

ANNEX 3.1:

WATER DISTRIBUTION IN VRBAS MUNICIPALITY 2004 - 2006

21 November 2007



Fesibility Study Vrbas
Final Report

Municipal Infrastructure Agency Support Programme
An EU-funded project managed by the European Agency for Reconstruction
9R5927/CvS/R2006_20/R001

Table 1 Water distributed in Vrbas municipality in 2004 (m³)

Settlement	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Average	Total
Vrbas-town	194.793	183.185	196.361	195.053	205.817	208.730	239.169	215.822	199.784	206.737	185.456	176.838	200.645	2.407.745
Kucura	18.713	17.802	20.316	19.172	22.282	23.388	29.199	26.328	22.537	20.734	19.063	18.899	21.536	258.433
Bačko Dobro Polje	24.760	23.892	24.575	24.873	27.583	26.043	34.304	28.930	25.567	23.141	18.306	21.854	25.319	303.828
Zmajevio	23.401	20.344	24.114	25.567	27.820	27.449	39.151	31.947	28.021	24.205	22.918	21.021	26.330	315.958
Savino Selo	14.610	14.475	15.785	16.900	18.128	23.384	30.120	23.590	20.090	19.023	17.398	15.983	19.124	229.486
Ravno Selo	15.871	14.055	14.553	16.018	16.688	17.320	24.977	21.577	17.707	15.146	13.169	14.344	16.785	201.425
Villages-total	97.355	90.568	99.343	102.530	112.501	117.584	157.751	132.372	113.922	102.249	90.854	92.101	109.094	1.309.130
Total	292.148	273.753	295.704	297.583	318.318	326.314	396.920	348.194	313.706	308.986	276.310	268.939	309.740	3.716.875

Table 2 Water distributed in Vrbas municipality in 2004 (l/s)

Settlement	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Average
Vrbas-town	72,7	75,7	73,3	75,3	76,8	80,5	89,3	80,6	77,1	77,2	71,5	66,0	77,4
Kucura	7,0	7,4	7,6	7,4	8,3	9,0	10,9	9,8	8,7	7,7	7,4	7,1	8,3
Bačko Dobro Polje	9,2	9,9	9,2	9,6	10,3	10,0	12,8	10,8	9,9	8,6	7,1	8,2	9,8
Zmajevio	8,7	8,4	9,0	9,9	10,4	10,6	14,6	11,9	10,8	9,0	8,8	7,8	10,2
Savino Selo	5,5	6,0	5,9	6,5	6,8	9,0	11,2	8,8	7,8	7,1	6,7	6,0	7,4
Ravno Selo	5,9	5,8	5,4	6,2	6,2	6,7	9,3	8,1	6,8	5,7	5,1	5,4	6,5
Villages-total	36,3	37,4	37,1	39,6	42,0	45,4	58,9	49,4	44,0	38,2	35,1	34,4	41,5
Total	109,1	113,2	110,4	114,8	118,8	125,9	148,2	130,0	121,0	115,4	106,6	100,4	119,5



Table 3 Water distributed - monthly variations ($K_{monthly}$) in 2004

Settlement	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04	Average
Vrbas-town	0,97	0,91	0,98	0,97	1,03	1,04	1,19	1,08	1,00	1,03	0,92	0,88	1,00
Villages	0,89	0,83	0,91	0,94	1,03	1,08	1,45	1,21	1,04	0,94	0,83	0,84	1,00
Total	0,94	0,88	0,95	0,96	1,03	1,05	1,28	1,12	1,01	1,00	0,89	0,87	1,00

Table 4 Water distributed in Vrbas municipality in 2005 (m^3)

Settlement	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Average	Total
Vrbas-town	178.930	175.202	194.922	187.447	199.263	209.840	204.376	199.459	175.006	170.827	170.336	178.909	187.043	2.244.517
Kucura	19.366	18.233	20.101	21.750	24.159	26.678	27.680	25.069	22.712	20.499	21.753	18.830	22.236	266.830
Bačko Dobro Polje	21.425	20.770	23.896	25.198	28.792	33.045	30.714	29.108	24.993	22.632	20.647	20.748	25.164	301.968
Zmajev	23.119	20.946	24.860	23.656	23.540	23.683	18.495	18.679	22.965	22.190	20.916	20.015	21.922	263.064
Savino Selo	13.065	10.931	12.151	18.453	21.774	23.900	18.317	16.720	16.207	15.200	14.135	14.392	16.270	195.245
Ravno Selo	13.877	14.192	14.572	16.817	20.133	23.169	19.909	17.216	16.859	15.203	14.725	13.537	16.684	200.209
Total villages	90.852	85.072	95.580	105.874	118.398	130.475	115.115	106.792	103.736	95.724	92.176	87.522	102.276	1.227.316
Total	269.782	260.274	290.502	293.321	317.661	340.315	319.491	306.251	278.742	266.551	262.512	266.431	289.319	3.471.833

Table 5 Water distributed in Vrbas municipality in 2005 (l/s)

Settlement	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Average
Vrbas-town	66,8	72,4	72,8	72,3	74,4	81,0	76,3	74,5	67,5	63,8	65,7	66,8	72,2
Kucura	7,2	7,5	7,5	8,4	9,0	10,3	10,3	9,4	8,8	7,7	8,4	7,0	8,6
Bačko Dobro Polje	8,0	8,6	8,9	9,7	10,7	12,7	11,5	10,9	9,6	8,4	8,0	7,7	9,7
Zmajev	8,6	8,7	9,3	9,1	8,8	9,1	6,9	7,0	8,9	8,3	8,1	7,5	8,5
Savino Selo	4,9	4,5	4,5	7,1	8,1	9,2	6,8	6,2	6,3	5,7	5,5	5,4	6,3
Ravno Selo	5,2	5,9	5,4	6,5	7,5	8,9	7,4	6,4	6,5	5,7	5,7	5,1	6,4
Total villages	33,9	31,8	35,7	39,5	44,2	48,7	43,0	39,9	38,7	35,7	34,4	32,7	39,5
Total	100,7	107,6	108,5	113,2	118,6	131,3	119,3	114,3	107,5	99,5	101,3	99,5	111,6

Table 6 Water distributed - monthly variations ($K_{monthly}$) in 2005

Settlement	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Average
Vrbas-town	0,96	0,94	1,04	1,00	1,07	1,12	1,09	1,07	0,94	0,91	0,91	0,96	1,00
Villages	0,89	0,83	0,93	1,04	1,16	1,28	1,13	1,04	1,01	0,94	0,90	0,86	1,00
Total	0,93	0,90	1,00	1,01	1,10	1,18	1,10	1,06	0,96	0,92	0,91	0,92	1,00

Table 7 Water distributed in Vrbas municipality in 2006 (m³)

Settlement	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Average	Total
Vrbas-town	180.381	165.870	174.580	179.731	198.280	210.972	238.073	196.133	192.340	187.394	180.124	175.427	189.942	2.279.305
Kucura	17.624	14.783	16.697	19.693	22.270	22.733	29.946	23.052	20.765	18.589	17.290	17.273	20.060	240.715
Bačko Dobro Polje	22.069	18.493	19.567	21.454	25.807	29.386	34.689	28.668	25.278	23.035	20.827	20.483	24.146	289.756
Zmajev	21.683	19.395	20.491	21.476	24.936	25.857	36.021	26.206	23.765	22.605	18.575	17.990	23.250	279.000
Savino Selo	15.254	14.077	16.219	15.690	16.805	18.497	30.446	19.602	20.461	16.667	15.846	15.762	17.944	215.326
Ravno Selo	15.162	15.908	15.031	15.504	18.920	20.771	27.289	19.282	18.423	15.222	13.795	14.199	17.459	209.506
Total villages	91.792	82.656	88.005	93.817	108.738	117.244	158.391	116.810	108.692	96.118	86.333	85.707	102.859	1.234.303
Total	272.173	248.526	262.585	273.548	307.018	328.216	396.464	312.943	301.032	283.512	266.457	261.134	292.801	3.513.608

Table 8 Water distributed in Vrbas municipality in 2006 (m³)

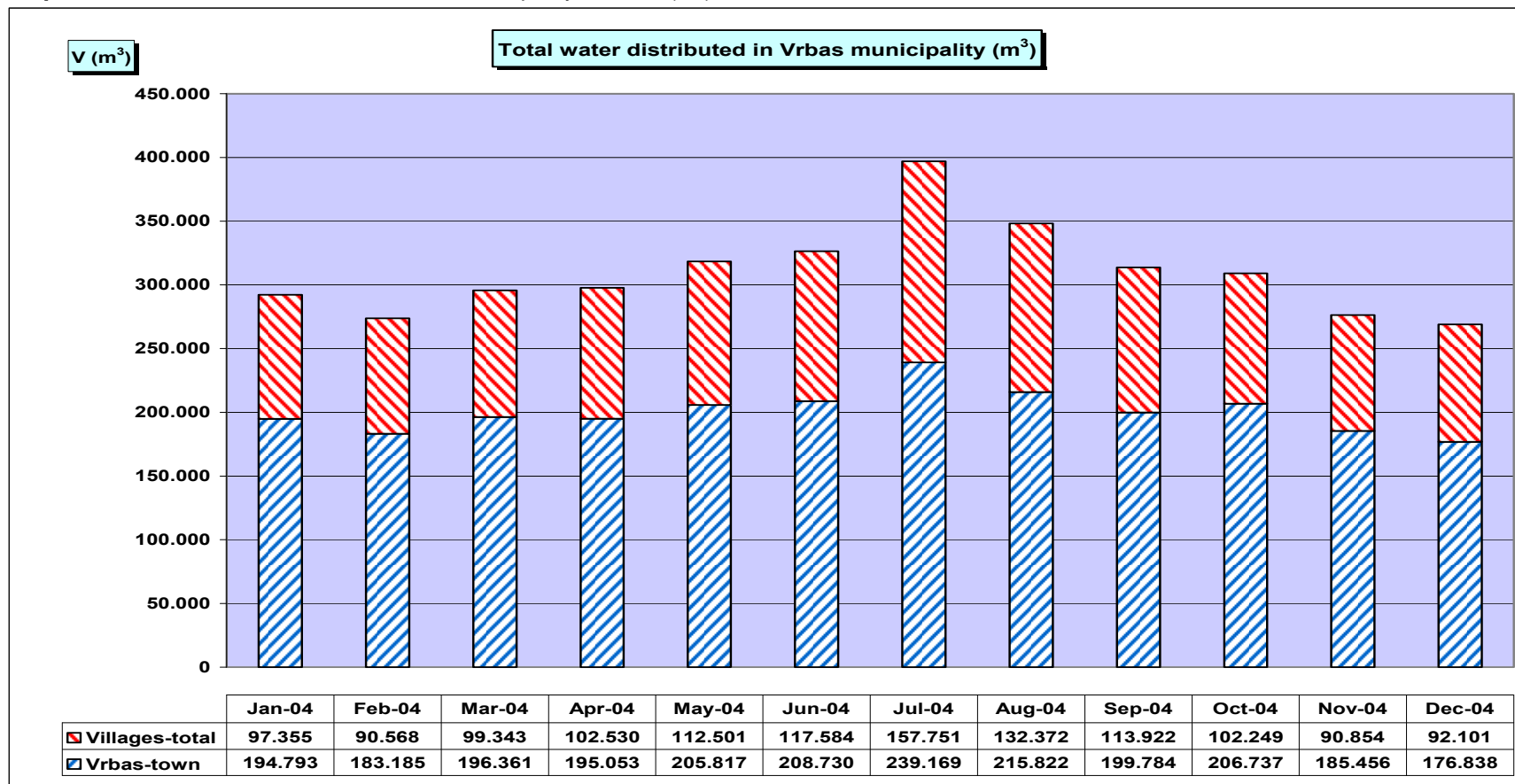
Settlement	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Average
Vrbas-town	67,3	68,6	65,2	69,3	74,0	81,4	88,9	73,2	74,2	70,0	69,5	65,5	73,3
Kucura	6,6	6,1	6,2	7,6	8,3	8,8	11,2	8,6	8,0	6,9	6,7	6,4	7,7
Bačko Dobro Polje	8,2	7,6	7,3	8,3	9,6	11,3	13,0	10,7	9,8	8,6	8,0	7,6	9,3
Zmajev	8,1	8,0	7,7	8,3	9,3	10,0	13,4	9,8	9,2	8,4	7,2	6,7	9,0
Savino Selo	5,7	5,8	6,1	6,1	6,3	7,1	11,4	7,3	7,9	6,2	6,1	5,9	6,9
Ravno Selo	5,7	6,6	5,6	6,0	7,1	8,0	10,2	7,2	7,1	5,7	5,3	5,3	6,7
Villages town	34,3	30,9	32,9	35,0	40,6	43,8	59,1	43,6	40,6	35,9	32,2	32,0	39,7
Total	101,6	102,7	98,0	105,5	114,6	126,6	148,0	116,8	116,1	105,9	102,8	97,5	113,0



Table 9 Water distributed - monthly variations ($K_{monthly}$) in 2006

Settlement	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Average
Vrbas-town	0,95	0,87	0,92	0,95	1,04	1,11	1,25	1,03	1,01	0,99	0,95	0,92	1,00
Villages	0,89	0,80	0,86	0,91	1,06	1,14	1,54	1,14	1,06	0,93	0,84	0,83	1,00
Total	0,93	0,85	0,90	0,93	1,05	1,12	1,35	1,07	1,03	0,97	0,91	0,89	1,00

Graph 1 Water distributed in Vrbas municipality in 2004 (m³)



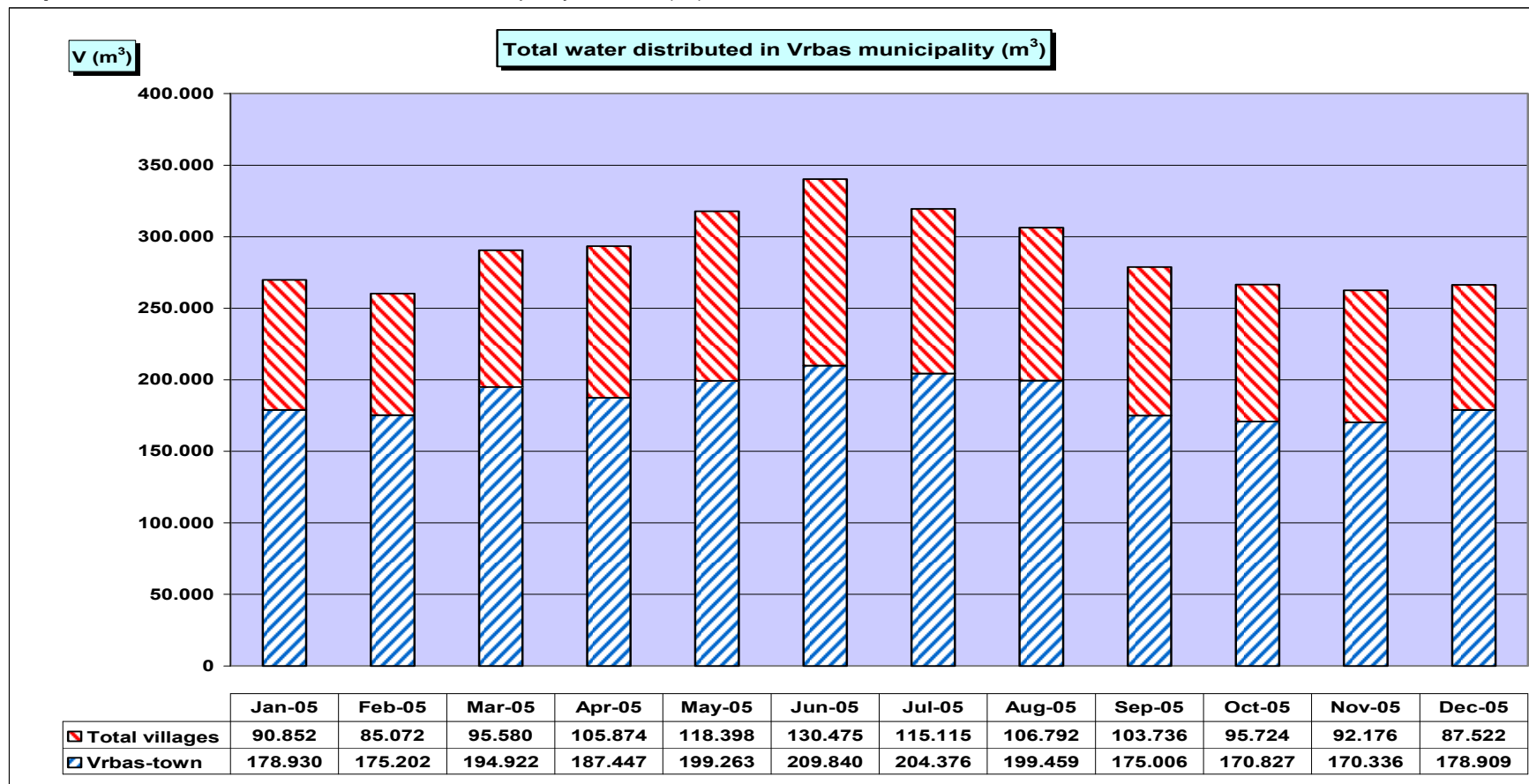
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Graph 2 Water distributed in Vrbas municipality in 2004 (l/s)



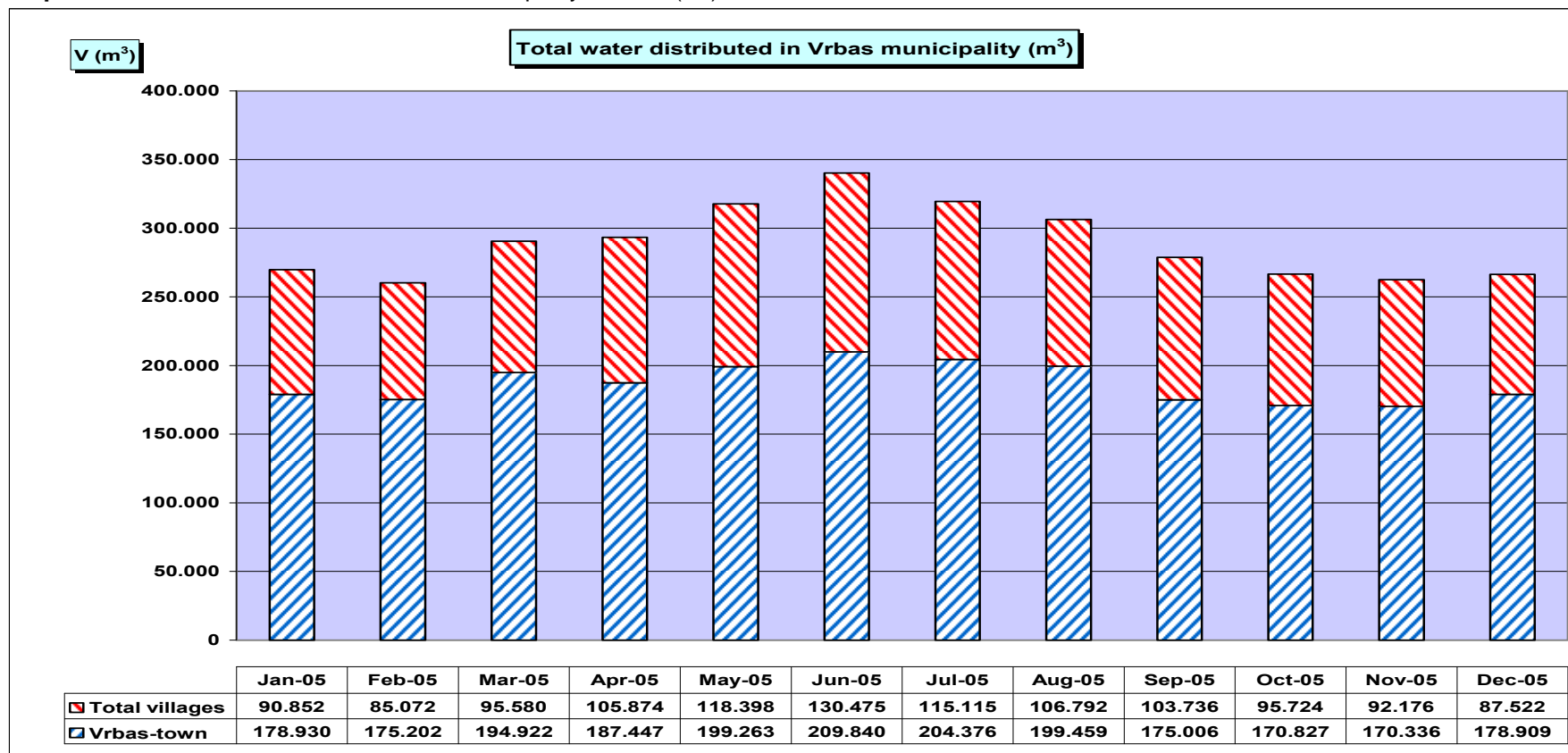
21 November 2007



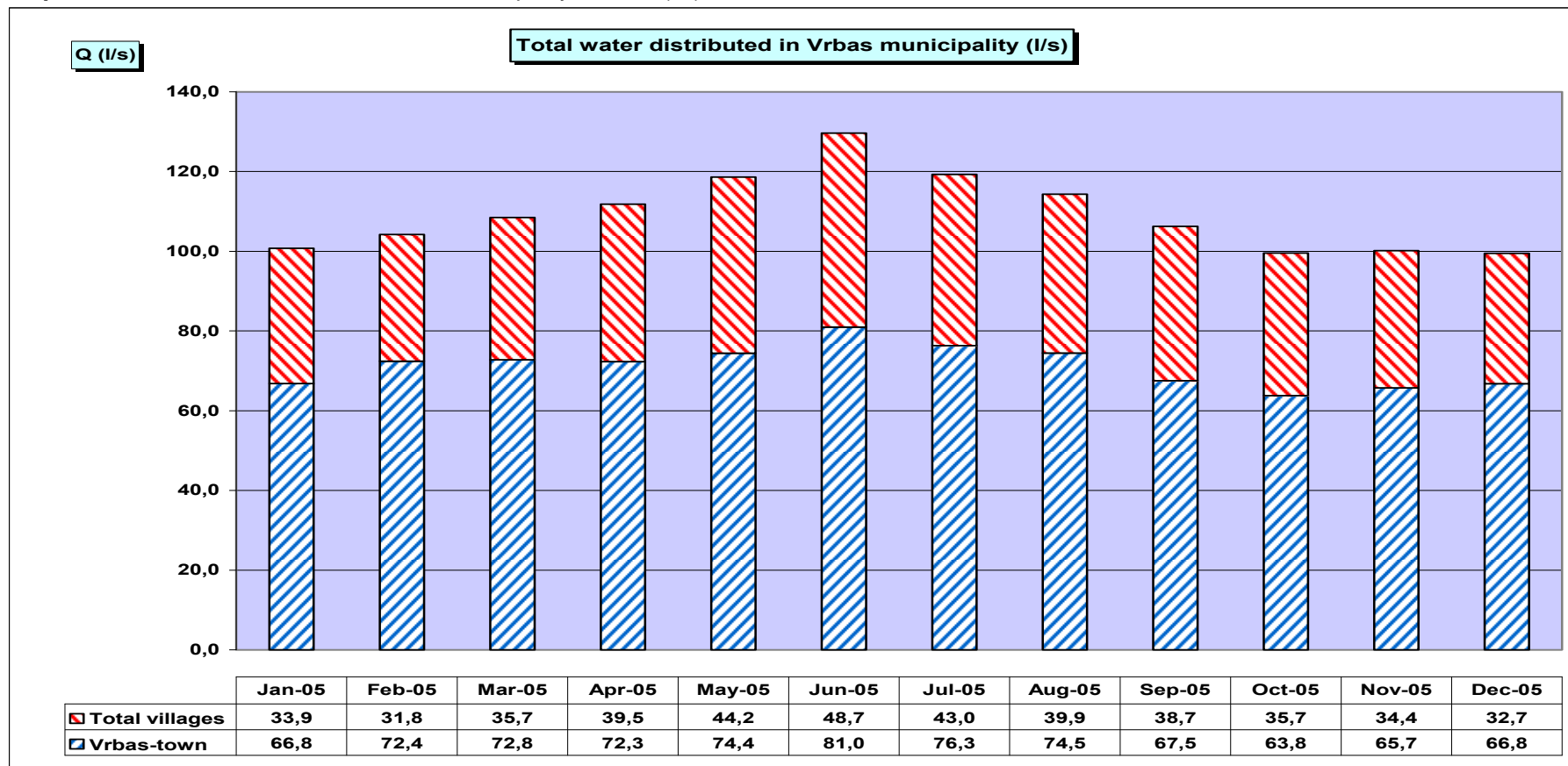
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Final Report

Graph 3 Water distributed in Vrbas municipality in 2005 (m³)



Graph 4 Water distributed in Vrbas municipality in 2005 (l/s)



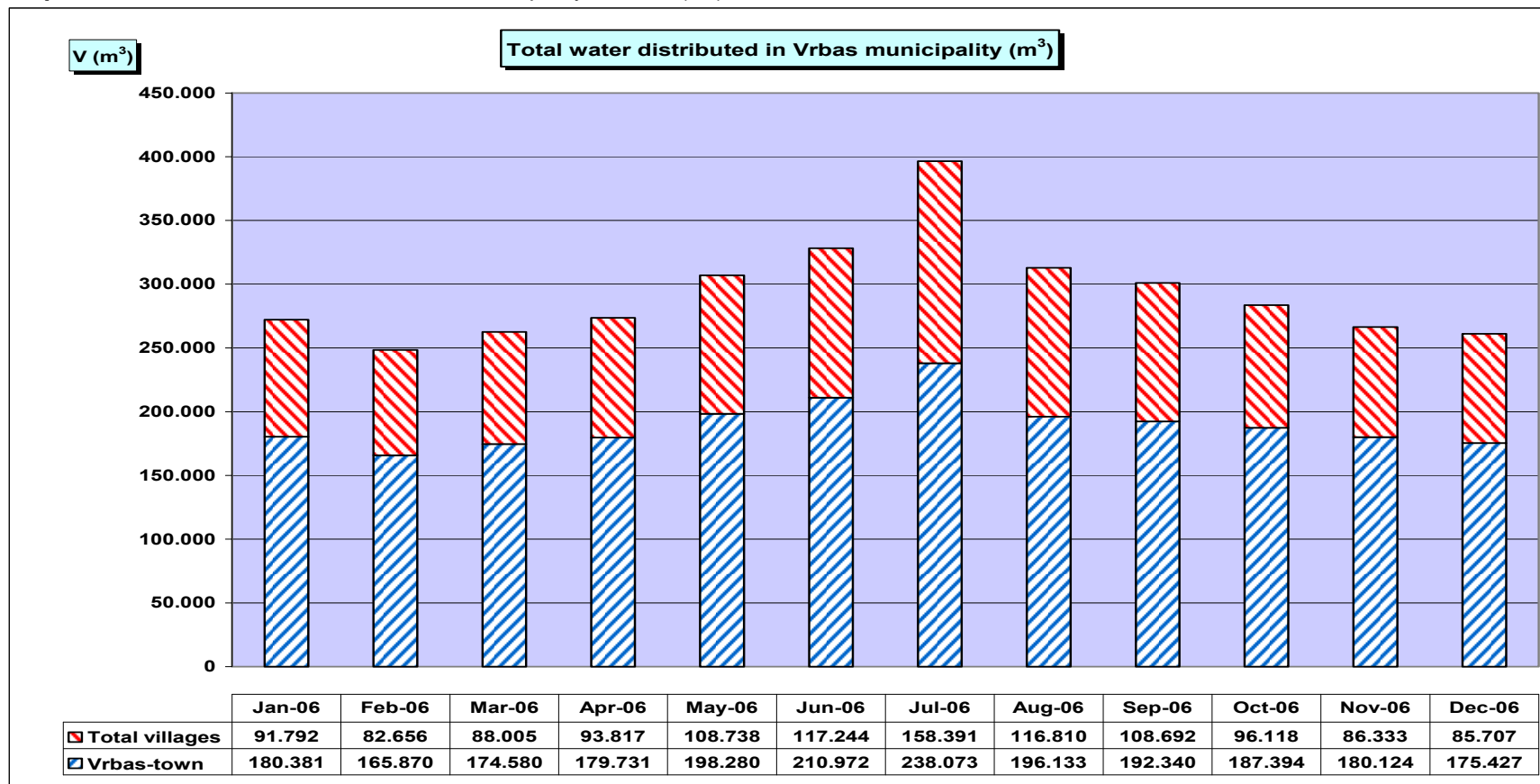
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Feasibility Study Vrbas
Final Report

Graph 5 Water distributed in Vrbas municipality in 2006 (m³)



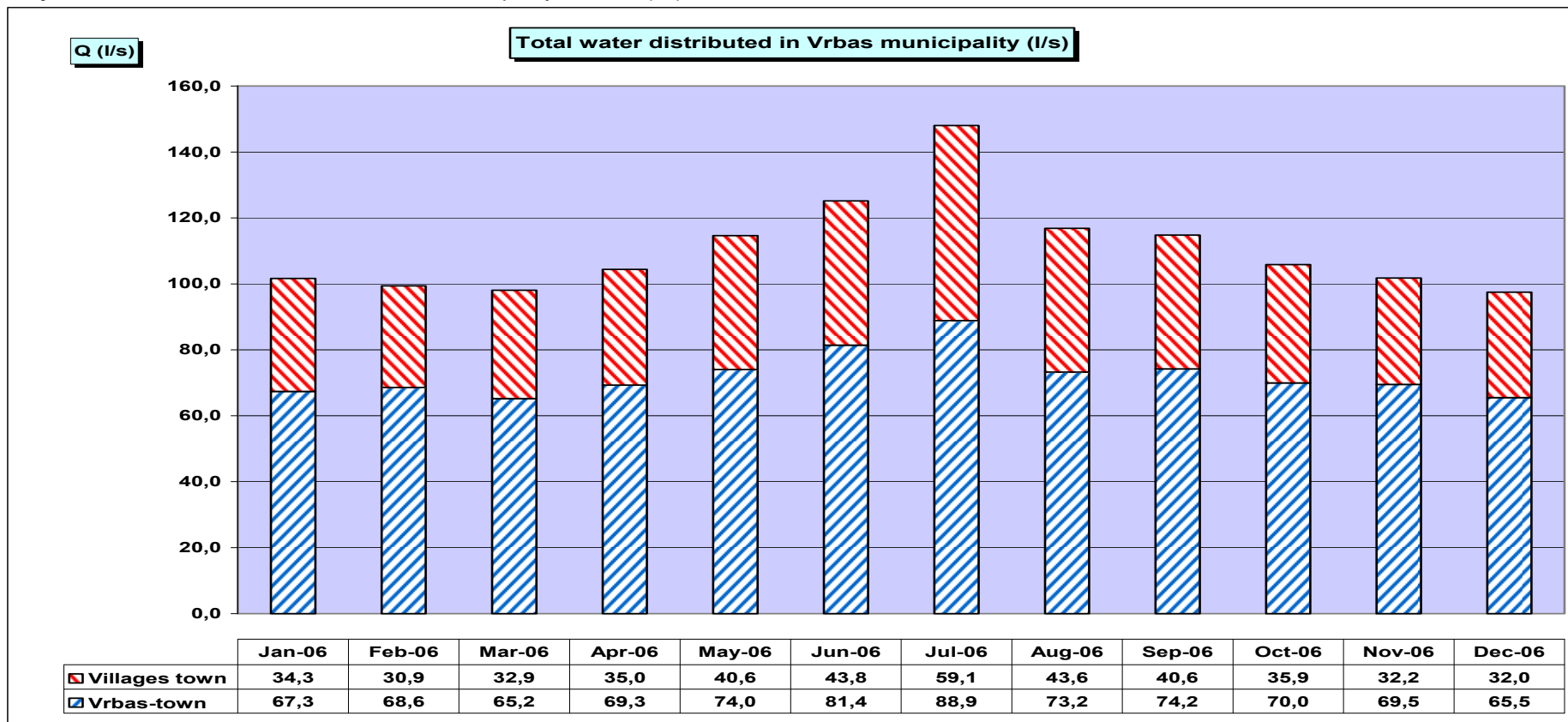
21 November 2007



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Feasibility Study Vrbas
Final Report

Graph 6 Water distributed in Vrbas municipality in 2006 (l/s)



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