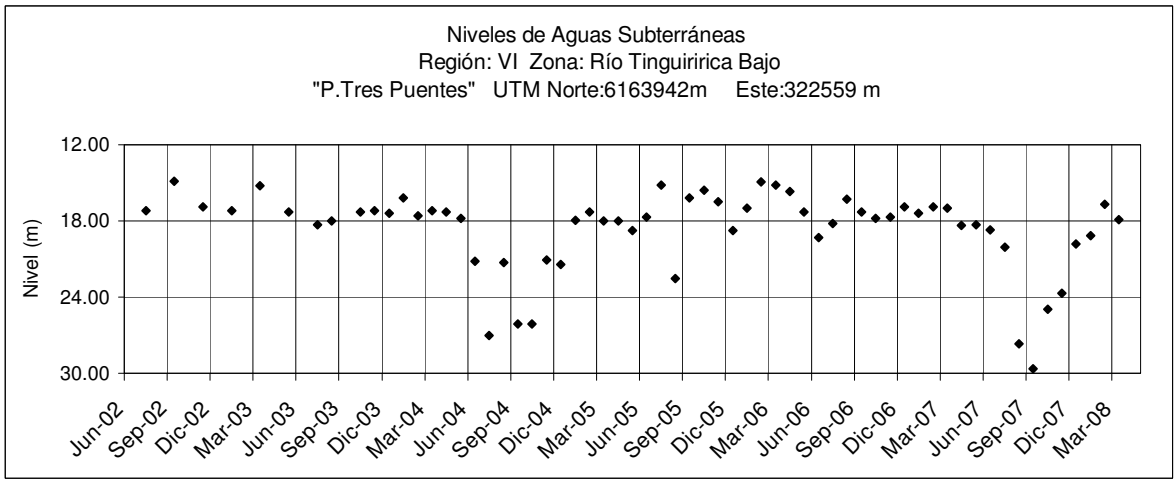



| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 3.80 | 4.10 | 4.25 | 3.95 | 4.10 | 3.86 | 3.85 | 3.90 | 3.84 | 3.90 | 4.12 | 4.15 |

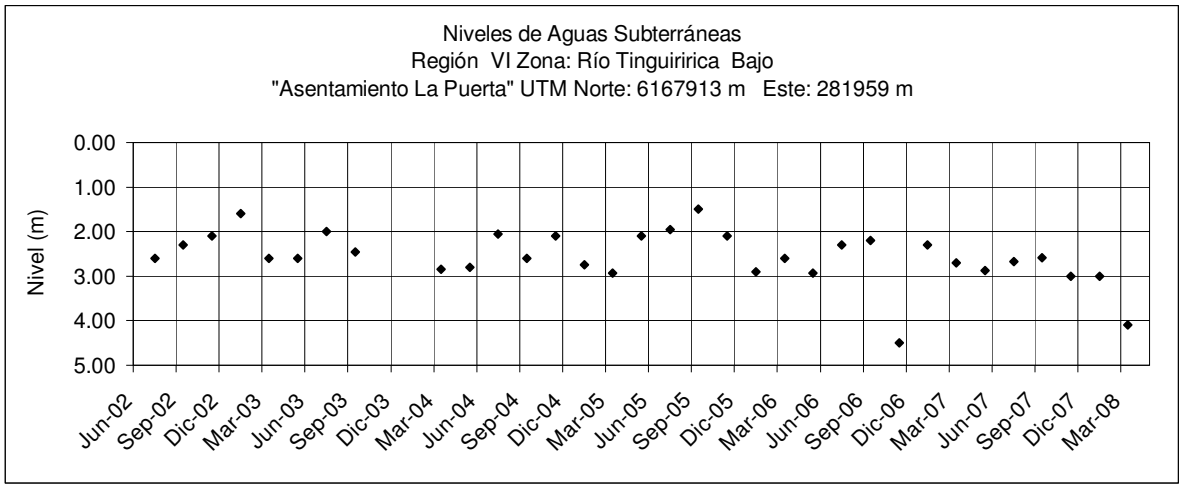



| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 2.60 | . | 3.48 | . | 4.02 | . | 4.20 | | 12.34 | | 3.30 | |

Dinámico




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | 18.37 | 18.32 | 18.70 | 20.08 | 27.70 | 29.65 | 24.97 | 23.70 | 19.80 | 19.17 | 16.70 | 17.90 |




| | Abr | May | Jun | Jul | Ago | Sep | Oct | Nov | Dic | Ene | Feb | Mar |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 - 2008 | . | 2.87 | . | 2.67 | . | 2.58 | | 3.00 | | 3.00 | . | 4.10 |

# SITUACIÓN HIDROLÓGICA DEL MES DE MARZO DE 2008

## LLUVIA

Durante el mes de Marzo, específicamente el día 7, se registraron precipitaciones desde las regiones de Valparaíso al sur lo que rápidamente revirtió la situación de escasez pluviométrica existente en las regiones de Valparaíso, Metropolitana y de O'Higgins, debido a que, en ellas, para los primeros meses del año los valores promedios, son menores y fácilmente superables con una lluvia. Sin embargo, la escasez de precipitaciones desde la región del Maule al sur se mantiene siendo las más afectadas la región de Maule y la del Bío-Bío con déficit que fluctúan entre un 90% y un 75 %, respectivamente.

El fenómeno de "La Niña" se ha mantenido durante el presente mes y su tendencia es a disminuir pero con perspectivas de que se mantengan las precipitaciones bajo sus valores normales durante el primer semestre del año.

## NIEVE

En el mes, se registraron leves precipitaciones sólidas en el sector central de la cordillera de Los Andes sobre los 4000 mts., sin mayor incidencia por la época del año.

## CAUDALES

Los caudales han continuado disminuyendo, como es lo normal en este período, a tasas muy similares a las del mes anterior manteniéndose todos por debajo de su promedio estadístico pero por encima de sus mínimos históricos.

## EMBALSES

El embalse Lautaro, de la Región de Atacama, mantuvo el volumen acumulado del mes anterior en a 8 mill-m3, valor inferior a los 12 mill-m3 que es su promedio histórico para este mes. A igual fecha el año pasado el embalse acumulaba sólo 0.5 mill-m3.

Los embalses de la cuenca del río Elqui también se mantienen prácticamente igual al mes pasado con 26 mill-m3 en el Embalse La Laguna y 200 mill-m3 en el Embalse Puclaro, volumen muy similar al registrado a la misma fecha del año 2007 y muy superior a su promedio histórico que es de 24 mill-m3 y 117 mill-m3 respectivamente..

Los Embalses del Sistema Paloma disminuyeron su volumen total en 34 mill-m3, almacenando a la fecha 424 mill-m3, de los cuales 343 mill-m3 corresponden al Embalse La Paloma, 65 mill-m3 al Embalse Recoleta y 16 mill-m3 al Embalse Cogotí, volumen inferior al registrado a la misma fecha del año 2007 (580 mill-m3) y al promedio histórico (528 mill-m3). Como el Sistema debe abastecer en una temporada que se califique como

normal, una demanda anual de 320 mill-m3, aún asegura recursos hídricos para la próxima temporada de riego.

El Embalse Corrales de la cuenca del río Choapa, disminuyó levemente su volumen almacenando 34 mill-m3, valor inferior al registrado a la misma fecha del año 2007 (43 mill-m3) y a su promedio estadístico (39mill-m3), pero aún es un importante apoyo al río Choapa. En esta provincia se ubica además el Embalse Culimo que tiene una capacidad máxima de 10 mill-m3 y actualmente se encuentra seco, debido al déficit de precipitaciones pluviales que afectó a esa provincia y a que, necesariamente, tuvo que ser reparado en su estructura.

El embalse El Yeso, de la Región Metropolitana, acumula 176 mill-m3, valor algo por debajo del promedio histórico a la fecha (200 mill-m3) y bastante inferior a lo que acumulaba a igual fecha del año pasado (212 mill-m3).

El embalse Rapel aumentó su volumen en 55 mill-m3, disponiendo ahora de 468 mill-m3, inferior a los 579 mill-m3 correspondientes a su promedio histórico y a los 500 mill-m3 de marzo del año pasado.

En la Región VII, el embalse Colbún disminuyó su volumen en 35 mill-m3 con respecto al del mes anterior, almacenando ahora 904 mill-m3. El promedio de marzo en este embalse es de 1057 mill-m3. En la zona alta, Laguna del Maule ha continuado disminuyendo su volumen por tercer mes consecutivo pero a una tasa de 90 mill-m3 mensuales, menor que la de los meses anteriores, almacenando 801 mill-m3, valor inferior a los 968 mill-m3 promedio del mes de marzo, pero que aún constituye una importante reserva de agua en la cuenca, ya sea para riego como para hidroelectricidad.

Más al sur, el Lago Laja disminuyó en 198 mill-m3 su volumen, almacenando ahora 1842 mill-m3, valor bastante inferior a la disponibilidad a igual fecha del año pasado de 3024 mill-m3 y al promedio histórico para el mes de marzo que es de 3479 mill-m3.

El embalse Pangue, bajó en 12 mill-m3 quedando con 44 mill-m3. El embalse Ralco acumula a la fecha 405 mill-m3, prácticamente el mismo volumen del mes anterior, mientras que a igual fecha del año 2007 mantenía 422 mill-m3.

De acuerdo con los Polinomios de Energía con que la CNE calcula la energía almacenada, se puede señalar que los embalses Rapel, Colbún, Lago Laja y Ralco, tomados en conjunto, disponen de 2850 GWh, muy inferior a los 4518 GWh a igual fecha del año pasado, y con una disminución de 273 GWh con respecto a la almacenada el mes de febrero recién pasado. Estos cuatro embalses presentan una situación de menores recursos respecto al 2007, con 51 GWh contra 57 GWh en el Rapel, 348 GWh contra 365 GWh en el embalse Colbún, 2277 GWh contra 3915 en el Lago Laja y 174 GWh contra 181 GWh en el embalse Ralco.

**AGUAS SUBTERRÁNEAS.**

Los acuíferos entre las regiones I y VI, mantienen niveles y fluctuaciones que están dentro de lo normal. Sólo en las cuencas de los ríos San José, Loa Alto y de la Pampa del Tamarugal se observa una tendencia a la baja que se prolonga por varios años. En la cuenca del río Copiapó en toda su extensión y en la zona costera entre los ríos Elqui y Limarí se observa una tendencia a la baja muy marcada en el último año.