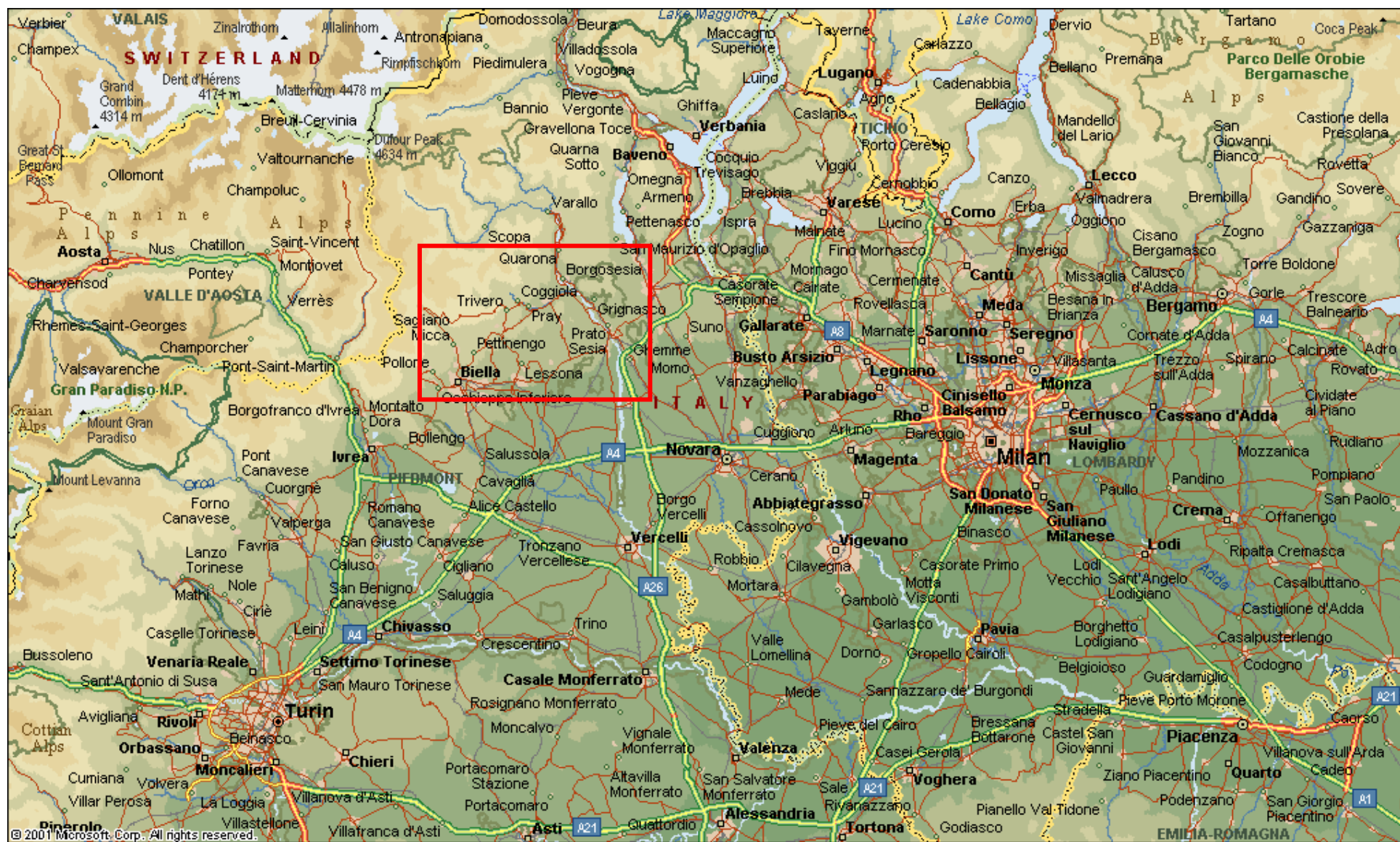
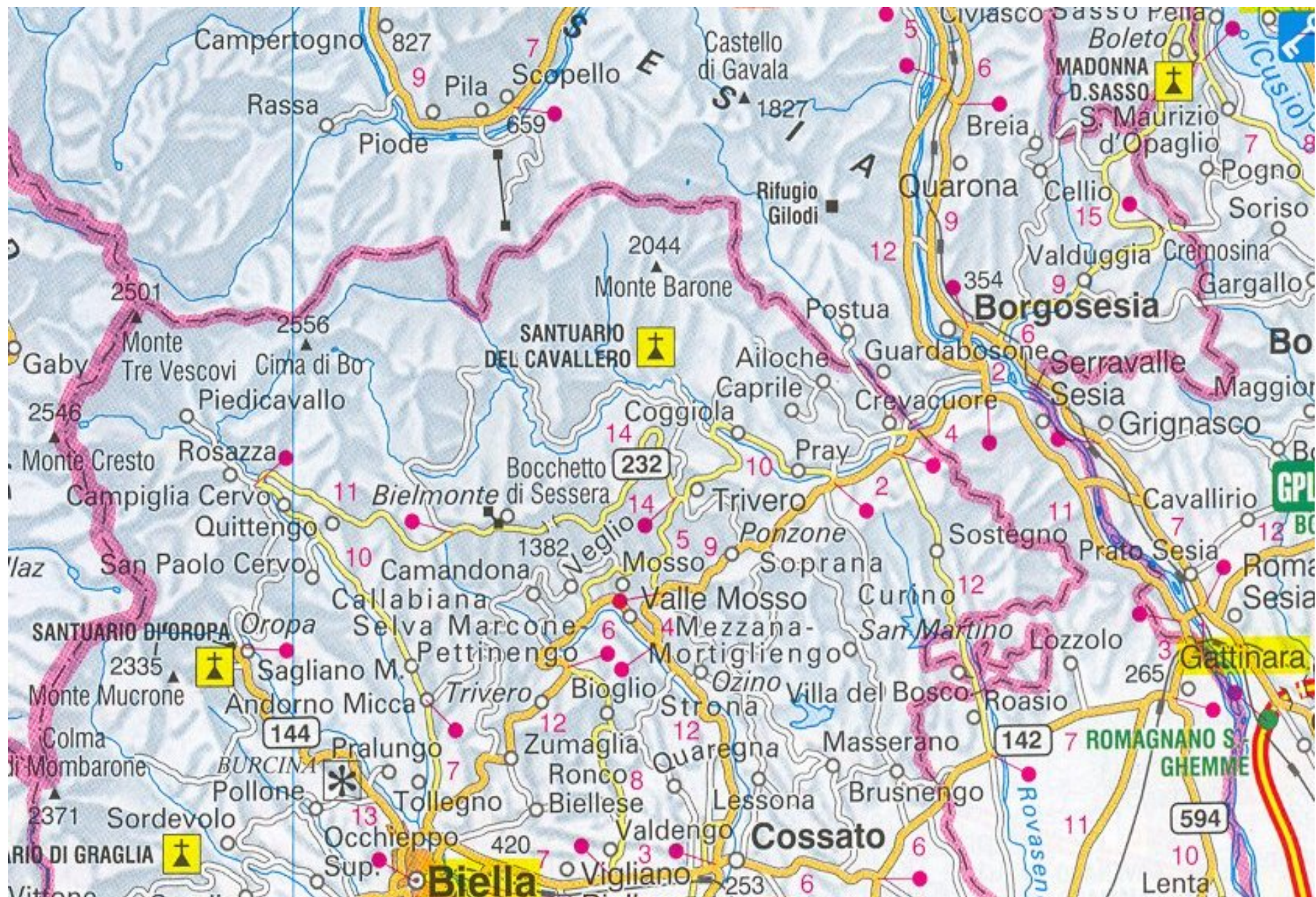


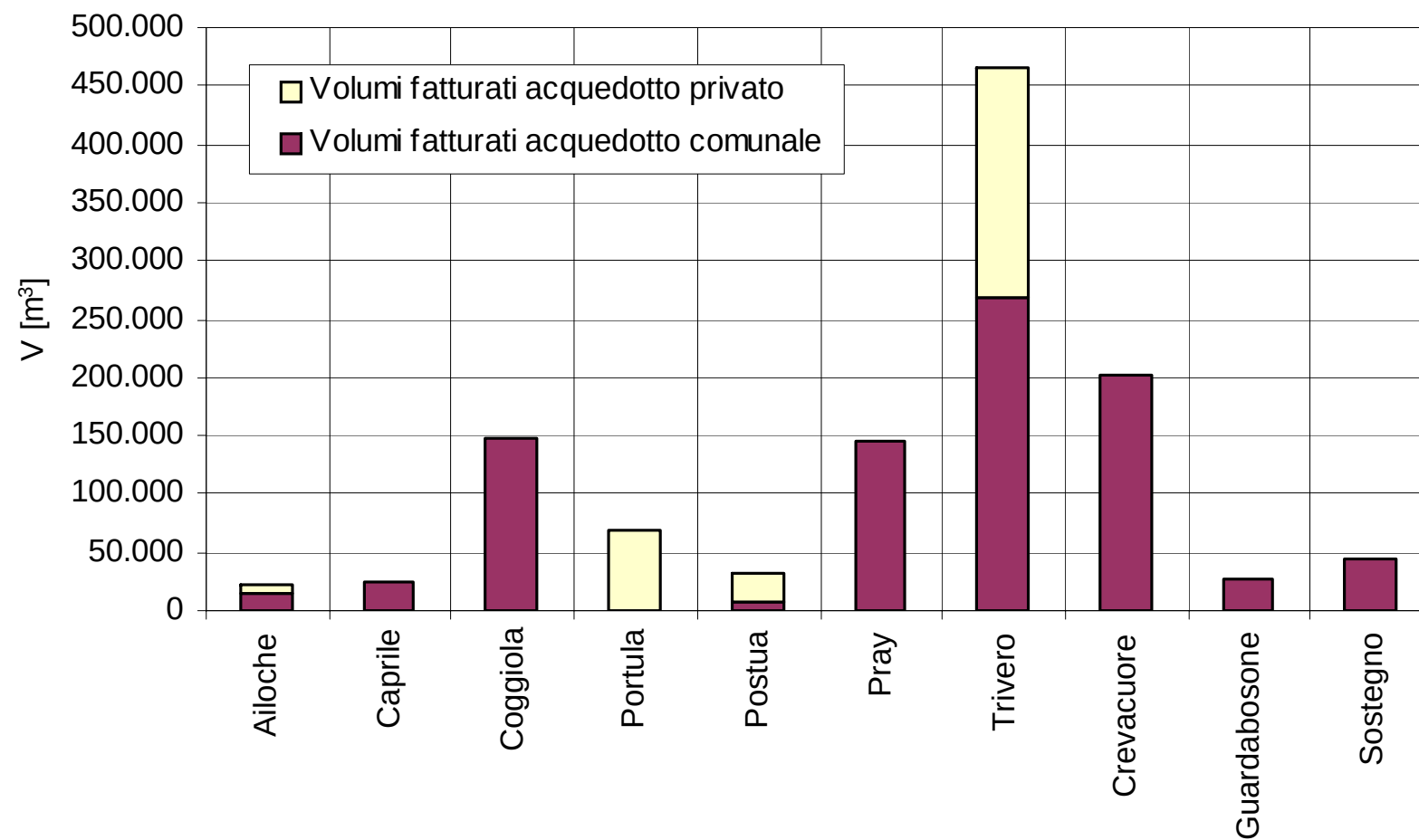
Valutazione di criticità della deficienza idrica 2001-2002 in un sistema acquedottistico montano

P. Claps – F. Laio – A. Viglione
Politecnico di Torino





Volumi fatturati 1996



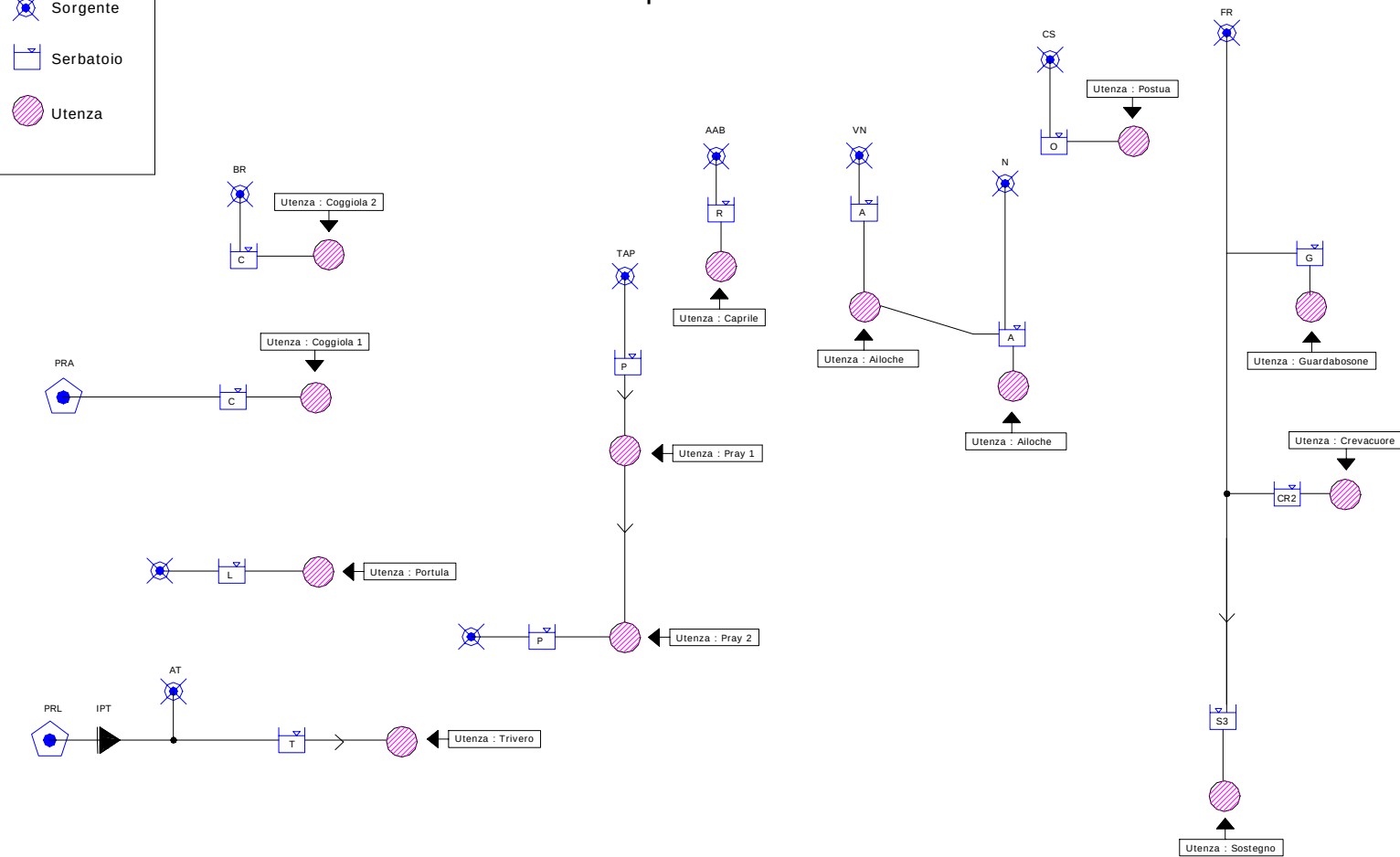
Legenda :

 Sorgente

 Serbatoio

 Utenza

Schemi acquedottistici attuali



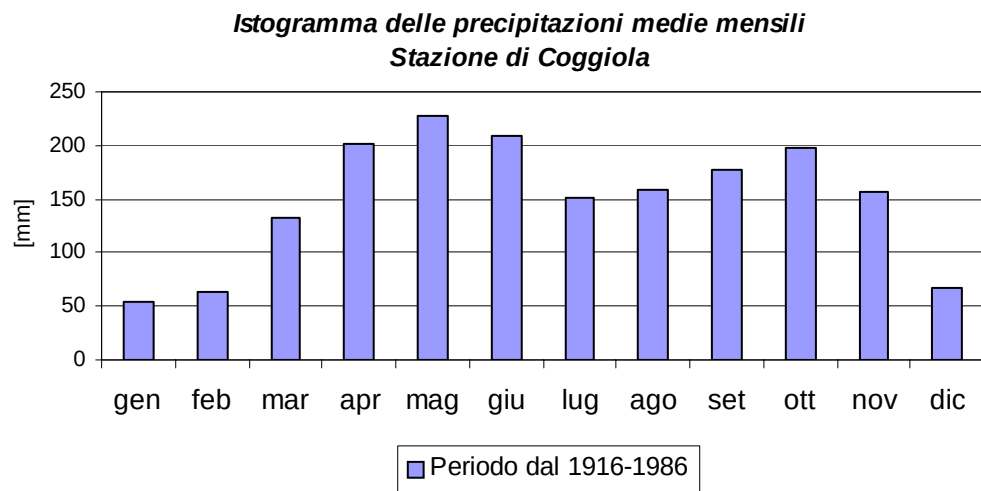
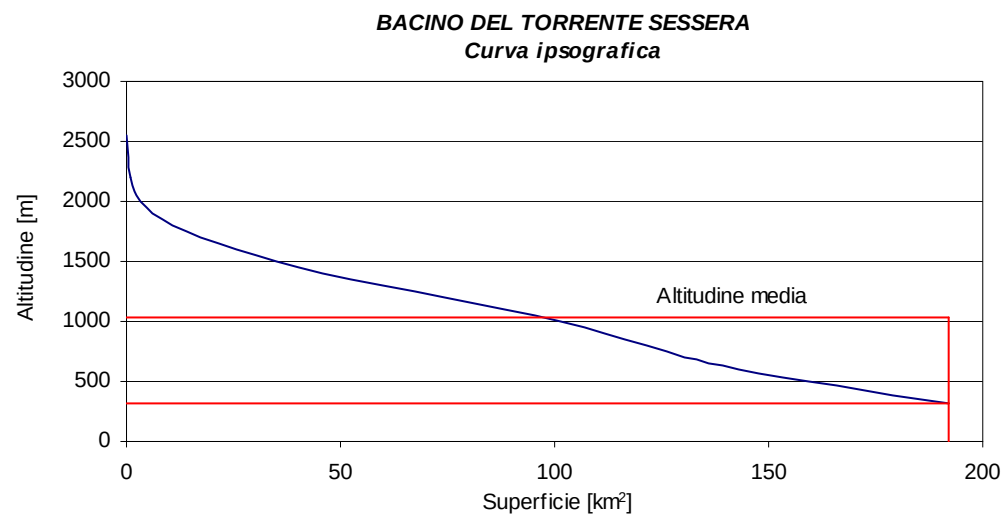
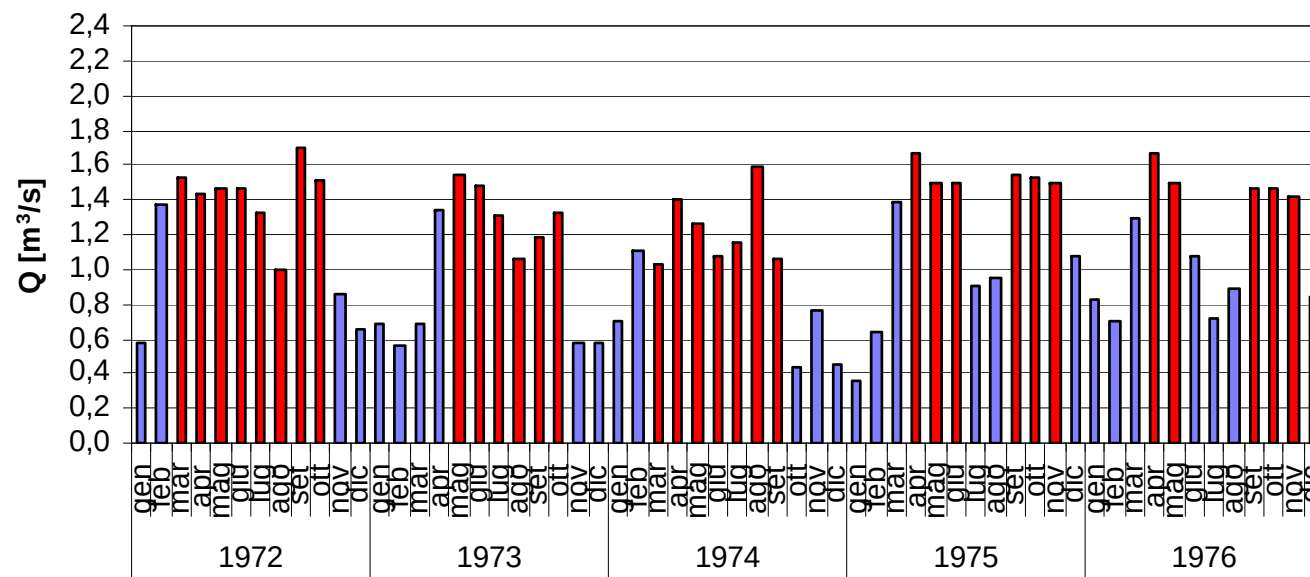
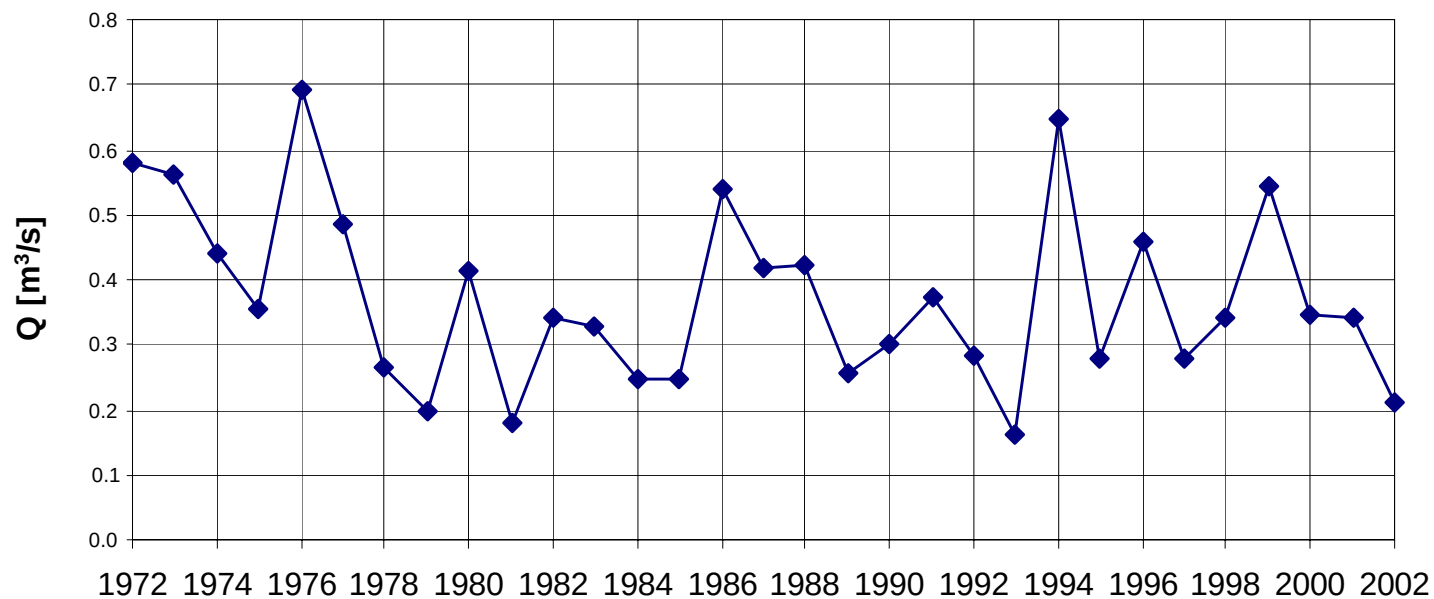


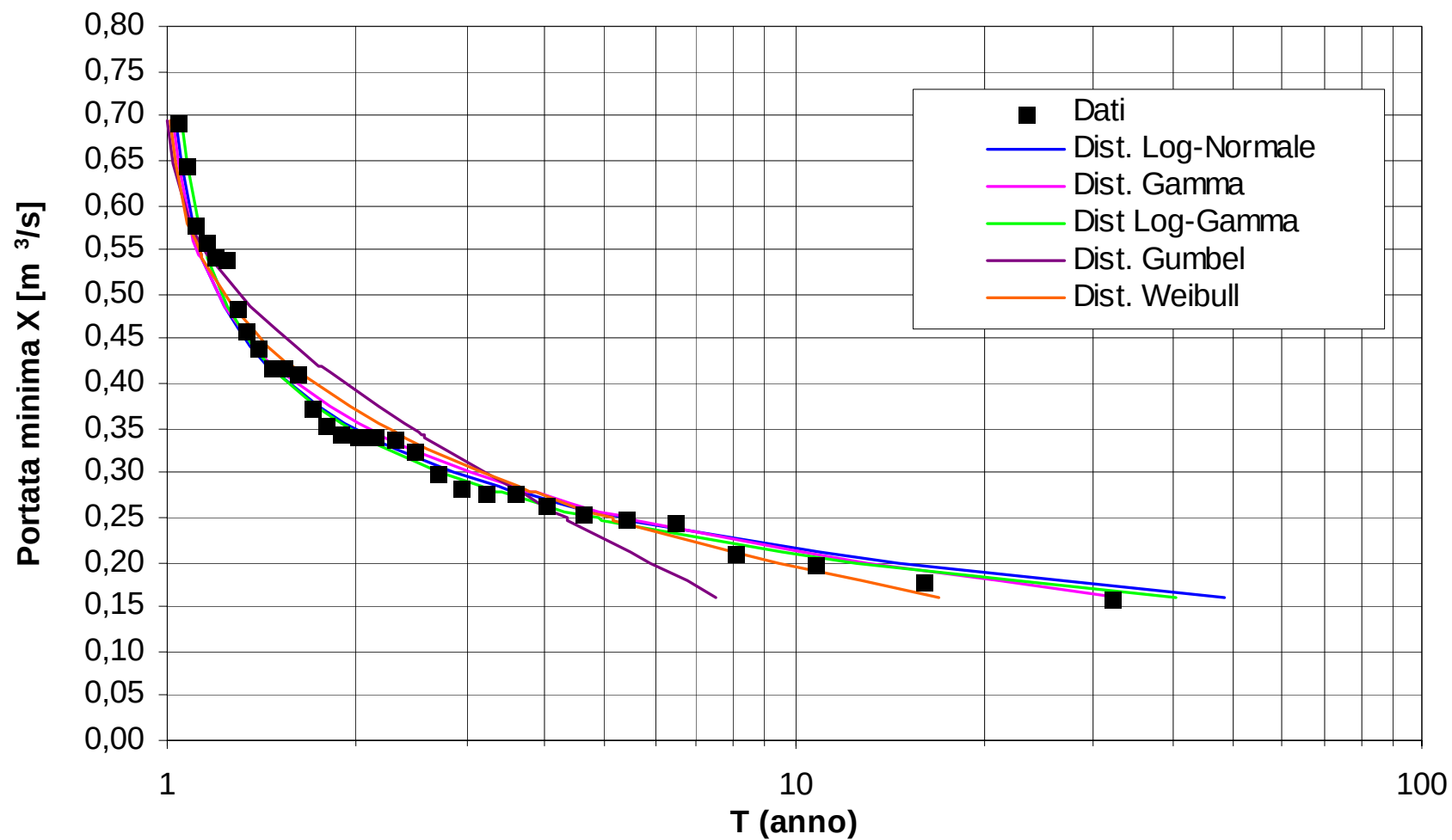
Diagramma cronologico apporti mensili 1972-1976



Invaso del Sessera: Qmed mensili minime annue (1972-2002)



Portata minima annua in funzione del tempo di ritorno



Derivazione sullo Strona	
$Q_{min\ 2002} \text{ [m}^3/\text{s]} =$	0,029
$Q_{media\ minimi} \text{ [m}^3/\text{s]} =$	0,051
$Q_T (T= 20\ anni) \text{ [m}^3/\text{s]} =$	0,025



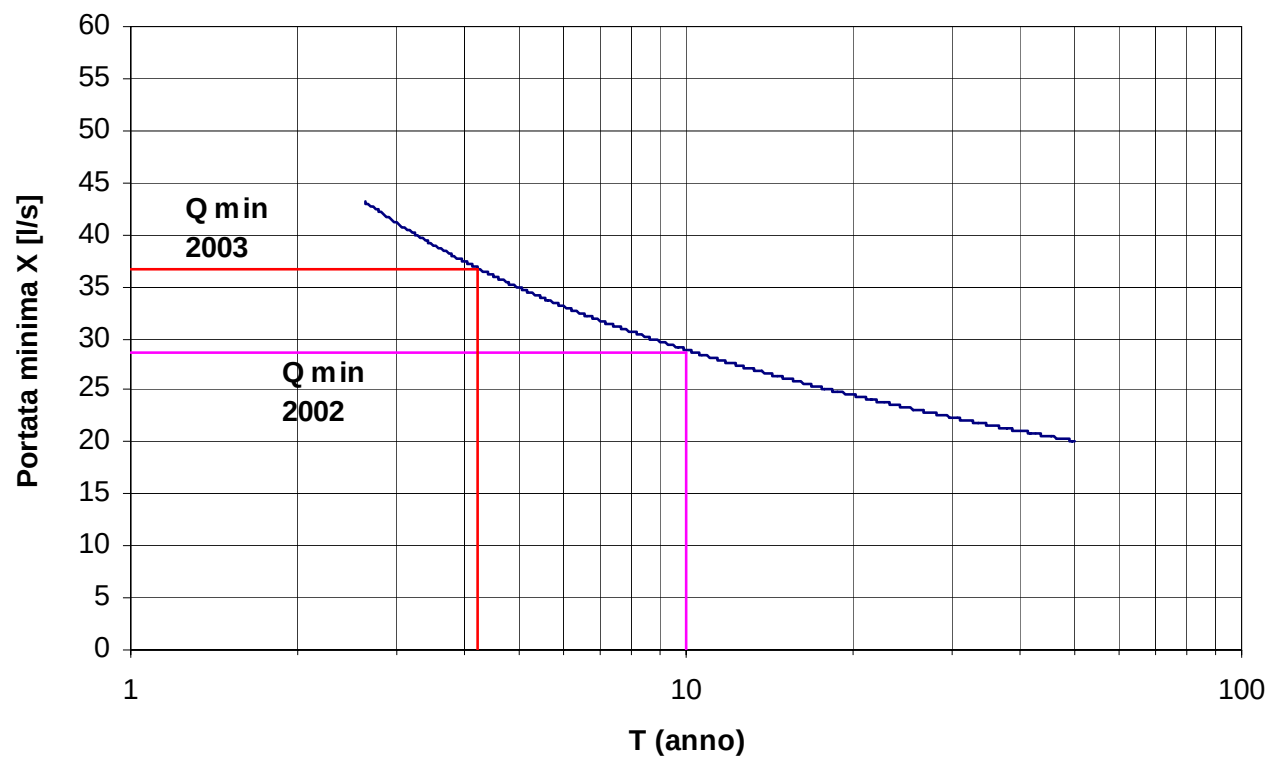
Invaso del Sessera	
$Q_{min\ 2002} \text{ [m}^3/\text{s]} =$	0,211
$F(X) =$	0,097
$K_{T(2002)} =$	0,566

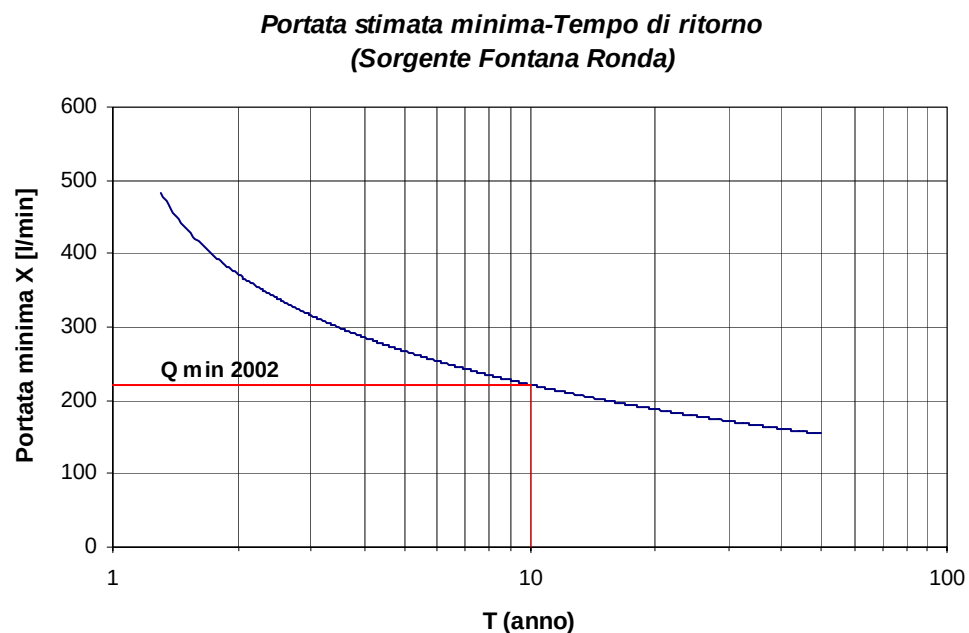
$$Q_T = \bar{Q}_{min} \cdot K_T$$

$$\bar{Q}_{min} = \frac{Q_{min2002}}{K_{T(2002)}}$$

Dati dei volumi derivati
quotidianamente da
Agosto 2001 a Luglio
2003

Portata minima - Tempo di ritorno (Derivazione Strona)





Stima delle portate minime (Sorgenti comunali).

Comune di Trivero			
Sorgenti :		Sorgenti private :	
$Q_{\text{media minimi}} [l/min] =$	200	$SQ_{\text{media minimi}} [l/min] =$	415
$Q_{\text{min 2002}} [l/min] =$	113	$Q_{\text{min 2002}} [l/min] =$	235
$Q_T (T= 20 \text{ anni}) [l/min] =$	97	$Q_T (T= 20 \text{ anni}) [l/min] =$	200
Comune di Coggiola			
Sorgenti:		Derivazione sul Rio Ardaccia:	
$SQ_{\text{media minimi}} [l/min] =$	61	$Q_{\text{media minimi}} [l/min] =$	300
$Q_{\text{min 2002}} [l/min] =$	35	$Q_{\text{min 2002}} [l/min] =$	170
$Q_T (T= 20 \text{ anni}) [l/min] =$	29	$Q_T (T= 20 \text{ anni}) [l/min] =$	145
Comune di Ailoche		Comune di Pray	
Sorgenti:		Sorgenti:	
$SQ_{\text{media minimi}} [l/min] =$	140	$SQ_{\text{media minimi}} [l/min] =$	370
$Q_{\text{min 2002}} [l/min] =$	79	$Q_{\text{min 2002}} [l/min] =$	209
$Q_T (T= 20 \text{ anni}) [l/min] =$	68	$Q_T (T= 20 \text{ anni}) [l/min] =$	179
Comune di Caprile		Comune di Crevacuore	
Sorgenti :		Sorgenti :	
$SQ_{\text{media minimi}} [l/min] =$	80	$SQ_{\text{media minimi}} [l/min] =$	293
$Q_{\text{min 2002}} [l/min] =$	45	$Q_{\text{min 2002}} [l/min] =$	166
$Q_T (T= 20 \text{ anni}) [l/min] =$	39	$Q_T (T= 20 \text{ anni}) [l/min] =$	142