

### KAC Siphon Upgrading

#### Hydraulic Analysis (M m³/yr)

Item	Allocation	Water Qty	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Water Produced	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Municipal 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
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	0.16	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
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
Quantity 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
Quantity Whose 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
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
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	0.16	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
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
Quantity 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
Quantity Whose 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
Irrigation Water	1.00	20.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
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	4.2	4.2	4.0	3.8	3.6	3.4	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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
Administrative/Managerial Losses			0.0	0.0	0.0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Quantity Delivered			0.0	0.0	0.0	15.8	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
Quantity Whose Bills are Collected			0.0	0.0	0.0	13.8	13.4	14.0	14.4	14.8	15.2	15.6	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0

#### Financial Analysis (M 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
<b>Costs</b>																							
Local 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	0.0	0.0	0.0	0.0	0.0
Foreign 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	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	0.0	0.0	0.0	0.0	0.0
Total Capital Costs	3.5		0.0	2.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contingency Costs			0.0	2.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
O & M Costs			0.0	0.0	0.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Total Costs			0.0	2.0	1.5	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
<b>Revenues</b>																							
Municipal Usage Qty (M 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
Municipal Tariff (JD/m³)			0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294
Municipal Revenue (M 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	0.0	0.0	0.0
Industrial Usage Qty (M 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
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 Revenue (M 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	0.0	0.0	0.0
Irrigation Usage Qty (M m³)			0.0	0.0	0.0	15.8	15.4	14.8	14.4	14.0	13.2	12.8	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
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
Irrigation Revenue (M JD)			0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Revenues (M JD)			0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Net Cash Flow (M JD)			0.0	-2.0	-1.5	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9	-2.9
Discounting (D.R.=6.5%)			0.92697	0.86166	0.81785	0.77732	0.73988	0.69533	0.64351	0.60423	0.56735	0.53273	0.50021	0.46968	0.44102	0.41410	0.38883	0.36510	0.34281	0.32189	0.30224	0.28388	0.26648
Total Qty Whose Bills are Collected (M m³)			0.0	0.0	0.0	13.8	13.4	14.0	14.4	14.8	15.2	15.6	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
<b>FIRR</b>	ND (FIRR)																						
NPV (M JD)	-33.8		0.0	-1.8	-1.2	-2.1	-2.1	-2.9	-1.9	-1.8	-1.7	-1.6	-1.5	-1.4	-1.3	-1.2	-1.1	-1.1	-1.0	-0.9	-0.9	-0.8	-0.8
PV of Total Costs (M JD)	25.4		0.0	1.8	1.2	2.4	2.2	3.1	2.0	1.9	1.7	1.6	1.5	1.4	1.4	1.3	1.2	1.1	1.1	1.0	0.9	0.9	0.8
PV of Total Bills Collected Qty (M m³)	160.8		0.0	0.0	0.0	13.1	12.8	9.6	9.3	8.9	8.6	8.3	8.0	7.5	7.1	6.6	6.2	5.8	5.5	5.2	4.8	4.5	4.3
Unit Water Price (P/m³)	220																						

Economic Analysis (M 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
<b>Costs</b>																							
Local 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	0.0	0.0	0.0	0.0	0.0
Foreign 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	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	0.0	0.0	0.0	0.0	0.0
Total Capital Costs	1.5		0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cumulative Costs			0.0	0.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
O & M Costs			0.0	0.0	0.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Total Costs			0.0	0.0	1.5	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
<b>Benefits</b>																							
Municipal Usage Qty (M m <sup>3</sup> )			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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 Benefits of Municipal Water (JD/m <sup>3</sup> )			0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735
Municipal Benefits (M 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	0.0	0.0	0.0
Industrial Usage Qty (M m <sup>3</sup> )			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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 Benefits of Industrial Water (JD/m <sup>3</sup> )			2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740
Industrial Benefits (M 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	0.0	0.0	0.0
Irrigation Usage Qty (M m <sup>3</sup> )			0.0	0.0	0.0	15.8	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
Unit Benefits of Irrigation Water (JD/m <sup>3</sup> )			0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283
Irrigation Benefits (M JD)			0.0	0.0	0.0	4.5	4.5	4.5	4.6	4.6	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Total Benefits (M JD)			0.0	0.0	0.0	4.5	4.5	4.5	4.6	4.6	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Net Cash Flow (M JD)			0.0	-2.0	-1.5	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Discounting (D/R=10%)			0.0000	0.0204	0.0312	0.0800	0.0809	0.0647	0.0510	0.4495	0.4240	0.3854	0.3504	0.3180	0.2894	0.2633	0.2392	0.2176	0.1979	0.1796	0.1635	0.1494	0.1351
Total Qty Delivered (M m <sup>3</sup> )			0.0	0.0	0.0	15.8	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
<b>IRR</b>																							
NPV (M JD)	8.5		0.0	-1.7	-1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2
PV of Total Costs (M JD)	34.2		0.0	1.7	1.1	2.1	1.9	1.7	1.6	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.5	0.5	0.4	0.4
PV of Total Qty Delivered (M m <sup>3</sup> )	115.8		0.0	0.0	0.0	10.0	9.0	9.0	8.3	7.7	7.0	6.5	6.0	5.4	4.9	4.5	4.1	3.7	3.4	3.1	2.8	2.5	2.3
Unit Water Price (M/m <sup>3</sup> )	289																						

# Rehabilitation of Southern Cokers Irrigation Stage I

## Hydraulic Analysis (M m³/yr)

Item	Allocation	Water Qty	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Water Produced	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Saved	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Municipal 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
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
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
Administrative/Managerial Losses (%)			0.21	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12	0.11	0.10	0.09	0.08
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
Quantity 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
Quantity Whose 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
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
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
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
Administrative/Managerial Losses (%)			0.21	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12	0.11	0.10	0.09	0.08
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
Quantity 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
Quantity Whose 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
Irrigation Water	1.00	45.0	0.0	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
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
Administrative/Managerial Losses (%)			0.21	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12	0.11	0.10	0.09	0.08
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
Quantity 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
Quantity Whose 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

## Financial Analysis (M JD at 2008 Prices)

Item	Percent	Amount	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Costs</b>															
Local Costs	20%	1.6	0.0	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 Costs	20%	7.2	0.0	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
Total Capital Costs		9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contributive 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
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
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
<b>Revenues</b>															
Municipal Usage Qty (M 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
Municipal Tariff (JD/m³)			0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294
Municipal Revenues (M 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
Industrial Usage Qty (M 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
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
Industrial Revenues (M 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
Irrigation Usage Qty (M 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
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
Irrigation Revenues (M 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
Total Revenues (M 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
Net Cash Flow (M 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
Discounting (DR=6.5%)			0.93897	0.88166	0.82385	0.77712	0.72988	0.68333	0.64351	0.60423	0.56755	0.53273	0.50021	0.46948	0.44102
Total Qty Whose Bills are Collected (M 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
<b>EBE</b>															
NEV (M JD)	#DIV/0!		-72.4	-72.4	-72.4	-72.4	-72.4	-72.4	-72.4	-72.4	-72.4	-72.4	-72.4	-72.4	-72.4
PV of Total Costs (M JD)			75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
PV of Total Bills Collected Qty (M m³)			343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9	343.9
Unit Water Price (FJD/m³)			221	221	221	221	221	221	221	221	221	221	221	221	221

Economic Analysis (M JD at 2000 Prices)																							
Item	Percent	Annual	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Costs</b>																							
Local Costs	20%	1.8	0.0	0.0	0.8	1.0	0.0	0.0	0.0	0.0	0.0	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 Costs	80%	7.2	0.0	0.0	3.2	4.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Capital Costs		9.0	0.0	0.0	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contingency Costs			0.0	0.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
O & M Costs			0.0	0.0	0.0	0.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Total Costs			0.0	0.0	4.0	5.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
<b>Benefits</b>																							
Municipal Usage Qty (M m <sup>3</sup> )			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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 Benefits of Municipal Water (JD/m <sup>3</sup> )			0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735
Municipal Benefits (M 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	0.0	0.0	0.0
Industrial Usage Qty (M m <sup>3</sup> )			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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 Benefits of Industrial Water (JD/m <sup>3</sup> )			2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740
Industrial Benefits (M 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	0.0	0.0	0.0
Irrigation Usage Qty (M m <sup>3</sup> )			0.0	0.0	0.0	0.0	15.6	16.0	16.5	16.9	17.4	17.8	18.1	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
Unit Benefits of Irrigation Water (JD/m <sup>3</sup> )			0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285	0.285
Irrigation Benefits (M JD)			0.0	0.0	0.0	0.0	18.1	18.2	18.3	18.4	18.6	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
Total Benefits (M JD)			0.0	0.0	0.0	0.0	18.1	18.2	18.3	18.4	18.6	18.7	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
Net Cash Flow (M JD)			0.0	0.0	-4.0	-5.0	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9
Discounting (DR=10%)			0.90909	0.82645	0.75131	0.68301	0.62092	0.56447	0.51316	0.46651	0.42418	0.38594	0.35149	0.31963	0.28995	0.26333	0.23939	0.21793	0.19794	0.17916	0.16351	0.14964	0.13513
Total Qty Delivered (M m <sup>3</sup> )			0.0	0.0	0.0	0.0	15.6	16.0	16.5	16.9	17.4	17.8	18.1	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
<b>Risk</b>																							
IRR	33%																						
NPV (M JD)	16.9		0.0	0.0	-1.0	-1.4	-1.9	-1.8	-1.7	-1.6	-1.5	-1.5	-1.4	-1.2	-1.1	-1.0	-0.9	-0.8	-0.8	-0.7	-0.6	-0.6	-0.5
PV of Total Costs (M JD)	58.5		0.0	0.0	3.0	3.4	4.3	3.9	3.6	3.2	2.9	2.7	2.4	2.2	2.0	1.8	1.7	1.5	1.4	1.2	1.1	1.0	0.9
PV of Total Qty Delivered (M m <sup>3</sup> )	218.1		0.0	0.0	0.0	0.0	22.1	20.3	18.7	17.2	15.8	14.6	13.4	12.2	11.1	10.1	9.2	8.3	7.6	6.9	6.3	5.7	5.2
Unit Water Price (JD/m <sup>3</sup> )	212																						

# Rehabilitation of Hichan-Kadwin Irrigation Project

## Hydraulic Analysis (M m<sup>3</sup>/yr)

Item	Allocation	Water Qty	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Water Produced		11	0	0	0	0	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Saved		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Municipal Water	8.00	8.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	0.0	8.0	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	0.16	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
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
Quantity 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
Quantity Whose 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
Industrial Water	8.00	8.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	0.0	8.0	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	0.16	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
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
Quantity 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
Quantity Whose 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
Irrigation Water	1.00	11.0	0.0	0.0	0.0	0.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
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	2.3	2.2	2.1	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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
Administrative/Managerial Losses			0.0	0.0	0.0	0.0	1.5	1.1	1.0	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Quantity Delivered			0.0	0.0	0.0	0.0	8.7	8.8	8.9	9.0	9.1	9.2	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
Quantity Whose Bills are Collected			0.0	0.0	0.0	0.0	7.4	7.7	7.9	8.1	8.4	8.6	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8

## Financial Analysis (M 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
<b>Costs</b>																							
Local Costs	28%	1.0	0.0	0.0	0.4	0.6	0.0	0.0	0.0	0.0	0.0	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 Costs	38%	4.0	0.0	0.0	1.6	2.4	0.0	0.0	0.0	0.0	0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Capital Costs		5.0	0.0	0.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operational Costs			0.0	0.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
O & M Costs			0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Total Costs			0.0	0.0	2.0	3.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
<b>Revenues</b>																							
Municipal Usage Qty (M m <sup>3</sup> )			0.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0	0.0	8.0	0.0
Municipal Tariff (JD/m <sup>3</sup> )			0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294
Municipal Revenues (M 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	0.0	0.0	0.0
Industrial Usage Qty (M m <sup>3</sup> )			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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/m <sup>3</sup> )			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 (M 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	0.0	0.0	0.0
Irrigation Usage Qty (M m <sup>3</sup> )			0.0	0.0	0.0	0.0	7.4	7.7	7.9	8.1	8.4	8.6	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Irrigation Tariff (JD/m <sup>3</sup> )			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 (M JD)			0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Revenues (M JD)			0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Net Cash Flow (M JD)			0.0	0.0	-2.0	-3.0	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7	-1.7
Discounting (DR=5%)			0.93197	0.88166	0.82765	0.77732	0.72988	0.68533	0.64351	0.60422	0.56735	0.53273	0.50021	0.46968	0.44102	0.41418	0.38903	0.36510	0.34281	0.32189	0.30224	0.28380	0.26644
Total Qty Whose Bills are Collected (M m <sup>3</sup> )			0.0	0.0	0.0	0.0	7.4	7.7	7.9	8.1	8.4	8.6	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
<b>EBR</b>	#DW01																						
NPV (M JD)	-28.5		0.0	0.0	-1.7	-2.3	-1.2	-1.1	-1.1	-1.0	-0.9	-0.9	-0.8	-0.8	-0.7	-0.7	-0.6	-0.6	-0.6	-0.5	-0.5	-0.5	-0.4
PV of Total Costs (M JD)	21.3		0.0	0.0	1.7	2.3	1.3	1.2	1.1	1.1	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5
PV of Total Bills Collected Qty (M m <sup>3</sup> )	34.1		0.0	0.0	0.0	0.0	5.4	5.3	5.1	4.9	4.7	4.6	4.4	4.1	3.9	3.6	3.4	3.2	3.0	2.8	2.7	2.5	2.3
Unit Water Price (Fikha)	254																						

Economic Analysis (M JD at 2000 Prices)																							
Item	Percent	Amount	2000	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Costs																							
Local Costs	20%	1.0	0.0	0.0	0.4	1.6	0.0	0.1	0.0	0.0	0.0	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 Costs	80%	4.0	0.0	0.0	1.6	2.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Debt & 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Capital Costs		5.0	0.0	0.0	2.0	4.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operative Costs		0.0	0.0	0.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
O & M Costs		0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Total Costs			0.0	0.0	2.0	3.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Benefits																							
Municipal Usage Qty (M m³)			0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	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 Benefits of Municipal Water (JD/m³)			0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735
Municipal Benefits (M JD)			0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	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 Usage Qty (M m³)			0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	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 Benefits of Industrial Water (JD/m³)			2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740
Industrial Benefits (M JD)			0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	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 (M m³)			0.0	0.0	0.0	0.1	0.7	0.1	0.9	0.0	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Unit Benefits of Irrigation Water (JD/m³)			0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283
Irrigation Benefits (M JD)			0.0	0.0	0.0	0.1	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Total Benefits (M JD)			0.0	0.0	0.0	0.1	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Net Cash Flow (M JD)			0.0	0.0	-2.0	-3.8	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Discounting (DR=10%)			0.98819	0.82645	0.75131	0.68301	0.62092	0.56447	0.51316	0.46651	0.42410	0.38554	0.35045	0.31862	0.28966	0.26333	0.23939	0.21767	0.19784	0.17916	0.16251	0.14864	0.13513
Total Qty Delivered (M m³)			0.0	0.0	0.0	0.1	0.7	0.1	0.9	0.0	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
IRR																							
NPV (M JD)	15%		0.0	0.0	-1.5	-2.8	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
PV of Total Costs (M JD)	14.7		0.0	0.0	1.5	2.0	1.1	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2
PV of Total Qty Delivered (M m³)	18.2		0.0	0.0	0.0	0.0	0.4	0.0	0.6	0.0	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Unit Water Price (Flats/m³)	252																						

### Storage on Jordan River and Side Wadis

#### Hydraulic Analysis (M m<sup>3</sup>/yr)

Item	Allocation	Water Qty	2000	2011	2022	2033	2034	2035	2046	2057	2068	2079	2080	2091	2102	2113	2124	2135	2146	2157	2168	2179	2180	2191	2202
Water Produced		30	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30	30	30	30	30
Saved		0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Managed Water	0.00	0.0	0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
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	0.15	0.15
Physical Losses			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
Administrative/Managerial Losses (%)			0.11	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
Administrative/Managerial Losses			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
Quantity Delivered			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
Quantity Whose Bills are Collected			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
Industrial Water	0.00	0.0	0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
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	0.15	0.15
Physical Losses			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
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
Administrative/Managerial Losses			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
Quantity Delivered			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
Quantity Whose Bills are Collected			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.1	0.1
Irrigation Water	1.00	30.0	0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	30.0	30.0	30.0	30.0	30.0	30.0
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	0.15	0.15
Physical Losses			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	30.0	30.0	30.0	30.0	30.0
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
Administrative/Managerial Losses			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	30.0	30.0	30.0	30.0	30.0
Quantity Delivered			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	30.0	30.0	30.0	30.0	30.0
Quantity Whose Bills are Collected			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	30.0	30.0	30.0	30.0	30.0

#### Financial Analysis (M JD at 2000 Prices)

	Item	Percent	Amount	2000	2011	2022	2033	2034	2035	2046	2057	2068	2079	2080	2091	2102	2113	2124	2135	2146	2157	2168	2179	2180	2191	2202	
Costs	Local Costs	20%	14.0	0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	3.5	5.6	4.5	0.0	0.0	1.0	0.0	0.1	
	Foreign Costs	80%	56.0	0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	14.0	22.4	19.6	0.0	0.0	1.0	0.0	0.1	
	Duty & Taxes	0%	0.0	0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.1	0.1	
	Total Capital Costs		70.0	0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	17.5	28.0	24.5	0.0	0.0	1.0	0.0	0.1	
	Operative Costs			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	17.5	45.5	70.1	70.0	70.0	70.0	70.0	70.1	
	O & M Costs			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	4.5	4.5	4.5	4.5	4.5	
	Total Costs			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	17.5	28.0	24.5	0.7	0.7	1.7	0.7	0.7	
Revenues																											
	Municipal Usage Qty (M m³)			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.1	0.1	
	Municipal Tariff (JD/m³)			0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	
	Municipal Revenues (M JD)			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.1	0.1	
	Industrial Usage Qty (M m³)			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.1	0.1	
	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	
	Industrial Revenues (M JD)			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.1	0.1	
	Irrigation Usage Qty (M m³)			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	24.0	24.0	24.0	24.0	24.0	24.1	
	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	
	Irrigation Revenues (M JD)			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	
	Total Revenues (M JD)			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	
	Net Cash Flow (M JD)			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	-17.5	-28.0	-24.5	-0.5	-0.5	-0.5	-0.5	-0.5	
	Discounting (DR=6.5%)			1.91197	0.88166	0.42785	0.77792	0.72968	0.61511	0.64351	0.64423	0.56735	0.53275	0.50321	0.46968	0.44102	0.41410	0.38883	0.36514	0.34281	0.32189	0.30234	0.28380	0.26648	0.25040		
	Total Qty Whose Bills are Collected (M m³)			0.0	1.0	0.0	1.1	0.0	0.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	24.0	24.0	24.0	24.0	24.0	24.1	
FIRR																											
	NPV (M JD)	WCDVRI		-29.1		0.0	1.0	0.0	1.1	0.0	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	-7.2	-10.9	-8.9	-0.2	-0.1	-0.1	-0.1	-0.1	
	FV of Total Costs (M JD)			10.2		1.0	0.0	1.1	0.0	0.1	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	7.2	10.9	8.9	0.2	0.2	0.2	0.2	0.2	
	FV of Total Bills Collected Qty (M m³)			116.1		1.0	0.0	1.1	0.0	0.1	0.0	1.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.2	7.7	7.5	6.1	6.4		
	Unit Water Price (Flm³)			283																							