

The Study on Water Resources Management in The Hashemite Kingdom of Jordan
Final Report/Supporting Report Part-A "Master Plan"

Data Allocations		Hydraulic Analysis (m³/yr)																						
Item	Allocation	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
Water Produced		0	0	0	0	221,038	2,279,966	2,354,094	2,413,902	2,502,521	2,576,729	2,660,959	2,771,255	2,822,553	2,909,850	2,986,148	3,062,446	3,132,790	3,203,125	3,282,579	3,363,924	3,443,324	3,524,368	
Industrial Water	4.08	0.0	0.0	0.8	3.0	0.0	221,038	2,279,966	2,354,094	2,413,902	2,502,521	2,576,729	2,660,959	2,771,255	2,822,553	2,909,850	2,986,148	3,062,446	3,132,790	3,203,125	3,282,579	3,363,924	3,443,324	3,524,368
Physical Losses (%)	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
Physical Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative/Managerial Losses (%)	0.21	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Administrative/Managerial Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quality Delivered	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quantity Water Bills are Collected	1.08	0.0	0.0	0.0	0.0	0.0	2,218,838	2,279,966	2,354,094	2,413,902	2,502,521	2,576,729	2,660,959	2,771,255	2,822,553	2,909,850	2,986,148	3,062,446	3,132,790	3,203,125	3,282,579	3,363,924	3,443,324	3,524,368
Industrial Water	1.08	0.0	0.0	0.0	0.0	0.0	2,218,838	2,279,966	2,354,094	2,413,902	2,502,521	2,576,729	2,660,959	2,771,255	2,822,553	2,909,850	2,986,148	3,062,446	3,132,790	3,203,125	3,282,579	3,363,924	3,443,324	3,524,368
Physical Losses (%)	0.24	0.23	0.22	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
Physical Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative/Managerial Losses (%)	0.21	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Administrative/Managerial Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quality Delivered	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quantity Water Bills are Collected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial Analysis (JD at 2000 Prices)																								
Item	Period	Amount	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Costs																								
Local Components	45%	348,988	0	0	0	308,355	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Foreign Components	55%	415,461	0	0	0	321,416	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Day & Taxes	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Capital Costs		765,338	0	0	0	631,881	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Debt Service Costs		0	0	0	0	631,881	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801		
Op. & M. Costs		0	0	0	0	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813	32,813		
Total Costs		0	0	0	0	631,881	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801	632,801		
Revenues																								
Industrial Usage Qty (m³)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Industrial Tariff (JD/m³)		1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
Total Revenues (JD)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Imports Usage Qty (m³)		0	0	0	0	0	1,357,096	1,354,093	1,360,008	1,361,000	1,367,002	1,364,461	1,353,111	1,336,667	1,480,000	2,471,303	2,546,724	3,030,070	3,785,372	2,706,783	2,787,534	1,025,734	1,025,734	
Imports Tariff (JD/m³)		0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	
Imports Revenue (JD)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Net Cash Flow (JD)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Discounting (JD=1.05)		0.90809	0.88685	0.875131	0.868201	0.862892	0.856947	0.851316	0.846051	0.840810	0.835584	0.830264	0.825063	0.819866	0.814633	0.809398	0.804263	0.799130	0.794079	0.788937	0.783792	0.778653	0.773509	0.768363
Total Qty Delivered (m³)		0	0	0	0	0	1,357,096	1,352,583	1,360,808	1,361,206	1,367,002	1,364,461	1,353,111	1,336,667	1,480,000	2,471,303	2,546,724	3,030,070	3,785,372	2,706,783	2,787,534	1,025,734	1,025,734	
EBIT		30%																						
NPV (JD)		1,034,279	0	0	0	-432,212	134,805	127,158	121,619	116,134	112,230	105,420	100,253	94,945	88,666	81,521	41,858	73,114	6,825	60,851	57,114	53,461		
PV of Total Costs (JD)		433,288	0	0	0	-432,212	20,334	18,522	18,235	15,388	15,918	12,851	13,381	18,495	9,958	3,941	44,189	7,578	6,882	2,256	3,847	5,178	4,291	
PV of Total Qty Delivered (JD)		14,365,168	0	0	0	1,391,018	1,329,540	978,494	928,593	880,298	834,493	787,375	741,348	895,208	651,316	688,665	578,388	525,243	581,926	473,242	441,161	411,083	390,959	364,876
Unit Water Price (JD/m³)		45																						

Kwh Allocated (Unit=10.000m³)		Hydrology Analysis (m³/yr)																																														
Decs	Allocates	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020																										
Water Product		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																							
Industrial Water	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																							
Physical Losses (%)		0.34	0.21	0.22	0.21	0.19	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15																							
Physical Losses		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																						
Administrative/Managerial Losses (%)		0.21	0.19	0.16	0.14	0.12	0.11	0.09	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05																						
Administrative/Managerial Losses		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																					
Quality Delivers		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																					
Quality Water Bills are Collected		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																					
Irrigation Water	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
Physical Losses (%)		0.24	0.21	0.22	0.21	0.21	0.19	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15																					
Physical Losses		0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																			
Administrative/Managerial Losses (%)		0.21	0.19	0.16	0.14	0.12	0.11	0.09	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05																				
Administrative/Managerial Losses		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																			
Quality Delivers		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																		
Quality Water Bills are Collected		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																	
Financial Analysis (JD at 2000 Prices)	Item	Percent	Amount	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020																								
Costs																																																
Local Components	32%	281,823	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																
Foreign Components	28%	188,128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																
Duty & Taxes	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																
Total Capital Costs	381,951	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																
Construction Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																
O & M Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																
Total Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																
Benefits																																																
Industrial Usage Qty (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
Industrial Tuff (JD/m³)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000														
Industrial Revenue (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
Irrigation Usage Qty (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
Irrigation Revenue (JD)	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010													
Total Revenue (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
Net Cash Flow (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
Discounting (JD=10%)	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869	0.00869										
Total Qty Delivered (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
KWHS	102%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KWV (JD)	1,392,761	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PV of Total Costs (JD)	21,378.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PV of Total Qty Delivered (m³)	11,353,271	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Water Price (JD/m³)	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

The Study on Water Resources Management in The Hashemite Kingdom of Jordan
Final Report/Supporting Report Part-A "Master Plan"

Koker Assets (Tariq-35 Flows)																							
Hydrologic Analysis (m³/yr)																							
Data	Allocation	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Water Produced		0	0	0	0	0	0	0	0	0	1,196,786	1,185,212	1,185,036	3,383,039	3,400,453	3,577,867	3,691,652	3,801,397	3,914,682	4,021,827	4,141,692		
Industrial Water	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Physical Losses (%)	0.24	0.23	0.22	0.21	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15		
Physical Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Administrative/Managerial Losses (%)	0.21	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12	0.00	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Administrative/Managerial Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Quality Delivered	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Quality Water Bills are Collected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Impacted Water	1.00	0	0	0	0	0	0	0	0	0	3,082,786	3,108,312	3,205,566	3,381,039	3,400,453	3,577,867	3,691,652	3,801,397	3,914,682	4,021,827	4,141,692		
Physical Losses (%)	0.24	0.23	0.22	0.21	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15		
Physical Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	461,420	472,132	492,844	507,428	522,048	536,608	553,292	570,910	587,424	604,229	621,254		
Administrative/Managerial Losses (%)	0.21	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12	0.00	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Administrative/Managerial Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	154,480	159,411	164,281	174,013	176,893	184,533	180,170	185,808	191,446	197,885	207,354		
Quality Delivered	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,627,778	3,708,378	3,793,782	3,875,493	3,958,381	3,841,187	3,937,033	3,232,887	3,281,733	3,244,588	3,251,843		
Quality Water Bills are Collected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,472,338	2,559,549	2,626,580	2,704,432	2,784,363	2,861,394	2,952,504	3,842,718	3,132,830	3,223,342	3,313,554		
Financial Analysis (JD at 2000 Prices)																							
Data	Percent	Average	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Costs																							
Local Components	72%	283,825	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Foreign Components	28%	106,138	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Duty & Taxes	0%	0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Total Capital Costs	391,951	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Operational Costs	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Oil & M Costs	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Total Costs	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Revenues																							
Industrial Usage Qty (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Industrial Tariff (JD/m³)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
Industrial Revenues (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Impacted Usage Qty (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Impacted Tariff (JD/m³)	0.028	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030		
Impacted Revenues (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Revenues (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Net Cash Flow (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Decomitting (JD=10%)	0.9080	0.92845	0.95101	0.88381	0.83082	0.85447	0.85104	0.84651	0.84310	0.86554	0.85849	0.81143	0.89665	0.83633	0.83901	0.81763	0.826538	0.841107	0.837037	0.822383	0.838738	0.842458	
Total Qty Delivered(m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EBR	18%																						
NPV (JD)	1,392,701	0	0	0	0	0	0	0	0	0	-136,529	133,579	116,084	108,934	101,116	95,618	81,268	84,041	73,891	93,389	64,732		
PV of Total Costs (JD)	213,367	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
PV of Total Qty Delivered (m³)	11,553,771	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Unit Water Price (JD/m³)	19																						

The Study on Water Resources Management in The Hashemite Kingdom of Jordan
Final Report/Supporting Report Part-A "Master Plan"

Amman South Coast (Tariq-10 Basin)		Hydraulic Analysis (m³/yr)																								
Item	Allocation	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Water Produced		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Industrial Water	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Physical Loss (%)	0.24	0.22	0.22	0.21	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15		
Physical Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Administrative/Managerial Losses (%)	0.21	0.19	0.18	0.14	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Administrative/Managerial Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Quality Delivered	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Quality Where Bills are Collected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Interest/Rent	1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Physical Loss (%)	0.24	0.22	0.22	0.21	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15		
Physical Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Administrative/Managerial Losses (%)	0.21	0.19	0.18	0.14	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05		
Administrative/Managerial Losses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Quality Delivered	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Quality Where Bills are Collected	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Financial Analysis (JD at 2000 Policy)																										
Item	Percent	Amount	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Costs																										
Total Components	44%	117,325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52,421	
Foreign Components	3%	147,325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73,813	
Debt & Taxes	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Capital Costs	264,550	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136,836	
Operational Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
O&M Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Revenues																										
Industrial Usage Qty (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Industrial Tariff (JD/m³)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
Industrial Revenues (JD)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
Irrigation Usage Qty (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Irrigation Tariff (JD/m³)	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010		
Irrigation Revenues (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Revenue (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Net Cash Flow (JD)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Discounting (JD@10%)	1,96308	1,83445	1,75151	1,65303	1,59447	1,51538	1,46651	1,42610	1,38554	1,35188	1,32174	1,29169	1,26163	1,23161	1,20158	1,17156	1,14154	1,11152	1,08150	1,05148	1,02146	1,00144	1,00144	-10,000		
Total Qty Where Bills are Collected (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EIRR	19%																									
NPV (JD)	54,352	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-18,765	
PV of Total Costs (JD)	317,387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,079	
PV of Total Qty Delivered (m³)	1,928,624	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62,377	
User Water Price (JD/m³)	115																									
Economic Analysis (JD at 2000 Prices)																										
Item	Percent	Amount	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Costs																										
Total Components	44%	117,325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52,421	
Foreign Components	3%	147,325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73,813	
Debt & Taxes	8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Capital Costs	264,550	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136,836	
Operational Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
O&M Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Revenues																										
Industrial Usage Qty (m³)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Industrial Tariff (JD/m³)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		
Industrial Revenues (JD)	1,00																									

