

ANNEX 3.4:

INVESTMENT COST ESTIMATES SREMSKA MITROVICA AND ŠABAC SWM – PROPOSED PHASES

29 October 2007



Feasibility Study Sremska Mitrovica
Final Report

Municipal Infrastructure Agency Support Programme
An EU-funded project managed by the European Agency for Reconstruction
9R5927/CvS/R2006_19/R001

INVESTMENT COST ESTIMATES SREMSKA MITROVICA AND SABAC SWM - Proposed phases

Adjustment of prices from price level 1-jul-05 to 1-may-07

Status: 14 September 2007						Exchange rate € 1= RSD				80.77330	
No.	Item/works description	Proposed total (euro)	Phase I (euro)				Phase II (euro)				Optional II phase
			Lot I-1 2008	Lot I-2		Total phase I	Lot II-1 2011	Lot II-2		Total phase II	
				2009	2015			2015	2022		
	ACCES ROAD AND LANDFILL									-	
	Transformer station 20/0,4 kV with all necessary equipment and appurtenant structure	83,850	83,850			83,850				-	
	Power supply line 20 kV	294,714	294,714			294,714				-	
	Power supply line LV	11,864	11,864			11,864				-	
	Administration building	18,891	18,891			18,891				-	
	Guard room	3,848	3,848			3,848				-	
	Building for waste separation line	20,105		20,105		20,105				-	
	Lighting	81,482	81,482			81,482				-	
	Shelter	6,757		6,757		6,757				-	
	Electrical works - subtotal	521,512	494,649	26,863	-	521,512	-	-	-	-	-
	construction	341,122	341,122			341,122				-	
	Mancelov channel dislocation - subtotal	341,122	341,122	-	-	341,122	-	-	-	-	-
	Construction of manipulative - service area,	715,238	40,000	675,238		715,238				-	
	Access road, internal roads and concrete	512,821	300,000	212,821		512,821				-	
	Ancillary works (fence, gate)	22,823	15,000	7,823		22,823				-	
	Construction of the roads and service area - subtotal	1,250,883	355,000	895,883	-	1,250,883	-	-	-	-	-
	Construction of the guard room	12,258	12,258			12,258				-	
	Weighbridge with equipment	41,103		41,103		41,103				-	
	Facility for disinfection	4,392	4,392			4,392				-	
	Construction of the administrative building	107,178	107,178			107,178				-	
	Construction of the shelter	35,580		35,580		35,580				-	
	Construction of the support buildings subtotal	200,510	123,828	76,682	-	200,510	-	-	-	-	-
	Internal water supply system	241,599	241,599			241,599				-	
	Internal sewerage system	220,720	220,720			220,720				-	
	Water supply and sewerage - subtotal	462,320	462,320	-	-	462,320	-	-	-	-	-
	Waste water treatment plant	131,931	131,931			131,931				-	
	Leachate treatment plant	111,000	111,000			111,000				-	
	Laboratory equipment	18,500	18,500			18,500				-	
	Treatment plants for waste water and for leachate - subtotal	261,431	261,431	-	-	261,431	-	-	-	-	-
	Geodetic survey	8,081	8,081	-		8,081				-	
	Preparation works for forming of the cassettes	11,639	5,820	-		5,820		5,820		5,820	
	Earth works for forming of the cassettes	1,086,526	220,000	323,263		543,263		543,263		543,263	
	Purchasing and placing of geotextile, 300 g/m2, bottom	299,110	60,000	89,555		149,555		149,555		149,555	
	Purchasing and placing of geomembrane HDPE, 1.5 mm, bottom	461,303	93,000	137,651		230,651		230,651		230,651	
	Ancillary works	232,499	30,249	86,000		116,249		116,249		116,249	
	Landfill cassettes - subtotal	2,099,158	417,150	636,470	-	1,053,619	-	1,045,538	-	1,045,538	-
	Degazation system	25,531	5,000	7,766		12,766		12,766		12,766	
	Groundwater drainage system with pump station	472,115	95,000	141,057		236,057		236,057		236,057	
	Leachate drainage system	827,520	170,000	243,760		413,760		413,760		413,760	
	Degazation and drainage systems - subtotal	1,325,166	270,000	392,583	-	662,583	-	662,583	-	662,583	-
	Purchasing and placing of geotextile, 300 g/m2, top cover	-	-	-		-		-		-	
	Purchasing and placing of geomembrane HDPE, 1.5 mm, top cover	-	-	-		-		-		-	
	Waste reshaping, compaction	-	-	-		-		-		-	
	Support layer, 0.25 m thick	150,000	-	75,000		75,000		75,000		75,000	
	Polymer bentonite enhanced sand, 0.07 m thick	800,000	-	400,000		400,000		400,000		400,000	
	Drainage layer, 0.5 m thick	600,000	-	300,000		300,000		300,000		300,000	
	Top soil layer, 0.5 m thick	-	-	-		-		-		-	
	Top capping - subtotal	1,550,000	-	-	775,000	775,000	-	-	775,000	775,000	-
	Recultivation works	200,000	-	-		-		200,000		200,000	
	Recultivation works - subtotal	200,000	-	-	-	-	-	-	200,000	200,000	-
	Transport means on landfill site	469,000	-	469,000		469,000		-		-	

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No.	Item/works description	Proposed total (euro)	Phase I (euro)				Phase II (euro)				Optional II phase
			Lot I-1	Lot I-2		Total phase I	Lot II-1	Lot II-2		Total phase II	
			2008	2009	2015		2011	2015	2022		
	Transport means on landfill site subtotal	469,000	-	469,000	-	469,000	-	-	-	-	-
	ACCES ROAD AND LANDFILL - SUBTOTAL	8,681,102	2,725,499	2,497,481	775,000	5,997,980	-	1,708,121	975,000	2,683,121	-

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			Lot I-1 2008	Lot I-2		Total phase I	Lot II-1 2011	Lot II-2		Total phase II	
				2009	2015			2015	2022		
	WASTE SEPARATION LINE									-	
	Construction of the building for waste	871,181	-	871,181		871,181				-	
	Aeration, heating and cooling of the cabin	10,259	-	10,259		10,259				-	
	Waste separation line repairing of existing	-	-	-		-				-	
	New separation line	1,820,000	-	1,820,000		1,820,000				-	
	Delivery and installation	250,000	-	250,000		250,000				-	
	Internal water supply system	1,690	-	1,690		1,690				-	
	Internal sewerage system	13,174	-	13,174		13,174				-	
	WASTE SEPARATION LINE - SUBTOTAL	2,966,303	-	2,966,303	-	2,966,303	-	-	-	-	-
	SABAC DUMPSITE CLOSURE									-	
	Sabac dumpsite closure costs (excl.	3,420,000				3,420,000				3,420,000	
	Investigations & detailed design	62,500				62,500				62,500	
	SABAC DUMPSITE CLOSURE - SUBTOTAL	3,482,500	-	-	-	3,482,500	-	-	-	3,482,500	-
	LANDFILL GAS TO ELECTRICITY									-	
	Landfill gas collection and transport piping network	210,000		170,000		170,000		40,000		40,000	
	Flare	80,000	-	80,000		80,000				-	
	Gas motor, electricity generator and	395,000								-	395,000
	LANDFILL GAS TO ELECTRICITY - SUBTOTAL	685,000	-	250,000	-	250,000	-	40,000	-	40,000	395,000
	TRANSFER STATION SABAC									-	
	Transfer station with trucks and containers	658,000	-	658,000		658,000				-	
	TRANSFER STATION SABAC - SUBTOTAL	658,000	-	658,000	-	658,000	-	-	-	-	-
	SUBTOTAL INVESTMENT COSTS	16,472,905	2,725,499	6,371,784	775,000	9,872,283	3,482,500	1,748,121	975,000	6,205,621	395,000
	Engineering, supervision, commissioning 5% /2	687,370		318,589	38,750	357,339	174,125	87,406	48,750	310,281	19,750
	Contingencies - 7.5%	1,235,468	204,412	477,884	58,125	740,421	261,188	131,109	73,125	465,422	29,625
	Land acquisition	84,204	84,204			84,204					
	TOTAL INVESTMENT COSTS excluding VAT	18,479,947	3,014,116	7,168,257	871,875	11,054,248	3,917,813	1,966,637	1,096,875	6,981,324	444,375
	VAT /1	345,266	345,266			345,266					
	TOTAL INVESTMENT COSTS including VAT	18,825,214	3,359,383	7,168,257	871,875	11,399,515	3,917,813	1,966,637	1,096,875	6,981,324	444,375
	TOTAL INVESTMENT COSTS excl. Supervision	18,137,843	3,359,383	6,849,668	833,125	11,042,176	3,743,688	1,879,230	1,048,125	6,671,043	424,625
	TOTAL PRIORITY INVESTMENT PLAN			10,527,640							

/1 estimated VAT

/2 supervision phase I, lot 1 carried out by