

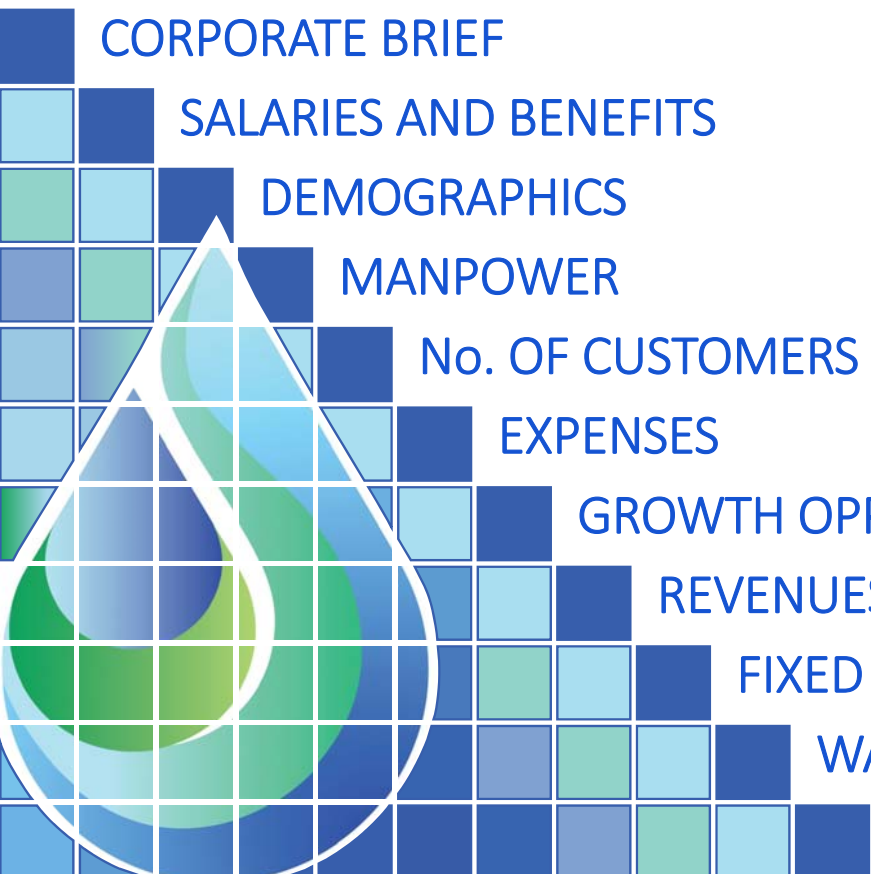


# WATER SECTOR 2021 ... SUSTAIN AND GROW! ENSURE WATER SERVICES SUSTAINABILITY & CONTINUITY

BEIRUT, 2 June 2021

## NEEDS AND FORECAST 2021 - 2024

# OUTLINES



CORPORATE BRIEF
SALARIES AND BENEFITS
DEMOGRAPHICS
MANPOWER
No. OF CUSTOMERS
EXPENSES
GROWTH OPPORTUNITIES
REVENUES AND BANKS
FIXED ASSETS
WATER SYSTEM CAPACITY
SUMMARY

# CORPORATE BRIEF

- ROLE AND MANDATE
- VISION
- MISSION
- OBJECTIVES
- CULTURE AND VALUES



## ROLE AND MANDATE

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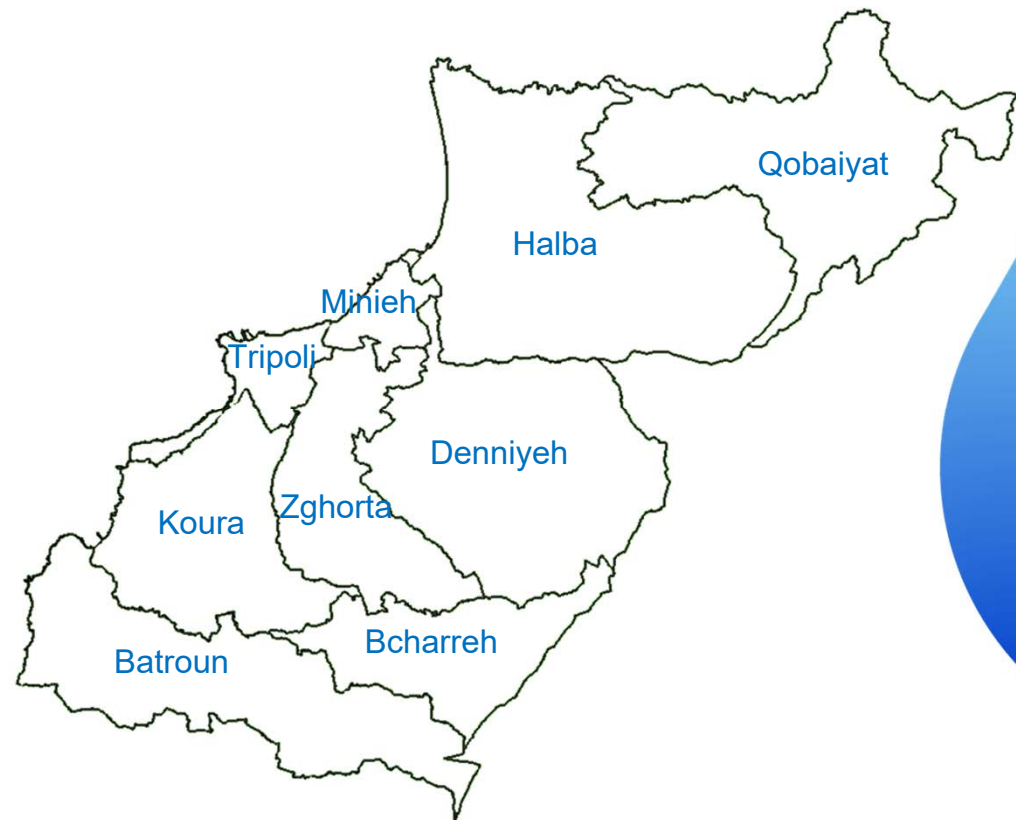
Management of potable water, irrigation and wastewater services

Within 2,000 Km<sup>2</sup> of service area

Where live around 1,500,000 inhabitants

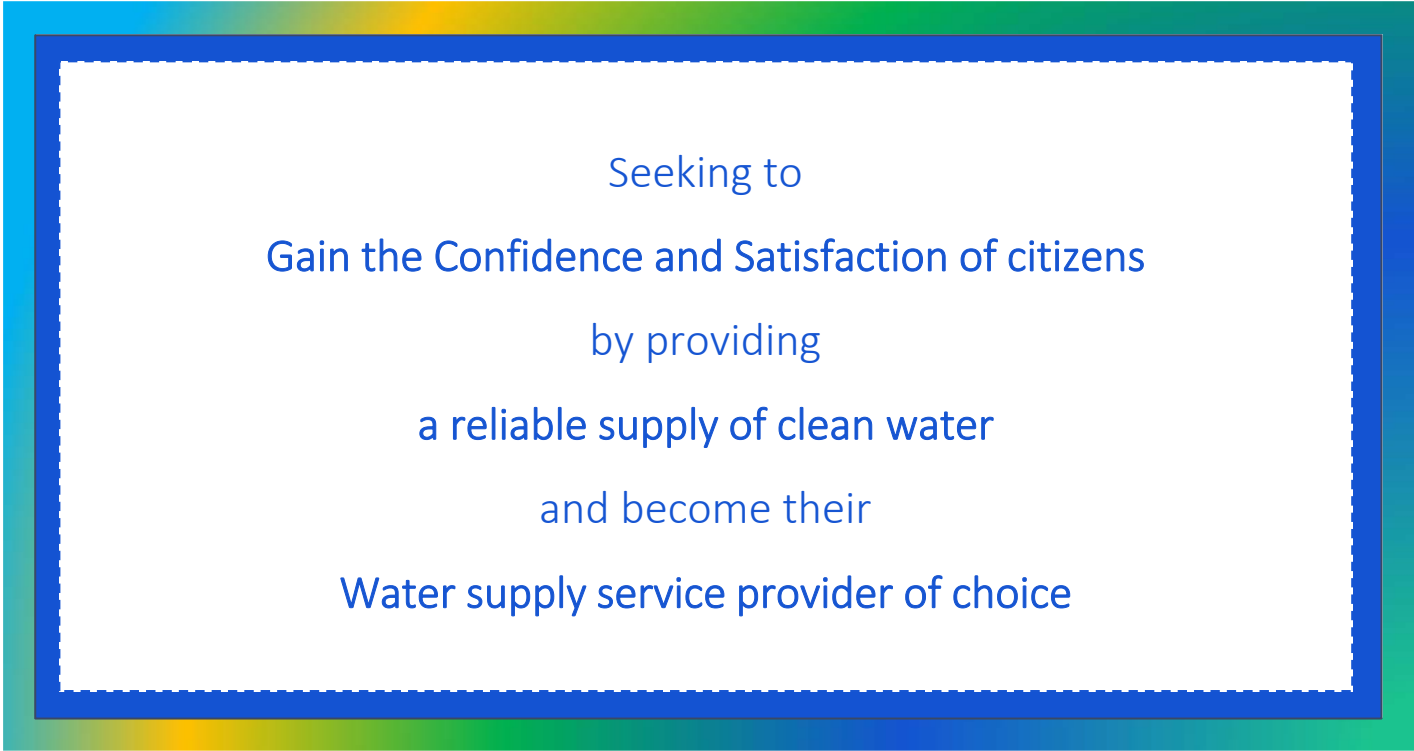
About 50% benefit from public water service

58% of population are connected to wastewater collection network  
(98% in Tripoli and 23% in other areas)




## VISION

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Seeking to  
Gain the Confidence and Satisfaction of citizens  
by providing  
a reliable supply of clean water  
and become their  
Water supply service provider of choice



## MISSION

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- ☑ Protect and properly utilize the water resources of the Establishment, through the conservation of groundwater sources and the reduction of water losses and of non-revenue water in the water supply systems.
- ☑ Increase coverage of water supply and sewerage services in unserved areas of the Establishment, where it is economically practical.
- ☑ Apply the best practices of commercial behavior for water supply and sewerage services through the adoption of sound business principals to achieve full cost recovery from revenues and collections.
- ☑ Act to raise water awareness through the implementation of public education programs; and encourage the exchange of information to allow for transparency in the decision making processes of the Establishment.
- ☑ Motivate the staff of the Establishment by rewarding good performance.



## OBJECTIVES

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1

Adopt water basin principle as a unit for planning and integrated resource management.

2

Consider water related issues as an economic, social and environmental commodity.

3

Establish water policies and legislative frameworks based on the integrated water resource management.

4

Recognition of the central role of water users in water conservation fields.

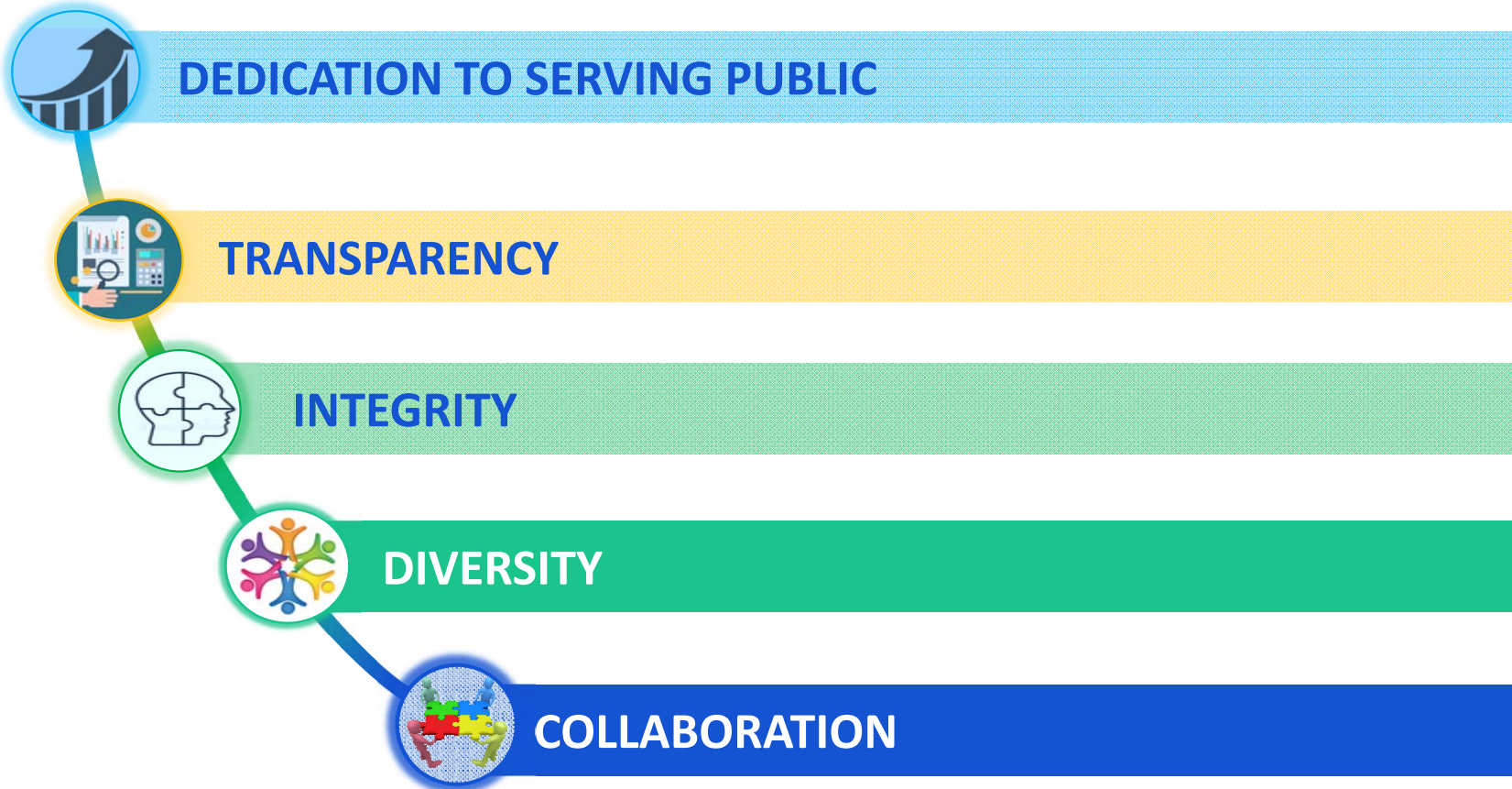
5

Adoption of integrated water resources management as policy and guide.



# CULTURE AND VALUES

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# DEMOGRAPHICS



## DEMOGRAPHICS AND DEMOGRAPHIC DISTRIBUTION

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### DEMOGRAPHICS

- ❑ LEBANESE: 1,500,000
- ❑ PALESTINIAN REFUGEES + SYRIAN DISPLACED (registered): 500,000  
(refer to UNRWA and UNHCR)

### DEMOGRAPHIC DISTRIBUTION

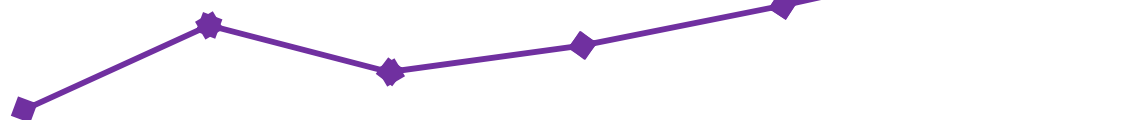
- ❑ LEBANESE HOUSEHOLDS: about 270,000
- ❑ PALESTINIAN REFUGEES HOUSEHOLDS: Unknown (refer to UNRWA)
- ❑ SYRIAN DISPLACED TENTS: Unknown (refer to UNHCR)

No. OF CUSTOMERS



## No. OF CUSTOMERS 2018 – 2024

	ACTUAL			FORECAST			
	2018	2019	2020	2021	2022	2023	2024
With gauge	67,716	67,701	67,804	67,848	67,892	67,936	67,980
With meter	56,266	59,110	60,979	63,484	66,092	68,807	71,634
With no nbr. (ممتاز غير مساق)	811	792	776	759	743	726	710
<b>TOTAL</b>	<b>124,793</b>	<b>127,603</b>	<b>129,559</b>	<b>132,091</b>	<b>134,727</b>	<b>137,470</b>	<b>140,325</b>
<b>COVERAGE</b>	<b>47.4 %</b>	<b>47.6 %</b>	<b>47.5 %</b>	<b>47.6 %</b>	<b>47.7 %</b>	<b>47.8 %</b>	<b>47.9 %</b>



# REVENUES AND BANKS



## REVENUES: 2018 – 2024

	2018	2019	2020	2021	2022	2023	2024
Total Billings in LBP	31,706,208,005	32,522,098,112	32,342,529,527	32,669,373,199	32,999,519,853	33,333,002,868	33,669,855,959
Total Collections in LBP	18,361,753,587	16,608,263,209	16,250,661,214	15,299,766,273	14,404,512,218	13,561,643,265	12,768,094,141
Collection %	57.9 %	51.1 %	50.2 %	46.8 %	43.7 %	40.7 %	37.9 %
Arrear's settlement plan in LBP	4,930,005,125	5,343,047,133	4,905,565,874	4,910,232,651	4,914,903,868	4,919,579,528	4,924,259,637
Penalties in LBP	374,823,508	370,640,113	192,035,957	144,695,134	109,024,800	82,147,939	61,896,778
Grants and government budget contribution in LBP	5,027,990,500	7,539,618,113	21,133,660,334	45,000,000,000	65,000,000,000	85,000,000,000	100,000,000,000
BDL Accounts in LBP	-	-	-	-	-	-	-
BDL Accounts in USD	-	-	-	-	-	-	-
Commercial bank accounts in LBP	-	-	-	-	-	-	-

# WATER SYSTEM CAPACITY



## WATER GROWTH INDICATORS 2018 – 2021 IN (,000 m<sup>3</sup>)

Growth Indicators	2018	2019	2020	2021	Last 4 years Average
Water production, (000 m <sup>3</sup> )	95,049	96,557	94,494	94,400	95,126 (260,620 m <sup>3</sup> /d)
% Change	-	+1.6%	-2.1%	-0.1 %	-0.22 %
Max Production, (000 m <sup>3</sup> )	123,560	125,525	122,840	122,720	123,663
% Change	-	+1.6%	-2.1%	-0.1 %	-0.22 %
Number of Water customers (Based on number of meters <del>plus water tanker customers</del> )	124,793	127,603	129,559	132,091	128,512 (+2,430 cust./yr)
% Change	-	+2.3 %	+1.5 %	+1.95 %	+1.9 %



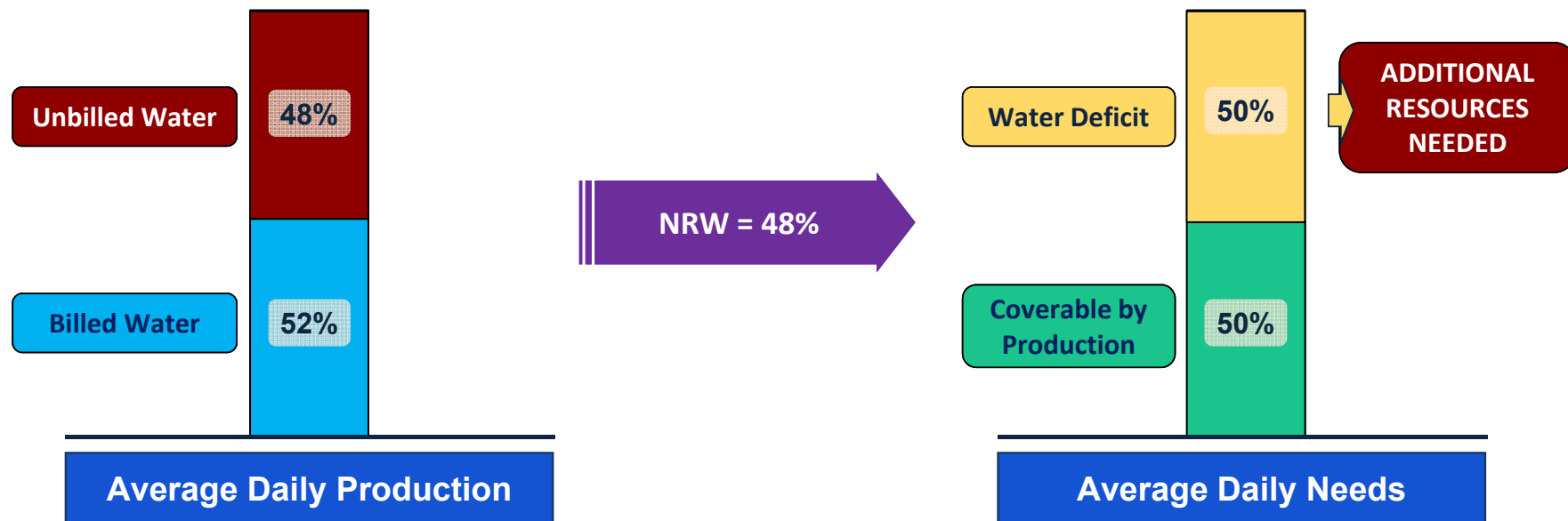
## MONTHLY WATER PRODUCTION 2020 (m<sup>3</sup>)

SERVICE AREA	Rivers	Springs	Wells	Treated Water for Irrigation	Total
QOBAIYAT	-	-	151,517	-	151,517
HALBA	-	-	739,893	-	739,893
DENNIYEH	-	550,440	89,910	-	640,350
MINIEH	-	104,400	342,900	-	447,300
BCHARREH	-	226,320	2,400	-	228,720
ZGHORTA	-	441,733	190,241	-	631,974
KOURA	-	494,973	562,073	-	1,057,045
BATROUN	-	527,642	401,345	-	928,986
TRIPOLI	-	2,026,824	914,144	-	2,940,967
TOTAL m <sup>3</sup> /mth	-	4,372,330	3,394,421	-	7,766,751
TOTAL m <sup>3</sup> /day	-	145,744	113,147	-	258,892

## WATER DISTRIBUTION ACTUAL AND FORECAST 2018 – 2024 IN (m<sup>3</sup>)

SERVICE AREA	2018	2019	2020	2021	2022	2023	2024
QOBAIYAT	1,511,465	1,513,655	1,549,060	1,581,742	1,615,114	1,649,189	1,683,984
HALBA	3,956,965	4,219,218	4,388,578	4,481,168	4,575,711	4,672,250	4,770,825
DENNIYEH	4,149,685	4,272,325	4,358,465	4,450,420	4,544,315	4,640,191	4,738,089
MINIEH	1,795,070	1,821,350	1,849,455	1,888,475	1,928,318	1,969,001	2,010,543
BCHARREH	1,500,150	1,501,610	1,504,895	1,536,645	1,569,065	1,602,170	1,635,972
ZGHORTA	3,885,790	3,970,835	3,988,720	4,072,874	4,158,803	4,246,546	4,336,139
KOURA	6,215,220	6,345,525	6,406,115	6,541,271	6,679,279	6,820,198	6,964,091
BATROUN	4,441,685	4,540,965	4,672,365	4,770,943	4,871,600	4,974,381	5,079,330
TRIPOLI	20,143,529	20,595,946	20,910,941	21,352,120	21,802,607	22,262,598	22,732,294
TOTAL m <sup>3</sup> /year	47,599,559	48,781,429	49,628,594	50,675,657	51,744,812	52,836,523	53,951,268
TOTAL m <sup>3</sup> /day	130,410	133,648	135,969	138,837	141,767	144,758	147,812

## WATER BALANCE 2020



## WATER RESERVOIRS ACTUAL AND FORECAST 2020 – 2024 IN (m<sup>3</sup>)

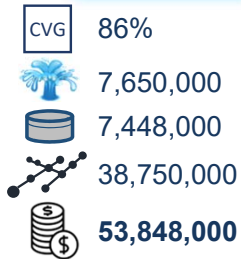
SERVICE AREA	2020	2021	2022	2023	2024
QOBAYAT	13,975	31,540	49,100	66,660	84,220
HALBA	46,955	69,080	91,200	113,320	135,445
DENNIYEH	16,945	23,095	29,240	35,395	41,545
MINIEH	2,335	10,885	19,435	27,985	36,530
BCHARREH	4,900	7,810	10,725	13,630	16,550
ZGHORTA	14,280	19,930	25,580	31,230	36,880
KOURA	13,490	23,080	32,665	42,250	51,840
BATROUN	19,890	21,830	23,775	25,710	27,660
TRIPOLI	59,440	96,940	134,440	171,940	209,440
TOTAL	192,210	304,190	416,160	528,120	640,110



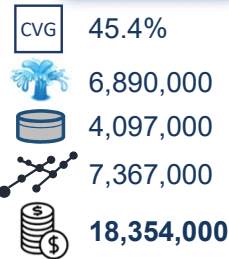
# PROJECTS NEEDS ASSESSMENT

A Total of 400 MUSD

## Koura



## Minieh



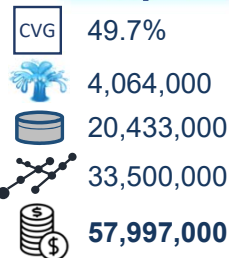
## Denniyeh



## Zghorta



## Tripoli



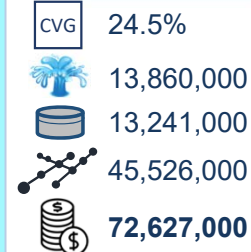
## Batroun



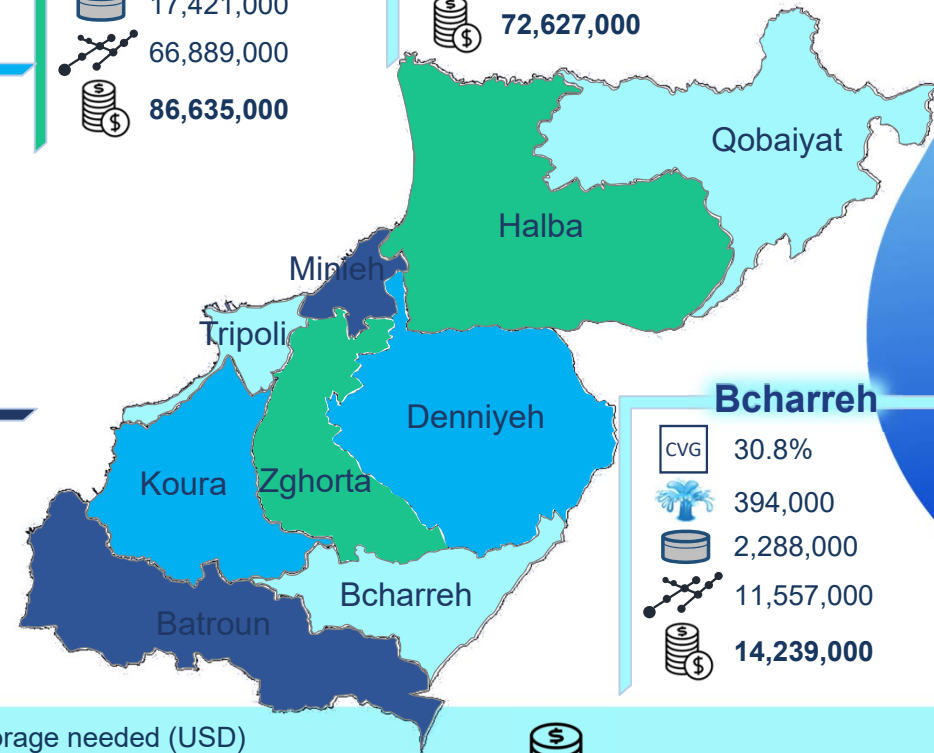
## Halba



## Qobaiyat



## Bcharreh



CVG Served Population/Total Population

Additional Sources needed (USD)

Additional Storage needed (USD)

Additional Infrastructures needed (USD)

Total Estimated Cost (USD)

## WATER COST ACTUAL AND FORECAST 2018 - 2024

	2018	2019	2020	2021	2022	2023	2024
WATER PRODUCTION COST (INCLUDING O&M)	10,413,892,454	9,581,231,145	10,253,113,213	10,438,645,452	10,786,115,916	11,348,361,809	12,196,585,881
WATER DISTRIBUTION COST (INCLUDING O&M)	723,236,598	600,904,521	388,843,742	291,502,952	218,612,327	164,010,490	123,093,527
WATER QUALITY COST (INCLUDING O&M)	236,292,400	80,906,868	Grants	Grants	500,000,000	700,000,000	800,000,000
TOTAL ICT SYSTEM SUPPORT	98,116,027	148,742,719	56,278,769	53,305,876	50,490,025	47,822,919	45,296,702
TOTAL SALARIES AND ALLOWANCES	18,749,693,820	19,255,430,921	18,318,615,928	17,980,087,657	17,729,506,039	17,567,671,517	11,693,178,197
TOTAL ELECTRICITY AND DIESEL	9,940,946,882	9,166,109,671	9,776,019,094	9,955,104,783	10,296,041,589	10,851,665,542	11,693,178,197
TOTAL COST TO IMPROVE WATER SYSTEM PERFORMANCE	5,027,990,500	7,539,618,113	21,133,660,334	60,000,000,000	60,000,000,000	60,000,000,000	60,000,000,000
TOTAL ADJUSTEMENTS TO RECOVER CURRENCY DEVALUATION	0	64,722,209,742	168,102,439,899	296,842,958,189	356,226,893,063	501,714,231,403	663,552,495
GRAND TOTAL	45,190,168,681	111,095,153,700	228,028,970,979	395,561,604,910	455,807,658,959	602,393,763,679	765,906,909,780

Remark : The above requested information are not enough to calculate the unit cost of produced cubic meter of water

# EXPENSES



## CAPEX 2018 – 2024

	2018	2019	2020	2021	2022	2023	2024
WATER FIXED ASSETS	Equipment						
	New main water network						
	New secondary water network	324,838,433	309,444,296	254,650,362	226,070,675	178,173,903	158,177,252
	Rehabilitation/replacement of old water network						
	Wells and pumping station						
	Water reservoirs						
	Water towers						
	House connection – Warehouse material	277,813,327	283,642,401	146,316,233	112,431,553	86,394,064	66,386,474
	Installation of water meters	-	-	-	-	-	-
	Laboratories	-	-	-	-	-	-
	GenSets	-	-	-	-	-	-
	Studies and acquisition expenses	82,240,900	51,964,500	22,274,750	11,811,302	6,263,004	3,320,990
	Administrative and office overhead	48,427,219	123,379,195	44,677,639	65,001,963	94,572,604	137,595,499



## OPEX 2018 – 2024

	2018	2019	2020	2021	2022	2023	2024
O&M	-	-	-	-	-	-	-
EDL/EDZ/EDQ (paid)	135,773,835	138,577,256	124,795,693	119,878,576	115,155,200	110,617,932	106,259,437
EDL/EDZ/EDQ (unpaid)	8,921,393,000	8,366,565,000	8,366,565,000	8,106,403,581	7,854,331,977	7,610,098,632	7,373,459,814
DIESEL	883,780,047	660,967,415	1,284,658,401	1,728,822,626	2,326,554,412	3,130,948,978	4,213,458,946
STAFF TRANSPORT	76,251,459	71,378,648	60,912,077	54,499,894	48,762,718	43,629,492	39,036,637
SPARE PARTS – Vehicle Maintenance	32,610,224	39,611,255	75,443,984	117,666,135	183,517,870	286,223,463	446,408,139
IT HARDWARE	16,907,640	14,374,307	16,260,511	16,109,182	15,959,261	15,810,735	15,663,592
IT SOFTWARE & License	98,116,027	148,742,719	56,278,769	53,305,876	50,490,025	47,822,919	45,296,702
WWTP	0	0	0	0	0	0	0
WATER	918,368,843	732,383,594	719,621,628	640,484,050	570,049,318	507,360,370	451,565,395
IRRIGATION	334,007,829	363,596,486	192,907,156	156,171,806	126,431,976	102,355,508	82,863,927
RENT WELLS	14,800,000	8,500,000	5,700,000	3,548,001	2,208,475	1,374,679	855,678

# SALARIES AND BENEFITS



## SALARIES & ALLOWANCES 2018 - 2024

	2018	2019	2020	2021	2022	2023	2024
PERMANENT STAFF (PS)+(CW)	8,493,730,757	7,769,231,965	7,615,741,765	7,215,708,838	6,836,688,486	6,477,576,979	6,137,328,562
TEMPORARY WORKERS (TW)	3,850,305,690	4,413,913,980	4,320,789,070	4,591,447,848	4,879,060,977	5,184,690,495	5,509,464,969
ALLOWANCES (TRANSPORT, OVERTIME, ETC.): (PS) + (CW)	1,357,156,647	2,070,970,750	1,775,611,500	1,682,343,754	1,593,975,094	1,510,248,185	1,430,919,208
NSSF: (PS) + (CW)	158,871,202	190,732,867	114,677,131	103,312,342	93,073,831	83,849,982	75,540,240
Annual incentives: production grant, bonuses: (PS) + (CW)	745,999,109	614,998,046	599,077,469	538,722,795	484,448,615	435,642,342	391,753,107
Annual incentives: scholarship for education, marriage and childbirth: (PS) + (CW)	925,079,790	942,887,000	883,246,000	863,812,722	844,807,017	826,219,478	808,040,903
Insurance: (PS) + (CW)	1,848,035,625	1,612,295,313	1,546,297,993	1,416,025,162	1,296,727,583	1,187,480,610	1,087,437,500
Transport: (PS) + (CW)	473,000,000	433,984,000	370,350,000	327,923,855	290,357,918	257,095,417	227,643,365
END OF SERVICES: (PS) + (CW)	574,431,000	858,888,000	713,706,000	830,098,249	965,471,922	1,122,922,536	1,306,050,435
Collectors	323,084,000	347,529,000	379,119,000	410,692,092	444,894,597	481,945,492	522,081,991
<b>TOTAL (LBP)</b>	<b>18,749,693,820</b>	<b>19,255,430,921</b>	<b>18,318,615,928</b>	<b>17,980,087,657</b>	<b>17,729,506,039</b>	<b>17,567,671,517</b>	<b>17,496,260,280</b>
<b>TOTAL (USD)</b>	<b>12,499,796</b>	<b>4,813,858</b>	<b>2,289,827</b>	<b>1,383,084</b>	<b>1,181,967</b>	<b>878,384</b>	<b>699,850</b>

# MANPOWER



## MANPOWER 2018 – 2024 | Permanent: On Duty And Retired Staff

	ACTUAL			FORECAST			
	2018	2019	2020	2021	2022	2023	2024
<b>No. Of Positions as Structure</b>	1,256	1,256	1,256	1,256	1,256	1,256	1,256
<b>Permanent Staff</b>	274	265	254	246	236	226	208
Engineers	19	18	17	17	15	13	11
BA Holders	63	63	63	63	63	61	59
BT/TS Holders	38	37	37	36	36	34	31
Technical Skilled Labor (Technical, Admin, Finance)	32	31	31	30	28	26	23
Unskilled Labor (Technical + Non-technical)	113	105	98	90	84	74	64
<b>Resigned Permanent Staff</b>	-	1	1	-	4	8	12
<b>Retired Permanent Staff</b>	9	10	7	10	6	10	8
<b>Total Vacant Positions</b>	991	1,002	1,010	1,020	1,030	1,048	1,068








## MANPOWER 2018 – 2024 | Contractual Workers: On Duty And Retired Staff

	ACTUAL			FORECAST			
	2018	2019	2020	2021	2022	2023	2024
<b>No. Of Positions as Structure</b>	-	-	-	-	-	-	-
<b>Contractual Workers</b>	1	1	1	1	1	1	1
Engineers	-	-	-	-	-	-	-
BA Holders	-	-	-	-	-	-	-
BT/TS Holders	1	1	1	1	1	1	1
Technical Skilled Labor (Technical, Admin, Finance)	-	-	-	-	-	-	-
Unskilled Labor (Technical + Non-technical)	-	-	-	-	-	-	-
<b>Resigned Contractual Workers</b>	-	-	-	-	-	-	-
<b>Retired Contractual Workers</b>	-	-	-	-	-	-	-
<b>Total Contractual Workers</b>	1	1	1	1	1	1	1

## MANPOWER 2018 – 2024 | Temporary Workers: On Duty And Retired Staff

	ACTUAL			FORECAST			
	2018	2019	2020	2021	2022	2023	2024
<b>No. Of Positions as Structure</b>	-	-	-	-	-	-	-
<b>Temporary Workers</b>	340	360	370	375	380	390	400
Engineers	3	3	3	3	3	3	3
BA Holders	-	-	-	-	-	-	-
BT/TS Holders	-	-	-	-	-	-	-
Technical Skilled Labor (Technical, Admin, Finance)	107	107	107	107	107	107	107
Unskilled Labor (Technical + Non-technical)	230	250	260	265	270	280	290
<b>Resigned Temporary Workers</b>	-	-	-	-	-	-	-
<b>Retired Temporary Workers</b>	-	-	-	-	-	-	-
<b>Total Temporary Workers</b>	340	360	370	375	380	390	400

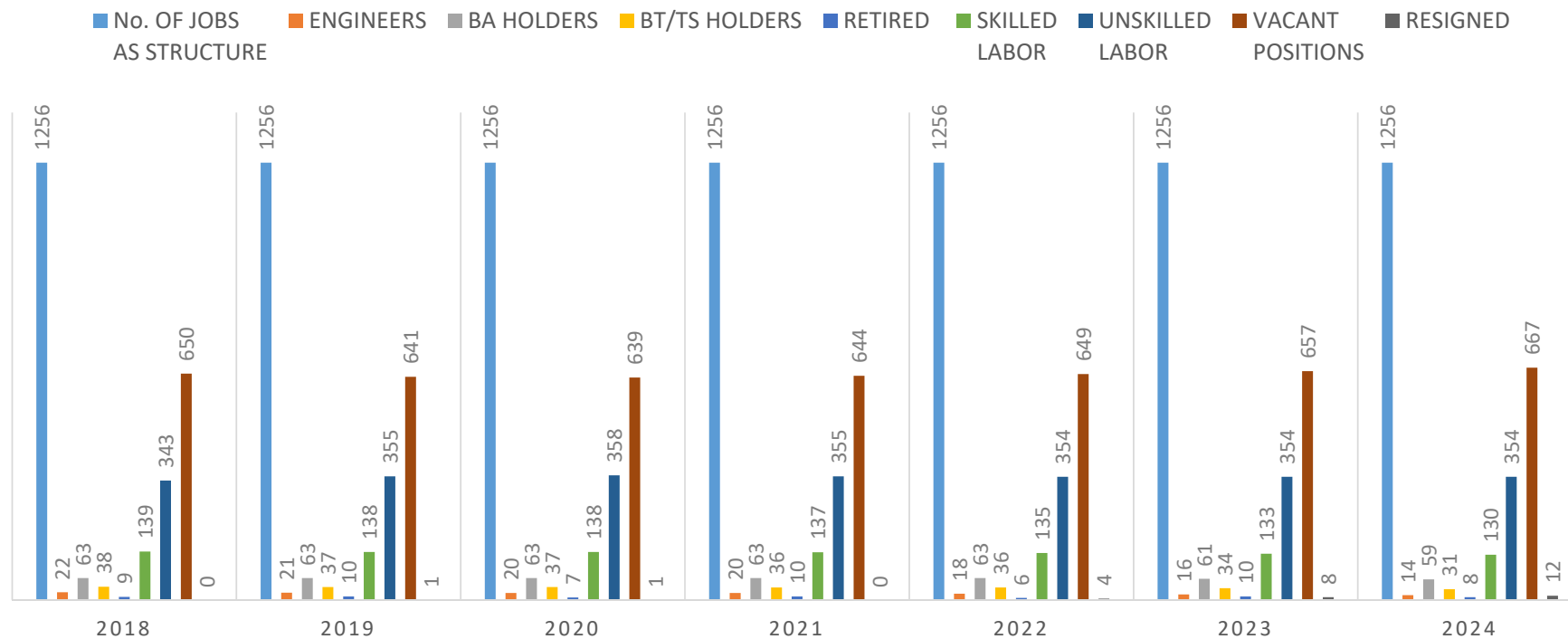
## MANPOWER BALANCE 2018 – 2024 | Permanent/Contractual/Temporary

	ACTUAL			FORECAST				
	2018	2019	2020	2021	2022	2023	2024	
No. Of Positions as Structure	1,256	1,256	1,256	1,256	1,256	1,256	1,256	
Total Permanent Staff	274	265	254	246	236	226	208	
Total Contractual Workers	1	1	1	1	1	1	1	
Total Temporary Workers	340	360	370	375	380	390	400	
Total Resigned (PS, CW, TW)	-	1	1	-	4	8	12	
Total Retired (PS, CW, TW)	9	10	7	10	6	10	8	
Total Vacant	650	641	639	644	649	657	667	
(Percentage)	(51.8 %)	(51 %)	(50.9 %)	(51.3 %)	(51.7 %)	(52.3 %)	(53.1 %)	



## MANPOWER 2018 – 2021 | Vacant Positions Characteristics Permanent, Temporary, And Retired Staff

MANPOWER DYNAMICS: STRUCTURE VS. ACTUAL (2018 – 2020)/FORECAST (2021 – 2024)



# GROWTH OPPORTUNITIES



## OPPORTUNITIES: IMPACT OF CRISIS ON BUSINESS DEVELOPMENT

	2018	2019	2020	2021	2022	2023	2024
<b>Subscribers – Normal increase</b>	124,793	127,603	129,559	132,091	134,727	137,470	140,345
<b>Subscribers – Increase due to crisis</b>	-	-	-	1,360	1,453	1,549	1,650
<b>Subscribers – Total number</b>	124,793	127,603	129,559	133,452	136,180	139,019	141,975
<b>Total Increase %</b>	-	+2.25 %	+1.53 %	+3.0 %	+3.1 %	+3.2 %	+3.3 %
<b>Private wells – licensed</b>	17	22	67	90	100	110	120
<b>Investment needed to improve service (in MLBP)</b>	-	-	-	4,506,830	4,642,946	4,779,123	4,915,311

# FIXED ASSETS



## FIXED ASSETS 2018 – 2024

	2018	2019	2020	2021	2022	2023	2024
FIXED ASSETS VALUES	-	-	-	-	-	-	-
DRINKING WATER ASSETS	324,838,433	309,444,296	254,650,362	226,070,675	200,698,516	178,173,903	158,177,252
WASTEWATER ASSETS	0	0	0	0	0	0	0
WATER FOR IRRIGATION ASSETS	0	0	0	0	0	0	0
ADMINISTRATIVE AND OFFICE ASSETS	48,427,219	123,379,195	44,677,369	65,001,963	94,572,604	137,595,499	200,190,335
STUDIES AND ACQUISITION EXPENSES	82,240,900	51,964,500	22,274,750	11,811,302	6,263,004	3,320,990	1,760,972
DEBTS OR LIABILITIES ASSOCIATED WITH FIXED ASSETS	-	-	-	-	-	-	-
Water Equipment & Consumables (Tools and Accessories)	277,813,327	283,642,401	146,316,233	112,431,553	86,394,064	66,386,474	51,012,346
Communication & Marketing (internal and external relationships)	10,429,430	7,570,578	5,759,232	4,280,909	3,182,052	2,365,259	1,758,126
Shifts (reimbursed fees)	2,599,000	1,602,000	3,616,000	5,195,414	7,464,691	10,725,154	15,409,737
DEPRECIATION OF FIXED ASSETS (%)	-	-	-	-	-	-	-
FIXED ASSETS DETERIORATION (%)	-	-	-	-	-	-	-

# SUMMARY



# SUMMARY

		ACTUAL			FORECAST			
		2018	2019	2020	2021	2022	2023	2024
<b>Customers:</b>								
Nbr.		124,793	127,603	129,559	132,091	134,727	137,470	140,325
CVG.		47.4 %	47.6%	47.5 %	47.6 %	47.7 %	47.8 %	47.9 %
Qty (m <sup>3</sup> /d)		130,410	133,648	135,969	138,837	141,767	144,758	147,812
Billing (\$)		21,137,472	21,681,399	21,561,686	21,779,582	21,999,680	22,222,002	22,446,571
Collection (\$)		12,241,169	11,072,175	10,833,774	10,199,844	9,603,008	9,041,096	8,512,063
Collection (%)		57.9 %	51.1%	50.2 %	46.8 %	43.7 %	40.7 %	37.9 %
<b>Production (m<sup>3</sup>/d)</b>		260,410	264,542	258,892	260,620	262,348	264,076	265,804
<b>Storage (m<sup>3</sup>)</b>		192,210	192,210	192,210	304,190	416,160	528,120	640,110
<b>Personnel:</b>								
PW		274	265	254	246	236	226	208
CW		1	1	1	1	1	1	1
TW		340	360	370	375	380	390	400
Vacancy (%)		51.8 %	51.0%	50.9 %	51.3 %	51.7 %	52.3 %	53.1 %
Salaries (\$)		12,499,796	4,813,858	2,289,827	1,383,084	1,181,967	878,384	699,850

## SUMMARY

	ACTUAL			FORECAST			
	2018	2019	2020	2021	2022	2023	2024
CAPEX (\$)	488,880	512,287	311,946	276,877	258,619	256,985	274,094
OPEX (\$)	7,621,339	7,029,798	7,268,762	7,331,260	7,528,974	7,904,162	8,516,579
Fixed Assets (\$)	497,566	518,402	318,196	283,195	265,717	265,712	285,539
ICT System Support(\$)	65,411	99,162	37,519	35,537	33,660	31,882	30,198
EDL/EDQ Unpaid (\$)	5,947,595	5,577,710	5,577,710	5,404,269	5,236,221	5,073,399	4,915,640
Total Cost To Improve Water System Performance (\$)	3,351,994	5,026,412	14,089,107	40,000,000	40,000,000	40,000,000	40,000,000



