

PALESTINIAN HYDROLOGY GROUP

Water & Environmental Resources Development



مجموعة الهيدرولوجيين الفلسطينيين

لتطوير مصادر المياه والبيئة

**Project funded by:**



EUROPEAN COMMISSION  
EUROPEAN COMMUNITY HUMANITARIAN OFFICE (ECHO)



OXFAM-GB

**In Coordination With:  
Palestinian Water Authority (PWA)**

**Water and Sanitation, Hygiene (WaSH)  
Monitoring Project:  
Impact of the Current Crisis in the West Bank and Gaza Strip  
Survey Report # 18  
November / 2004**

*For more information, please call:*

Eng. Basema Bashir/ PHG

Tel. 02/6565887 or 02/6565890

E-mail: [bashir@phg.org](mailto:bashir@phg.org)

Website: <http://www.phg.org/campaign>

## **Introduction**

This report includes summary of results of the information and update for communities surveyed during November 2004. The section includes five major tables with brief comments on the data presented in these tables.

## **Summary of information and update for the surveyed communities during November 2004.**

The WaSH MP has been updating the data collected during the past two years. The new survey focuses upon rapidly or significantly changed or changing data and collects and analyzes Mekorot Company supply during year 2003 and 2004

43 communities of the WB and GS have been surveyed during the past month. A new questionnaire has been prepared to illustrate significant changes and elements of interest to key stakeholders.

Collected data is presented in the following tables at the end of this section.

## **General comments:**

### **Table 1: Water Supply by Tankers for Communities Surveyed during November / 2004.**

Comparisons of prices of tankers water before and during the current Intifada are presented. Most of the communities suffered from the noticeable increase in the price of water, reflecting the effect of closures and curfews on water transport. On the other hand, in some communities where tanker water is brought from unlicensed wells, per cubic water price decreased (Jalbun and Al Jadida / Jenin governorate, and Ijnisinya / Nablus Governorate). Water quality of these sources is not monitored and therefore, it is possible that these sources could affect population health negatively.

Effect of checkpoints, fixed and mobile, earth mounds and curfew is estimated in this table, 2 indicates a “severe” effect on water transport and the location is completely blocked, 1 indicates an “intermediate” effect i.e. delays between 1 and 6 hours, and 0 indicates no effect on the water transport.

A comparison of supplied quantities now and before the Intifada is presented.

- The price of tanker water is highest in Safa and Al Kum communities / Hebron Governorate (20 NIS / m<sup>3</sup>). In the Gaza Strip, tanker water is usually used on emergency situations and it costs about 35 NIS per cubic meter.
- The effects of fixed and mobile checkpoints, earth mounds and curfews on water transport are presented in the table, with the numbers indicating the extent of closures as above.
- Supplies of tanker water before and after Intifada are also presented in the same table. Communities that do not have defined quantities in the table do not rely on tankers as a source of water supply for the community.

**Table 2: Water supply by Mekorot Company for communities surveyed during November / 2004.**

In Table 2, total water quantities supplied to the communities are collected, and more specifically, quantities supplied by Mekorot Company now and before the Intifada are collected from local councils of these communities. In this table, “water supplies from all sources” include all water supplied from all sources in that community including supply from Mekorot Company. 31 out of the 43 surveyed communities get all or a considerable part of their supplied quantities from Mekorot Company as a main source of domestic water.

**Supplies are reduced** in 29 of the communities that get water from Mekorot Company, and 2 communities are not affected by reduction.

**Table 3: Effect of checkpoints, earth mounds, and curfews on access to services in the Wet Bank and Gaza Strip.**

In this table, summary of effects of fixed and/or mobile checkpoints, earth mounds, and curfews on access to services including access of water tankers, access of maintenance teams, and access to Public Health Centers (PHC). Communities that are affected by more than one of these effects are those which are suffering the most ( Ijnisinia / Nablus Governorate, Qalqiliya and Sanniriya / Qalqiliya Governorate, Khallet Hamad / Bethlehem Governorate, Safa, Al ‘Arrub, Beit Ummar, Sa’ir, Beit Maqdum, Al Kum and Ar Ramadin / Hebron Governorate, and this is also clear in the surveyed communities in the Gaza Strip.

**Table 4: Damages in water infrastructure during the past two weeks.**

This table summarizes damages in water infrastructure in the surveyed communities during the past month. Qalqiliya city was affected directly by the damage of its main water line which affected supply of water to the whole city. Roof tanks remain a major target for Israeli soldiers in many Palestinian Governorates especially in the Gaza Strip. Details are available in the table below.

**Table 5: Water supply for the surveyed communities and its major problems.**

Table 5 summarizes major problems in selected surveyed communities.

**Table 1: Water Supply by Tankers for Communities Surveyed during November / 2004.**

No.	Community ID	Community Name	District	Date	Tanker W. price (NIS / m <sup>3</sup> )		Check Points (CP) effect on tankers					W.Tankers Supply (m3/month)		
					During Intifada	Before Intifada	Fixed CP	Fixed CP name	Mobile CP	Earth mounds effect	Curfew effect	Current	Regular	
1	10190	Jalbun	Jenin	20/11/2004	12.5	15.0							6000	6000
2	10565	Al Jadida	Jenin	18/11/2004	6.0	13.0			1				12000	12000
3	150770	Ijnisiya	Nablus	22/11/2004	8.0	10.0	1	Shave Shomron settlement	1	2	1		300	300
4	201040	Qalqiliya	Qalqiliya	25/11/2004										
5	201260	Sanniriya	Qalqiliya	25/11/2004					1		1			
6	301650	Deir Jarir	Ramallah	23/11/2004	6.0								150	
7	301750	Rammun	Ramallah	24/11/2004	6.0								200	
8	301925	Beit Nuba	Ramallah	23/11/2004										
9	351690	Al 'Auja	Jericho	22/11/2004	9.0	6.0							1000	1000
10	401930	Beit Duqqu	Jerusalem	24/11/2004	6.0	8.0							100	100
11	401965	Beit Ijza	Jerusalem	24/11/2004	8.0	6.0							300	250
12	452190	khallet an Nu'man	Betlehem	06/11/2004	10.0	6.0							50	20
13	452200	Al Khas	Betlehem	23/10/2004	15.0	10.0				1			100	50
14	452215	Wadi al 'Arayis	Betlehem	07/11/2004	15.0	10.0							500	300
15	452245	Juhdum	Betlehem	25/10/2004	10.0	10.0			1				200	100
16	452315	Khallet Hamad	Betlehem	11/11/2004	15.0	10.0			1	1			200	100
17	452350	Rakhme	Betlehem	17/11/2004	10.0	8.0				1			300	200

No.	Community ID	Community Name	District	Date	Tanker W. price (NIS / m <sup>3</sup> )		Check Points (CP) effect on tankers					W.Tankers Supply (m3/month)	
					During Intifada	Before Intifada	Fixed CP	Fixed CP name	Mobile CP	Earth mounds effect	Curfew effect	Current	Regular
18	452370	Ath Thabra	Betlehem	17/11/2004	15.0	10.0						100	50
19	452410	Al 'Iqab	Betlehem	17/11/2004	15.0	10.0						200	100
20	452420	Harmala	Betlehem	08/11/2004	15.0	10.0				2		200	100
21	452440	Al Ma'sara	Betlehem	09/11/2004	15.0	10.0				1		200	100
22	452475	Al Halqum	Betlehem	17/11/2004	15.0	10.0						70	50
23	502355	Al Jab'a	Hebron	31/10/2004	15.0	10.0						100	50
24	502435	Khirbet ad Deir	Hebron	31/10/2004	15.0	10.0				2		100	50
25	502485	Safa	Hebron	26/10/2004	20.0	10.0	1	Beit Ummar Gate		1		100	50
26	502530	Al 'Arrub Camp	Hebron	01/11/2004	15.0	10.0	1	Gush Etzion	1	2		1000	500
27	502540	Beit Ummar	Hebron	02/11/2004	15.0	10.0	1	Beit Ummar Gate		1		1000	500
28	502600	Ras al Jora	Hebron	03/11/2004	15.0	10.0				1		100	50
29	502615	Beit Ula	Hebron	04/11/2004	15.0	10.0						1000	700
30	502620	Sa'ir	Hebron	18/11/2004	10.0	6.0			1	1		1000	500
31	502630	Halhul	Hebron	02/11/2004	15.0	10.0						1500	1000
32	502690	Ad Duwwara	Hebron	21/11/2004	15.0	10.0						500	300
33	502730	Suba	Hebron	22/11/2004	15.0	10.0				1		50	30

No.	Community ID	Community Name	District	Date	Tanker W. price (NIS / m <sup>3</sup> )		Check Points (CP) effect on tankers					W.Tankers Supply (m3/month)	
					During Intifada	Before Intifada	Fixed CP	Fixed CP name	Mobile CP	Earth mounds effect	Curfew effect	Current	Regular
34	502765	Beit Maqdam	Hebron	27/10/2004	15.0	10.0	1	Idhna and Tarqumiya Gates	1	1		200	50
35	502770	Al Kum	Hebron	30/10/2004	20.0	10.0	1	Idhna and Tarqumiya Gates	1	1		300	100
36	502810	Deir Samit	Hebron	23/11/2004	15.0	10.0			1	1		2000	1000
37	503335	Ar Ramadin	Hebron	30/10/2004	10.0	6.0							
38	552745	'Izbat Beit Hanun	North Gaza	25/11/2004	35.0	35.0							
39	603045	Juhor ad Dik	Gaza	25/11/2004	35.0	35.0							
40	703410	Khan Yunis Camp	Khan Yunis	25/11/2004	35.0	35.0							
41	703415	Al Mawasi (Khan Yunis)	Khan Yunis	25/11/2004	35.0	35.0							
42	703420	Khan Yunis	Khan Yunis	25/11/2003	35.0	35.0							
43	703465	Qa' al Qurein	Khan Yunis	25/11/2004	35.0	35.0							

**Table 2: Water supply by Mekorot Company for communities surveyed during November /2004.**

No.	Community ID	Community Name	District	Date	Water supply (m3/month)		
					From all sources	Mekorot Supply (current)	Mekorot Supply (regular)
1	10190	Jalbun	Jenin	20/11/2004	6800		
2	10565	Al Jadida	Jenin	18/11/2004	13000		
3	150770	Ijnisiya	Nablus	22/11/2004	1000		
4	201040	Qalqiliya	Qalqiliya	25/11/2004	160000		
5	201260	Sanniriya	Qalqiliya	25/11/2004	11000	10500	10500
6	301650	Deir Jarir	Ramallah	23/11/2004	7000		
7	301750	Rammun	Ramallah	24/11/2004	6000		
8	301925	Beit Nuba	Ramallah	23/11/2004	500	500	500
9	351690	Al 'Auja	Jericho	22/11/2004	6000	4500	5000
10	401930	Beit Duqqu	Jerusalem	24/11/2004	2600	2400	2500
11	401965	Beit Ijza	Jerusalem	24/11/2004	1500	1200	1500
12	452190	khallet an Nu'man	Betlehem	06/11/2004	200	150	300
13	452200	Al Khas	Betlehem	23/10/2004	400	300	500
14	452215	Wadi al 'Arayis	Betlehem	07/11/2004	2500	2000	3000
15	452245	Juhdum	Betlehem	25/10/2004	2000	1500	2000
16	452315	Khallet Hamad	Betlehem	11/11/2004	600	400	600
17	452350	Rakhme	Betlehem	17/11/2004	1200	900	1200
18	452370	Ath Thabra	Betlehem	17/11/2004	350	250	300
19	452410	Al 'Iqab	Betlehem	17/11/2004	1000	800	1000
20	452420	Harmala	Betlehem	08/11/2004	800	600	900
21	452440	Al Ma'sara	Betlehem	09/11/2004	1000	800	1000
22	452475	Al Halqum	Betlehem	17/11/2004	250	180	250
23	502355	Al Jab'a	Hebron	31/10/2004	1200	1000	1200
24	502435	Khirbet ad Deir	Hebron	31/10/2004	400	300	400
25	502485	Safa	Hebron	26/10/2004	1500	1300	2000
26	502530	Al 'Arrub Camp	Hebron	01/11/2004	9000	7000	10000
27	502540	Beit Ummar	Hebron	02/11/2004	14000	12000	16000
28	502600	Ras al Jora	Hebron	03/11/2004	300	200	350
29	502615	Beit Ula	Hebron	04/11/2004	10000	8000	12000
30	502620	Sa'ir	Hebron	18/11/2004	15000	10000	13000
31	502630	Halhul	Hebron	02/11/2004	25000	20000	25000
32	502690	Ad Duwwara	Hebron	21/11/2004	2000	1500	2000
33	502730	Suba	Hebron	22/11/2004	150	100	150
34	502765	Beit Maqdum	Hebron	27/10/2004	800	600	1000
35	502770	Al Kum	Hebron	30/10/2004	1500	1000	1500
36	502810	Deir Samit	Hebron	23/11/2004	5000	3000	8000
37	503335	Ar Ramadin	Hebron	30/10/2004	3000	2500	4000
38	552745	'Izbat Beit Hanun	North Gaza	25/11/2004	36000		
39	603045	Juhor ad Dik	Gaza	25/11/2004	25000		
40	703410	Khan Yunis Camp	Khan Yunis	25/11/2004	50000		
41	703415	Al Mawasi (Khan Yunis)	Khan Yunis	25/11/2004	15000		
42	703420	Khan Yunis	Khan Yunis	25/11/2003	592315		
43	703465	Qa' al Qurein	Khan Yunis	25/11/2004	25000		

**Table 3: Effect of checkpoints, earth mounds, and curfews on access to services in the surveyed communities (November 2004).**

No.	Community ID	Community Name	District	Date	Fixed check point effect on					Mobile check point effect on			Earth mounds effect on			Curfew effect on			
					Tankers	Ch. Point name	Maintenance teams	Ch. Point name	PHC access	Ch. Point name	Tankers	Maintenance teams	PHC access	Tankers	Maintenance teams	PHC access	Tankers	Maintenance teams	PHC access
1	10565	Al Jadida	Jenin	18/11/2004							1								
2	150770	Ijnisinya	Nablus	22/11/2004	1	Shave Shomron settlement			2	Beit Iba and Shave Shomron settlement	1		2	2		2	1	2	
3	201040	Qalqiliya	Qalqiliya	25/11/2004			2	Qalqiliya	2	Qalqiliya		1	1		1	1		2	2
4	201260	Sanniriya	Qalqiliya	25/11/2004			1	Qalqiliya	1	Qalqiliya	1	1	1				1	1	1
5	351690	Al 'Auja	Jericho	22/11/2004					1	Jericho									
6	452200	Al Khas	Betlehem	23/10/2004										1	1	1			
7	452245	Juhdum	Betlehem	25/10/2004							1	1	1						
8	452315	Khallet Hamad	Betlehem	11/11/2004							1	1	1	1	1	1			
9	452350	Rakhme	Betlehem	17/11/2004										1	1	1			
10	452420	Harmala	Betlehem	08/11/2004										2	1	0			
11	452440	Al Ma'sara	Betlehem	09/11/2004										1	1	1			

No.	Community ID	Community Name	District	Date	Fixed check point effect on					Mobile check point effect on			Earth mounds effect on			Curfew effect on			
					Tankers	Ch. Point name	Maintenance teams	Ch. Point name	PHC access	Ch. Point name	Tankers	Maintenance teams	PHC access	Tankers	Maintenance teams	PHC access	Tankers	Maintenance teams	PHC access
12	502435	Khirbet ad Deir	Hebron	31/10/2004									2	1	2				
13	502485	Safa	Hebron	26/10/2004	1	Beit Ummar Gate			1	Beit Ummar Gate			1	0	1				
14	502530	Al 'Arrub Camp	Hebron	01/11/2004	1	Gush Etzion	0		1	Gush Etzion	1	1	1	2	1	2			
15	502540	Beit Ummar	Hebron	02/11/2004	1	Beit Ummar Gate	1	Beit Ummar Gate	1	Beit Ummar Gate				1	1	1			
16	502600	Ras al Jora	Hebron	03/11/2004									1	1	1				
17	502620	Sa'ir	Hebron	18/11/2004							1	1	1	1	1	1			
18	502730	Suba	Hebron	22/11/2004									1	1	1				
19	502765	Beit Maqdum	Hebron	27/10/2004	1	Idhna ana Tarqumiya Gates			1	Idhna ana Tarqumiya Gates	1	1	1	1	1	1			
20	502770	Al Kum	Hebron	30/10/2004	1	Idhna and Tarqumiya Gates	0		1	Idhna and Tarqumiya Gates	1	1	1	1	1	1			
21	502810	Deir Samit	Hebron	23/11/2004							1	1	1	1	1	1			
22	552745	'Izbat Beit Hanun	North Gaza	25/11/2004			1	Netsanit settlement and Erez	1	Netsanit settlement and Erez	0	1	1	0	1	1	0	1	1

No.	Community ID	Community Name	District	Date	Fixed check point effect on						Mobile check point effect on			Earth mounds effect on			Curfew effect on		
					Tankers	Ch. Point name	Maintenance teams	Ch. Point name	PHC access	Ch. Point name	Tankers	Maintenance teams	PHC access	Tankers	Maintenance teams	PHC access	Tankers	Maintenance teams	PHC access
23	603045	Juhor ad Dik	Gaza	25/11/2004	0		1	Netzareem	2	Netzareem	0	1	1	0	1	1	0	2	2
24	703410	Khan Yunis Camp	Khan Yunis	25/11/2004	0		1	Gush Qatif settlement and Abu Houilly checkpoint	1	Abu Houilly checkpoint	0	2		0	1	1	0	1	1
25	703415	Al Mawasi (Khan Yunis)	Khan Yunis	25/11/2004			2	Gush Qatif settlement	2	Gush Qatif settlement		2	2		2	2		2	2
26	703420	Khan Yunis	Khan Yunis	25/11/2003			1	Gush Qatif settlement and Abu Houilly checkpoint	1	Abu Houilly checkpoint.	0	2	0	0	1	1	0	1	1
27	703465	Qa' al Qurein	Khan Yunis	25/11/2004	0		1	Morag settlement	1	Morag settlement	0	1	1	0	1	1	0	1	1

**Table 4: Damages in water infrastructure during November 2004.**

No.	Community ID	Community Name	District	Date	Wells		Springs		Tankers		Roof Tanks	Water Network Destruction		
					Comp.	Part.	Comp.	Part.	Comp.	Part.		Main Lines	Secondary Lines	% of affected population
1	201040	Qalqiliya	Qalqiliya	25/11/2004								Yes	No	100
2	201260	Sanniriya	Qalqiliya	25/11/2004		5					5	No	No	
3	502540	Beit Ummar	Hebron	02/11/2004							5	No	No	
4	552745	'Izbat Beit Hanun	North Gaza	25/11/2004							5	No	No	
5	603045	Juhor ad Dik	Gaza	25/11/2004							50	No	No	
6	703410	Khan Yunis Camp	Khan Yunis	25/11/2004							50	No	No	
7	703415	Al Mawasi (Khan Yunis)	Khan Yunis	25/11/2004							50	No	No	
8	703420	Khan Yunis	Khan Yunis	25/11/2003							30	No	Yes	10

**Table 5: Water supply for selected surveyed communities and its major problems.**

No.	Community ID	Community Name	District	Date	Supply from all sources (m <sup>3</sup> / month)	General Comments for the community
1	10190	Jalbun	Jenin	20/11/2004	6800	Tanker water is bought from Deir Abu Da'if from groundwater wells which is sometimes unlicensed (price is 8.5 NIS / m3), and from Deir Gazala from licensed wells (price is 12.5 NIS / m3 and it used to be 15 NIS / m3). Wastewater from the nearby settlement Ma'ale Jalbou' is affecting negatively the community. The Separation Wall is causing aggregation of water behind it and is flowing to the community by the gutter constructed by the settlers to get rid of the water behind the WALL.
2	10565	Al Jadida	Jenin	18/11/2004	13000	Availability of water through the unlicensed wells caused reduction in the price of water from tankers. About 1000 m3 are supplied by cisterns.
3	150770	Ijnisinya	Nablus	22/11/2004	1000	Main sources of water in the community are: a local spring in the community ( in summer and winter); cisterns (summer and winter); water tankers in summer; and water brought from Asira Al Shamaliyah in summer and stored in the main reservoir (15 m3). Chlorination unit is not working.
4	201040	Qalqiliya	Qalqiliya	25/11/2004	160000	Source of water is groundwater wells owned by the municipality (2 wells).
5	201260	Sanniriya	Qalqiliya	25/11/2004	11000	Chlorination is provided through Mekorot Company. Cisterns cover small portion of the water supply needs.
6	301650	Deir Jarir	Ramallah	23/11/2004	7000	Water is supplied through the Jerusalem Water Undertaking (JWU) from Ein Samia wells. For the first year during the Intifada, the community was forced to buy water through tankers.
7	301750	Rammun	Ramallah	24/11/2004	6000	Water is supplied through the Jerusalem Water Undertaking (JWU) from Ein Samia Wells. The community was, for the first year during the Intifada, forced to buy water for domestic use through tankers.
8	301925	Beit Nuba	Ramallah	23/11/2004	500	The community will be completely isolated when the construction of the Wall is finished.
9	503335	Ar Ramadin	Hebron	30/10/2004	3000	No water network is available in the community, water is brought through tankers from a Mekorot connection in a settlement with a price of 10 NIS per cubic meter.
10	703465	Qa' al Qurein	Khan Yunis	25/11/2004	25000	Water from agricultural wells is used through the agricultural water network