

ANNEX 3.4:

3DRAFT INVESTMENT COST ESTIMATES TOPLICA DISTRICT REGIONAL SWM (€in 2007 prices)

19 December 2007



Municipal Infrastructure Agency Support Programme
An EU-funded project managed by the European Agency for Reconstruction
9R5927/CvS/R2006_23/R001

Feasibility Study Toplica District
Final Report

DRAFT INVESTMENT COST ESTIMATES TOPLICA DISTRICT REGIONAL SWM
(€ in 2007 prices)

Status: Draft Final Report							Exchange rate € 1 = 80 RSD
		Proposed LOT 1 of phase I 2008	Proposed LOT 2 of phase I 2009	Proposed II phase 2020	Proposed III phase 2028	Proposed IV phase 2035	Total all phases
No.	Item/works description	€	€	€	€	€	€
	ACCESS ROAD AND REGIONAL LANDFILL						
	Transformer station 20/0,4 kV with all necessary equipment and appurtenant structure	21,830	-	-	-	-	21,830
	Connection to main power supply line of 20 kV + telecom /1	87,500	-	-	-	-	87,500
	Power supply network, lighting, earthing	57,216	-	-	-	-	57,216
	Administrative building	11,319	-	-	-	-	11,319
	Building for vehicles washing and disinfection	8,190	-	-	-	-	8,190
	Weighbridge	2,431	-	-	-	-	2,431
	Waste water treatment plant	12,750	-	-	-	-	12,750
	Reservoir	2,406	-	-	-	-	2,406
	Testing and final design elaboration	1,361	-	-	-	-	1,361
	Electrical works - subtotal	205,002	-	-	-	-	205,002
	Access road of app. 3 km from main road M-25 to landfill /1	600,000					600,000
	Preparation works for whole complex	99,288					99,288
	Internal roads and service area	731,529					731,529
	Fence and gate	31,113					31,113
	Construction of the roads and service area - subtotal	1,461,929	-	-	-	-	1,461,929
	Weighbridge with equipment	27,165					27,165
	Reservoir	45,008					45,008
	Administrative building	58,880					58,880
	Building for vehicles washing and disinfection	73,764					73,764
	Construction of the support buildings - subtotal	204,817	-	-	-	-	204,817
	Administrative building - heating installation	3,113					3,113
	Administrative building - heating installation - subtotal	3,113	-	-	-	-	3,113
	Piping network for water supply and reservoir	28,161					28,161
	Internal water supply system for administrative building and building for vehicles washing and disinfection	5,837					5,837
	External and internal water supply - subtotal	33,998	-	-	-	-	33,998
	Stream regulation and surrounding channels	39,122		15,048	31,014		85,184
	Piping for sewerage, waste water and leachate	93,870		3,116	4,566		101,553
	Internal sewerage for administrative building, building for vehicle washing and disinfection and weighbridge	1,778					1,778
	Sewerage, waste water and leachate system-subtotal	134,770	-	18,164	35,580	-	188,515
	Waste water treatment plant	95,810		-	-	-	95,810
	Laboratory equipment		18,696	-	-	-	18,696
	Treatment plants for waste water and for leachate - subtotal	95,810	18,696	-	-	-	114,507
	Earth works	1,223,380	-	740,139	588,709		2,552,228
	Foundation and concrete works	4,636	-				4,636
	Purchasing and placing of geomembrane, HDPE, 2 mm	282,275	-	179,620	178,526		640,421
	Purchasing and placing of geotextile, 1,200 g/m2, d=7.5mm	250,011	-	159,092	158,123		567,226
	Landfill cassettes - subtotal	1,760,303	-	1,078,851	925,358	-	3,764,512
	Degassing wells	46,124	-	44,603	29,580		120,307
	Flare, compressor						-
	Piping/collector						-
	Gas motor, electricity generator and appurtenant equipment						-
	Landfill gas collection and utilization - subtotal	46,124	-	44,603	29,580	-	120,307
	Purchasing and placing of geotextile, 800 g/m2, d=4mm		-	102,888	124,392	195,492	422,772
	Purchasing and placing of geomembrane, HDPE, 2 mm,		-	150,045	181,405	285,093	616,543
	Support layer, gravel, 0.3 m thick		-	74,046	94,591	141,127	309,763
	Clay layer, 0.3 mm thick		-	48,415	61,848	92,275	202,538
	Drainage layer, gravel, 0.5 m thick (not 0.4 mm)		-	123,409	159,301	234,309	517,019
	Top capping - subtotal	-	-	498,803	621,537	948,295	2,068,635
	Reclamation works of landfill body			45,320	55,610	86,839	187,769
	Reclamation works of roads and service area	31,996		-	-	-	31,996
	Reclamation works - subtotal	31,996	-	45,320	55,610	86,839	219,765
	Transport means on landfill site		540,000				540,000
	Transport means on landfill site -subtotal	-	540,000	-	-	-	540,000
	Auxiliary protection supply	13,148					13,148
	Auxiliary protection supply - subtotal	13,148	-	-	-	-	13,148
	ACCESS ROAD AND LANDFILL - SUBTOTAL	3,991,009	558,696	1,685,742	1,667,665	1,035,134	8,938,246
	UPGRADE WASTE COLLECTION EQUIPMENT						-

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No.	Item/works description	€	€	€	€	€	€
	Waste collection vehicles and containers		677,700				677,700
	UPGRADE WASTE COLLECTION EQUIPMENT						
	- SUBTOTAL	-	677,700	-	-	-	677,700
	DUMPSITES CLOSURE						-
	All 5 dumpsites covering costs (excl. Supervision, conting.)		3,525,000				3,525,000
	DUMPSITES CLOSURE - SUBTOTAL	-	3,525,000	-	-	-	3,525,000
	TRANSFER STATION KURŠUMLIJA						-
	Transfer station with trucks and containers		654,000				654,000
	TRANSFER STATION KURŠUMLIJA - SUBTOTAL	-	654,000	-	-	-	654,000
	SUBTOTAL INVESTMENT COSTS	3,991,009	5,415,396	1,685,742	1,667,665	1,035,134	13,794,946
	Engineering, supervision, commissioning - 5%	199,550	270,770	84,287	83,383	51,757	689,747
	Investigations closure dumpsites		50,900				50,900
	Detailed design & tendering closure dumpsites		80,000				80,000
	Contingencies - 7.5%	299,326	406,155	126,431	125,075	77,635	1,034,621
	Land acquisition		30,000				30,000
	TOTAL INVESTMENT COSTS excluding VAT	4,489,885	6,253,221	1,896,459	1,876,124	1,164,526	15,680,215
	VAT /2	203,098		-	-	-	203,098
	TOTAL INVESTMENT COSTS including VAT	4,692,983	6,253,221	1,896,459	1,876,124	1,164,526	15,883,313
	Total Phase I, lot 1 + 2		10,946,204				

/1 assuming cost for connection to main power supply line plus telephone line is 7,000,000 RSD or 87,500 €, for access road is

/2 assuming VAT is only paid on municipal financed portion