



**Friends of the Earth**  
*Middle East*



## Draft Agreement on Water Cooperation

between the  
The State of Israel and the Palestinian National Authority

DRAFT AGREEMENT

This document constitutes a detailed agreement for cooperation in addressing common Israeli and Palestinian water challenges and in managing shared natural resources

June 2008

**EcoPeace / Friends of the Earth Middle East**  
Amman, Bethlehem and Tel Aviv



Supported by: the **Geneva Initiative** to complete the Water Accord of the Geneva Israeli Palestinian Peace Agreement Initiative.

This document has been prepared by:

**Authors**

David B. Brooks

Julie Trottier

**Project Leaders**

Gidon Bromberg

Nader el-Khateeb

**Friends of the Earth Middle East (FoEME)** was established in 1994 under the name of EcoPeace. It is a non-governmental, non-profit environmental organization with the primary objective of promoting co-operative efforts to protect the shared environmental heritage of the Middle East. In so doing, FoEME seeks to advance sustainable development and sustainable peace. FoEME has offices in Amman, Bethlehem and Tel Aviv.

**Note of Gratitude:**

FoEME would like to recognize and thank the **Geneva Initiative** and **Forum 2000** for supporting this project.

© All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, mechanical, photocopying, recording, or otherwise, without a prior written permission of EcoPeace / Friends of the Earth Middle East.

## Table of Contents

<b>PART ONE: INTRODUCTORY NOTES.....</b>	<b>1</b>
Written Outputs .....	1
Nature of the Work .....	2
Premises .....	3
Coverage .....	4
Existing Legal Context.....	4
New Considerations.....	5
Authorship.....	7
Definitions and Abbreviations .....	7
<b>PART TWO: ARTICLE 12 OF ORIGINAL GENEVA ACCORD: WATER .....</b>	<b>10</b>
<b>PART THREE: ANNEX (EXPLANATORY NOTES TO ARTICLE).....</b>	<b>21</b>
CONTENTS.....	21
WATER RIGHTS AND RESPONSIBILITIES FOR SHARED WATER .....	21
MANAGEMENT OF SHARED SURFACE WATER.....	22
MANAGEMENT OF SHARED GROUND WATER.....	23
MANAGEMENT OF WASTE WATER FLOWING INTO SHARED WATER .....	24
BILATERAL MANAGEMENT FOR SHARED WATER .....	25
DEMAND MANAGEMENT OF SHARED WATER .....	31
SHARED AGRICULTURAL WATER .....	32
CONTINGENCY PLANNING .....	33
ADDITIONAL SUPPLY AND STORAGE.....	34
OPERATIONS AND MAINTENANCE .....	35
PRIOR NOTIFICATION.....	36

# ARTICLE ON FRESH WATER FOR A DRAFT FINAL STATUS AGREEMENT BETWEEN ISRAEL AND PALESTINE

## PART ONE: INTRODUCTORY NOTES

06 June 2008

The material that follows is developed in response to the need to complete the terms of the Geneva Accord that was prepared and presented to the peoples of Israel and of Palestine by individuals outside the normal diplomatic or official channels. As originally written, the Accord identified the need for attention to water in Article 12, but that Article was left empty, “still to be completed.”

Resolution of issues related to fresh water that is shared by Israel and Palestine will not alone bring about peace between the two peoples. State borders, Israeli settlements, refugees, and Jerusalem far outweigh water as divisive issues. However, in the absence of a just resolution of water issues, no peace can be complete. Further, in the absence of *sustainable* use of water by both peoples, overall social and economic development will be threatened, and so too will be stability and peace for the region.

The general objective of what follows is to fill in the gap left by Article 12 in the original version of the Geneva Accord with respect to the surface and ground water of the land shared by the two peoples. The proposed replacement for Article 12 takes into account not only the other Articles of the Geneva Accord, but also the Oslo Agreements and other agreements that have been made in the long years in which Israel and Palestine (the two “Parties”) have sought a formula for peace between them.

### Written Outputs

Our contribution consists of three documents: **Introductory Notes, Water Article, and Annex.**

1. The **Introductory Notes** are intended to indicate how and why we approached the subject in the way that we did, and to guide the reader in reading the other two sections. Notably, the Introductory Notes explain why the Article does not aim for a quantitative allocation of water but rather for a process designed to achieve equitable accommodation and to avoid future disputes. Exceptions to that approach do appear where existing agreements and treaties determine current practice, but the exceptions are limited in geographic scope. The Introductory Notes also contain definitions that are used in the other two documents and identify the members of the advisory group that reviewed draft stages but who bear no responsibility for the final text.
2. The **Water Article** is designed as a quasi-legal instrument that can be inserted directly into the currently empty portion of the Geneva Accord for fresh water (Article 12). Our proposed Article defines Israeli and Palestinian water rights, and stipulates the basis for cooperative management of all water shared between Israel and Palestine. It lays out the key principles for achieving socially equitable, economically efficient and ecologically sustainable management for all water shared by Israel and Palestine, or, in the case of the Jordan River basin, by Israel, Jordan, Lebanon, Palestine and Syria. The Article also presents ongoing dispute resolution mechanisms to deal with the contentious issues that will arise over time.
3. An **Annex** supports the Article with spatial, temporal and technical details on how the principles are to be given effect, along with details on negotiation processes and management organizations.

Though it is the longest of the three documents, the Annex introduces no new concepts or approaches.

In addition to these three formal documents, a fourth document will be prepared to illustrate how the principles developed in the Article will work both under current conditions and in five to ten years after the signing of a Final Status Agreement between Israel and Palestine. It will also illustrate how the principles will work under conditions that may apply with more constrained water availability in the future. This informal document will be written in “clear language” so that it is widely accessible to the public.

### **Nature of the Work**

The water Article is concerned with the economically efficient, socially and politically equitable, and ecologically sustainable management of shared fresh water resources in Israel and Palestine. Several of these terms require elaboration to specify their use in this document. With some exceptions, shared water includes all water that flows along, across or under the border between Israel and Palestine, where “border” is defined by other Articles of the Final Status Agreement. The term “equitable” derives from the definition expressed in recent international law and means equivalent impact rather than quantitatively equal. Therefore, proposed measures are designed to take into account existing socio-economic disparities between the Parties. For example, they recognize existing use patterns, such as the higher per capita consumption in Israel, as well as the greater vulnerability to limits on water use by a Palestinian population that is more heavily dependent on agriculture than are Israelis. “Economically efficient” carries the conventional meaning of long-term cost effective actions, where “cost” also includes quantitative recognition of environmental impacts. Finally, “ecologically sustainable” refers to the ability of the resource to continue to supply services to human beings and to ecosystems over time, in light of both periodic and secular changes in climate.

Resource sharing that meets the needs of both Parties and thus promotes long-term peace requires management that satisfies the foregoing goals. This in turn requires an approach that is not simply quantitative (*i.e.*, treating water as if it were a pie to be divided according to pre-determined formulae), but that recognizes the fact that water flows and may be used several times between its source in rainfall or in springs en route to the sea or another sink, as well as the fact that human demands for this water vary over time in response to demographic, social, and economic changes. Such a statement could apply anywhere in the world, but it is much more important in Israel and Palestine because of:

- a) the precarious nature of water sources in the area because of climate and hydrology;
- b) the contentious political situation since 1948, complemented ironically by as many examples of distrust about water (among many other issues) and of cooperation over water between Israelis and Palestinians during those years;
- c) the historical legacy stemming from past negotiations over water, as with the Johnston Plan, which portrayed the issue as a quantitative division of the resource;
- d) the very different structures for management of water that are in place in Israel and in Palestine; and
- e) the dynamic nature of future socio-economic conditions that can be expected on both sides of the border after the signing of a Final Status Agreement.

All of the factors just listed, as well as others not listed, call for flexibility in joint management of shared water. The Article first defines those bodies of water that are shared by the two Parties and then establishes equal rights to that water. From this basic position, the Article provides for continuous, cooperative water management based on agreed-upon rights and responsibilities as well as ongoing monitoring and dispute resolution mechanisms. The main goals of the Article are to:

- 1- Assure water equity for Palestinians and Israelis over shared water resources.
- 2- Establish principles and mechanisms for joint management of shared water.
- 3- Establish principles and mechanisms for peacefully negotiating disputes involving shared water.
- 4- Take steps to promote sustainable water management in Israel and Palestine through protection of ecosystems.

Secondary goals are to allow extensive public participation and to promote transparency of process and of results. The Article is also designed to ensure that processes and results are resilient in the face of periodic droughts and the effects of climate change. As well, it takes into account expected population growth and economic development in Israel and in Palestine, and the need to maintain the health of ecosystems throughout the region.

The search to achieve these goals will initially bring currently hidden or suppressed conflicts between different interest groups to the surface. To deal with these conflicts, a dispute resolution process is proposed. This process does not aim to set up a judicial authority entrusted with implementing a law or a given clause in a treaty. Rather, it sets up a permanent mediation institution with the principal goal of settling disputes, as informed by appropriate investigations.

### **Premises**

The Article and the Annex are based on certain premises.

#### ***Premises Concerning The Final Israeli-Palestinian Peace Agreement***

1. Formal and agreed upon borders between the existing State of Israel and the new State of Palestine will be established in earlier parts of the Accord. Hereafter, when we refer to the two Parties (i.e., Israel and Palestine), those borders are assumed.
2. Also assumed is the resolution of the Israeli settlements on the West Bank and of linkages between the Gaza Strip and the West Bank.

#### ***Premises with Specific Reference to Fresh Water***

1. The whole region of Israel and Palestine is subject to climatic variability that subjects it to frequent and severe droughts, as well as occasional intense rainfalls and flooding. The need to design a regime that will be resilient to those effects is implicit in what follows, but their origin – whether natural or anthropogenic – is irrelevant.

2. Since 1948, and particularly since 1967, Israel's gross domestic product has greatly exceeded that of the West Bank and The Gaza Strip. In parallel, Israelis have far surpassed Palestinians in average per capita income and in providing basic needs such as electricity, housing and employment, as well as health care, educational facilities, and overall infrastructure development.
3. All Israelis (with the exception of Bedouin in unrecognized villages) are adequately supplied with fresh water for domestic use, but many Palestinians do not have access to even the necessary minimum quantities of fresh water, which are defined for our purposes as 20 litres per person-day of potable water plus another 30 litres per person-day of water of adequate quality for other household uses.
4. Palestinians are far more dependent on agriculture than are Israelis, whether viewed from the perspective of local livelihoods or from the perspective of the share of gross domestic product coming from agriculture. By implication, the marginal value product of additional water to Palestinian farms is significantly greater than to Israeli farms.
5. Because water flows and is commonly used several times as it moves along the surface or underground to the sea, it cannot be treated as if it were an immobile resource. Along the way, its quality generally changes and some of it evaporates.

### **Coverage**

For the purposes of this Document, water that occurs within the generally acknowledged borders of Israel and Palestine can be divided into three categories:

1. Water that flows naturally across, along or under a current or future border of Israel and Palestine, and that therefore requires bilateral Israeli and Palestinian management.
2. Water that flows naturally across, along or under a current or future border of Israel or of Palestine and one or more of the neighbouring states, and therefore requires multilateral management.
3. Water that neither crosses naturally nor flows naturally along or under any border and is therefore endogenous to one or the other of the Parties.

The Article and Annex will focus most fully on water that is shared only by Israel and Palestine (the first category). Where appropriate for sustainable water management, the focus will expand to make reference to water that is not shared (the third category). Further, it is impossible to ignore completely water that falls into the second category as it includes, most importantly, the Jordan River and the Dead Sea. For those waters, coverage will be limited to aspects that directly affect Israeli-Palestinian water use.

### **Existing Legal Context**

Several treaties and international initiatives have laid out principles to manage water, both in the world overall and, specifically, in the case of Israel and Palestine. Putting to one side for a moment the

numerous efforts during the 20<sup>th</sup> century to deal with water of the Jordan River basin, the more recent efforts include:

- Interim Agreement between Israel and the Palestinian Authority on the West Bank and The Gaza Strip (the “Oslo Peace Accord”), with particular reference to Article 40 of Annex III and its associated Schedules (Numbers 8 through 11).
- Declaration on Principles for Cooperation on Water-Related Matters and New and Additional Water Resources, signed by Israel, Jordan, and the Palestinian Authority in 1996.
- Water Resources Working Group set up by the Madrid Process including, especially, the work carried out by the Executive Action Team (EXACT).

In addition, much “Second Track” (non-diplomatic) literature emerged from academic institutions and from non-governmental organizations during and even after the “Oslo period” of active Israeli-Palestinian negotiations. Our material is also based on the norms incorporated in international agreements for sharing of boundary and trans-boundary water between two (or more) states; most notably, it is based on the norm of reasonable and equitable use which, in many agreements, supplants or amends the “first-in-time; first-in-right” approach to determining access to water.

Israeli-Palestinian water management has been shaped in part by the Johnston Plan (1953) and the Jordan-Israel Peace Treaty (1994), especially its Annex 2, which refers to water. However, neither the Johnston Plan nor the water portions of the Jordan-Israel Peace Treaty makes explicit reference to Palestine. Based on the incontestable fact that Jordan is one of the most water-stressed states on earth, we interpret those earlier documents as including water for Palestinians in Israel’s water allocation according to this Treaty. The specific division we propose is admittedly arbitrary, but the need to preserve the Jordanian share as defined in the Treaty is not.

### **New Considerations**

The Article and Annex incorporate experience that has emerged from the years of operation of the Oslo Interim Agreement, which produced the Joint Water Committee, and of the Jordan-Israel Peace Treaty. Most notably, this Article recognizes the following:

- 1- Quantities of renewable flow in any aquifer, but especially in a karstic formation, such as the Mountain Aquifer, are difficult to assess, and quantitative allocation of water based on such an assessment may be impossible to implement if it overestimates or underestimates the amounts available. The Article therefore operates from the basis that fixed quantitative allocations cannot yield a solution.
- 2- The usefulness of any quantity of water depends on its quality. The Article therefore considers water quality as important as water quantity. Two methods for achieving water quality are proposed: a) targets the Parties will commit to achieve; and b) mechanisms promoting joint management of water quality. Priority is given to this second route because such mechanisms will encourage sustainable implementation of the Agreement. For example, clauses in the Article commit the Parties to enforce sewerage and treatment of all wastewater above the Mountain Aquifer, including the closing of existing cesspools and

cesspits, all of which are essential if the Mountain Aquifer is to remain a source of potable water.

- 3- The Johnston Plan, and later the Oslo agreements and the Israeli-Jordanian Peace Treaty, all treat water in a quantitative manner as if it were a pie to be shared. Those agreements sought to allocate a given amount to each party. For several reasons, the Article that we present breaks with this approach. Demographic and economic development of the area will unavoidably alter the pattern of resource use. A quantitative allocation that appears just at one point in time will appear unjust after a few years because of changing socio-economic demands. Moreover, water does not vanish when it is used. Part of the water used in irrigation returns to the aquifer and is used further downstream once again. Similarly, water used for domestic purposes reappears as wastewater. Therefore, instead of fixed quantitative allocations, this Article elaborates mechanisms that allow (a) peaceful resolutions of the conflicting demands for shared water that will arise in the years after a Final Status Agreement has been signed; (b) appropriate management of water quality so that those repetitive uses of the same water drops do not degrade them to the point they lose their usefulness; and (c) incorporation of additional volumes of water that may become available through desalination, advanced methods of wastewater treatment, or other technologies.
- 4- Following from 3, the broad goal is to seek resolution of water issues through stipulations that are both operational and likely to be stable, rather than through rules impossible for one or the other Party to implement. These treaty stipulations must be equivalent rather than equal for Israel and Palestine. They must take into account the centrally managed character of most water management in Israel versus the communally managed character of most water management in Palestine. The two approaches cannot be simply merged, nor, except in a few areas, can a compromise between them be identified. Each approach has its advantages and disadvantages. The draft Article and Annex are designed to build upon processes that reflect the social, cultural and economic characteristics of each of the two societies. Any attempt to replace or repress those two different societal patterns will, at best, simply not be implemented and, at worst, create instability that will threaten other aspects of the peace process.
- 5- Many aspects linked to water cannot be expressed in terms of a demand that is measured in monetary units. Water, and, notably, irrigation, has deep meaning within Israeli and Palestinian culture. This Article recognizes the role played by water in maintaining a social fabric and establishes mechanisms to preserve this.
- 6- Finally, the narrow economic focus used to consider water since 1993 has failed to incorporate environmental considerations. This Article gives explicit consideration to the role of water in maintaining the health of ecosystems.

## **Authorship**

Preparation of this document was undertaken jointly by Dr. David B. Brooks, Senior Advisor – Fresh Water, Friends of the Earth Canada, Ottawa, Canada, and Dr. Julie Trottier, Department of Political Science, University of Newcastle, Newcastle, UK.

The Document was prepared for Friends of the Earth - Middle East (FoEME). Nader Al-Khatib and Gidon Bromberg, respectively Palestinian and Israeli coordinators of FoEME, have worked with the authors from the start of the project and have, in effect, served as an immediate peer review team.

## **Definitions and Abbreviations**

Agreement:	Draft Final Permanent Status Agreement between the State of Israel and the Palestinian Authority leading to, among other things, a peace settlement and creation of the State of Palestine.
Article:	That part of the Agreement that includes the main clauses pertaining to fresh water
At Cost:	A price per unit that includes all operational and maintenance costs plus an allowance for recovery of capital cost but that does not include any return on capital or profit.
BWC:	Bilateral Water Commission.
Communal Water:	Water that is subject to a communal property regime. A specific group owns the resource and defines the rules delimiting its own composition and its boundaries as well as those determining the allocation of water from a given source. Communal management remains the predominant property regime for water in Palestine even though it is not formally recognized by Palestinian water law.
Demand Management:	Any method for reducing the volume of or the quality of water needed to accomplish some task at costs lower than the opportunity costs of supplying the given quantity and quality of water.
Document:	The Article plus the Introductory Notes plus the Annex.
Equity:	The achievement of equivalent impact on all parties. This is not a synonym for “equality.” For example, sharing water or reducing water abstraction equitably does not mean sharing water or reducing water abstraction in equal quantities. It means sharing water or reducing water abstraction in a manner that will have equivalent impacts on all parties. If one party is more vulnerable to a reduction of its abstraction than the other because, for example, agriculture employs a greater proportion of its population, reduction of its abstraction can be less than that of the other party while remaining equitable.

EXACT:	Executive Action Team, as created by the Water Resources Working Group of the Multilateral Track of the Middle East Peace Process.
FoEME:	Friends of the Earth Middle East.
Institution:	Rules that emerge either formally (such as a water law) or informally (such as rules-in-use at a local level or custom at the international level) define and confer responsibilities to bodies, the existence of which shows a persistence in time. All such bodies constitute institutions.
Interim Agreement:	Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip (Washington, DC: 28 September 1995).
Joint Project:	A working team that is designed to accomplish a relatively limited investigation or enquiry, that is comprised of roughly equal staffing from citizens of both Parties, together with external consultants or volunteers as needed, and that reports results to the officials of both Parties.
Minimum Household Requirement:	An estimate of the amount of water that must be available for basic human needs. Each Party is free to define the appropriate level for its own citizens, or even different levels for people living in different regions. For the purposes of this document, the Minimum Household Requirement is defined as 50 litres of water per person-day, of which no less than 20 litres must be potable and the other 30 litres of sufficient quality for other household uses. However, either Party is free to set higher standards.
Open Forum:	Hearings that are open to the public but that do not include active participation by members of the public as witnesses or questioners. All testimony is by invitation.
(The) Parties:	Israel and a future State of Palestine, with borders as defined in the Final Status Agreement.
Private water:	Water that is subjected to a private property regime. An individual or a named set of individuals owns the resource and sells it at will. This is the least common property regime for water in the region. Much communal water is often incorrectly referred to as private water.
Public Hearings:	Hearings that are open to participation by the public without invitation by the organization holding the hearings and that permit the public to question witnesses.
Public water:	Water that is submitted to a public property regime. Here the public owns the resource and the state, which holds the water in trust for the public, spells out the allocation of the resource for every user. This is the predominant property regime in Israel and is recognized by Israeli water law.
PWA:	Palestinian Water Authority.

Residual Competence: Any responsibility that is not specifically detailed in the treaty belongs to residual competences. An institution that retains residual competence retains all of its responsibilities except for those that are specifically attributed to another institution.

Rules-in-Use: The agreed upon manner a resource is actually managed by a group in specific situations. Rules-in-use often differ from formal rules that have been recognized in writing. They can remain oral, yet be scrupulously obeyed within a community. The extent to which a community produces, deploys and adheres to rules-in-use is testimony to its social capital.

Soft (Informal) Law: Practices to which states or other official bodies adhere even though they are not codified in any treaty or body of law. A good example is the wide acceptance that there is a human right to enough potable water for drinking, cooking, cleaning and sanitation.

WMB: Water Mediation Board.

(End of Introductory Notes)

**ARTICLE ON FRESH WATER FOR A DRAFT FINAL STATUS AGREEMENT BETWEEN  
ISRAEL AND PALESTINE**

**PART TWO: ARTICLE 12 OF ORIGINAL GENEVA ACCORD: WATER**

**03 June 2008**

With the view to achieving a comprehensive and lasting settlement of all water problems between Israel and Palestine (the Parties), and to ensuring that the shared water resources of the Parties to this Final Status Agreement (hereafter “Agreement”) are used in ways that are economically efficient, politically and socially equitable and ecologically sustainable (hereafter, for simplicity, “efficient, equitable and sustainable”):

1. The Parties agree to recognize their interdependence in sustaining the quantity and the quality of all waters that flow naturally across, along or under their borders (hereinafter “shared water”), with those borders as defined in prior Articles of this Agreement. All subsequent clauses in this Article assume the existence of such borders and the resolution of the status of “settlements” within those borders.
2. The Parties recognize that joint activities to manage and protect water resources can form the basis for the advancement of other forms of co-operation between them, and they therefore agree to encourage such activities in good faith and with appropriate resources.
3. The Parties agree that Demand Management, as defined in the Introductory Notes, shall be given priority over efforts to increase water supply, and that all requests for funding of new supply will be considered against policy and program options that reduce the need for additional water or that reduce the quality of water required for the end use.
4. The Parties recognize and agree that the interactions are so strong between surface and ground water, and between potable water and water of lower quality, whether such lower quality is a result of natural or anthropogenic conditions, or whether or not it has been subject to treatment, that, unless specifically excepted in subsequent clauses, all shared water within their respective territories is subject to this Agreement. Specific exceptions to the treatment of water as shared appear in Clause 6 below.
5. The Parties accept that the Agreement applies to private, communal, and public water systems that withdraw resources from shared water bodies. They further accept that local forms of water management have historic standing in many parts of the region, and that they convey what are called “soft” or informal water rights. The Parties express their wish to recognize local forms of management and their participation in water management.
6. The Parties further recognize that they can only deal with shared water in an efficient and equitable manner if they accept forms of joint management. They therefore agree that, if necessary, they will amend their respective legislation concerning water, as well as administrative rules and regulations concerning water, to bring them into conformity with the Agreement. Such changes will be made within one year of the date at which the Agreement comes into force.

7. The Parties also agree that water that is not defined as shared water is exclusively subject to the sovereign authority of one or the other Party. In some cases, the definition is based on the need for efficient administration and monitoring, and may not be strictly consistent with hydrological boundaries. Coastal Aquifer that underlie Israel are Israeli and those portions that underlie the Gaza Strip are Palestinian. Water in and under the Negev is exclusively Israeli. In addition, for purposes of ease of administration and monitoring, as well as minimization of conflict, it is further agreed that:
  - 7a. The Western and Northeastern blocks of the Mountain Aquifer are shared water, but the Eastern block of the Mountain Aquifer will be considered Palestinian. However, Israeli communities, including but not limited to Ein Gedi and the Dead Sea Works, which currently receive water from the eastern block will continue to receive water, at 2006 levels, and that water will continue to flow to nature reserves in patterns and quantities adequate to maintain the ecosystem. Responsible authorities in Israel can negotiate for delivery of additional quantities of water with their counterparts in Palestine.
  - 7b. All water in and under the Gaza Strip will be treated, for the purposes of this agreement, as non-shared Palestinian water even though this designation may not be strictly true in hydrological terms. Any reservation or exception listed in Schedule 11 of Annex III of the Interim Agreement is hereby revoked. In parallel, those portions of the Coastal Aquifer that underlie Israel will be considered Israeli.
  - 7c. Water in the Sea of Galilee is Israeli, except for the quantity of water equal to the annual flow from the Sea into the Lower Jordan under natural conditions, as determined annually by the Office of Science Advisors (defined in Clause 7c of the Annex) will be considered as shared water.
  - 7d. The general rule is that water from a wastewater treatment plant belongs to the Party within which the plant lies. If a treatment plant receives water from the other side of the border, the Parties must negotiate an allocation of the treated waste water and associated costs. If a joint treatment plant is built, the Parties will negotiate an appropriate allocation of costs and of receipt of treated waste water.
  - 7e. Water that is produced by desalination belongs to the Party in which the desalination plant is situated, unless specific provisions are made for an alternative arrangement.
8. Each Party agrees to recognize the same water rights and obligations for the other Party as for its own citizens. They further agree that, because of the variability of flows and the interconnections among sources, these rights cannot, for the most part, be defined as fixed and permanent quantities of water. Rather, they must be defined as a bundle of rights and responsibilities to manage water according to a set of mechanisms whereby each Party has a right or duty to a) access water, b) use water, c) treat water, and d) release waste water, as well as to set the limits necessary for the access, use, treatment and release in ways that will maintain the quantity and quality of flow in all shared water sources.
9. Part of the recognition of parallel bundles of rights and obligations for the citizens and the institutions of the two Parties is agreement that existing patterns and volumes of water use have some standing within the bundle. This does not mean that those patterns and volumes must be

maintained, but that they may be altered only after due consideration for impacts and that changes may only be implemented gradually to permit time for adjustment.

10. Article 40 of Annex III (Protocol Concerning Civil Affairs) and its several related Schedules of the Interim Agreement will stay in force until the institutions, rules and management mechanisms described in this article have progressively replaced it. This process will be complete and definitive one year after ratification of the Agreement.
11. The Parties also recognize that some water in the region, most importantly the water in the Jordan River basin, is shared with other sovereign States, and the Parties agree that, apart from Hashemite Kingdom of Jordan, with which Israel already has a Peace Treaty, those waters will require separate negotiations with the relevant state authorities. The Parties agree to enter into such negotiations in good faith and with the goal of seeking the mutual benefit of all peoples of the Basin.
12. The Parties agree that Palestine will be treated as a riparian on the Dead Sea, and that therefore both Palestine and Israel have water rights described by international conventions and those rights shall be recognized by including Palestine as a full member of any multilateral negotiations about future use, management or alteration of the Dead Sea, including flows to the Sea as well as withdrawals from it.
13. Water allocated to Israel and Jordan under the Jordan-Israel Peace Treaty requires special consideration. The Parties therefore agree on the following terms:
  - 13a. Allocation of water from the Lower Jordan River begins from the assumption that water explicitly allocated to Israel under Annex 2 of the Jordan-Israel Peace Treaty is implicitly allocated jointly to Israel and Palestine. In all other respects, this Agreement leaves in place all of the provisions in Annex II of that Treaty.
  - 13b. In recognition of the needs for development of Palestinian communities, tourist facilities, and crop and animal processing, all of the allocations to Israel shall be divided in equal quantities with Palestine. In the event that Palestine cannot use all of the allocated water, the surplus may be sold by Palestine to Israel. Any such sales shall be made for annual periods, and renewal can be automatic in the absence of objection, but it can be revoked with six month's notice.
  - 13c. Capital and operating costs for movement of water from the Jordan River will be on the account of the Party to which the water is flowing. If joint infrastructure is necessary, cost sharing will be negotiated by the Parties by use of a simple criterion such as length of pipe.
14. The Parties accept that renewable flows in aquifers are subject to some degree of scientific uncertainty, as well as to seasonal and longer term variability. Therefore, they agree to extract shared ground water on the basis of continuous joint monitoring and in quantities and flow patterns that are continuously modulated according to the following rules:
  - 14a. The Office of Scientific Advisors seconded to the Bilateral Water Commission (as described below) will establish a maximal seasonal abstraction for each well tapping shared water in Israel and in Palestine, based on information about the state of the aquifer as supplied by agencies in the Water Authority of Israel and the PWA of Palestine.

14b. When pumping from a well exceeds allowable extraction rates or has an adverse effect elsewhere in the aquifer, the institution operating that well or the adversely affected institution will contact the relevant authorities in the government of the Party within which the well lies. This action is required regardless of whether the said institution is national or local and whether it operates via a public, communal or private property regime. Those authorities will follow their own procedures to resolve the issue, including cooperation with the relevant authority in the other Party. However, if such procedures have been exhausted and found inadequate to resolve the issue, the following additional procedures will be implemented by the relevant institutions:

14b(i): The institution operating the well causing the negative impact will be required to cease pumping from that well or to reduce pumping to a rate that avoids the said impact.

14b(ii): In cases when the well is partially or exclusively used for domestic consumption, the institution responsible for managing the well will receive assistance from its State if required to ensure the minimum household requirement (as defined in the Introductory Notes) for the entire population normally served by that well. Such assistance can include securing water from other wells, whether State, private or communal wells through appropriate procedures. Uses at levels greater than that of the minimum household requirement should also be considered, but assistance from the state is not required.

14b(iii): In cases when the well is used for both domestic consumption and for irrigation, the institution responsible for managing the well will decide upon the new allocations from the reduced flow. In case this is a communal institution, it will negotiate the rate of reduction of the flow with the relevant ministry. It will also suggest and give priority to options to mitigate any harm caused by reduced flow to the community that relies on that institution for its water so that farmers can save as much of their crops as possible according to their priorities. If necessary, the institution will receive assistance from its State in order to ensure the minimum household requirement for the entire population served by that well. Such assistance can include securing water from other wells, either state or communal wells, through appropriate procedures.

14b(iv): In cases when the well is used only for irrigation, the institution responsible for managing the well will decide upon the new allocations from the reduced flow. In case this is a communal institution, it will negotiate the rate of reduction of the flow with the relevant ministry. It will also suggest and give priority to options to mitigate any harm caused by reduced flow to the community that relies on that institution for its water so that farmers can save as much of their crops as possible according to their priorities.

14b(v): In cases when a State cannot assist the relevant institution to ensure the minimal household requirement, appropriate authorities from the other Party will assist it to meet this requirement.

15. The Parties recognize that each side will likely be facing shortages of water delivery capacity in comparison with the demands for water, and that therefore revised extraction rates of shared water may be necessary in order to maintain sustainable flows. In such cases, the following rules will be applied to distribute the burden of reductions in an equitable manner:
  - 15a: In order to achieve equitable allocation, the overall reductions in allowable extraction rates will not necessarily be equal for each Party. Rather, the lower income Party will not suffer an overall reduction as great as the higher income Party, where “lower income” is defined as average per capita monetary income. The extent of the reduction will be determined on a case-by-case basis by the two Parties. If agreement cannot be reached, the case will be brought to the Water Mediation Board (described below).
  - 15b: Clause 15a will cease to be applied when the lower income Party reaches a level of average per capita monetary income that is within 20% of that of the higher income Party, a difference that is within the margin created by different economic structures, neglect of non-market income, and political choices. After that time, reductions shall be equal for the two Parties.
  - 15c: The same rules will apply in case of a decision to allow increased extraction from existing wells, diversions or other extraction methods, or from a new well, diversion, or other extraction method.
16. The Parties agree to abide by the principle of subsidiarity whenever they will consider undertaking infrastructure construction to increase the supply or the treatment of water. This means that they will seek a solution at the lowest possible level. They therefore agree to demonstrate that they have (a) exhausted economically feasible methods to reduce the demand for water, and (b) given all the support they can offer each other according to the rules above before they seek funding from the international community for new investment in water infrastructure.
17. In order to provide the minimum household requirement in the Gaza Strip, which has a high refugee population and which is physically separated from the West Bank, the Parties agree, among other things, to:
  - 17a: Implement within six months after the Agreement comes into force an interim solution to the current drinking water problem by arranging with the Water Authority in Israel for deliveries from Mekorot or successor entities with the objective of ensuring that every resident in the Gaza Strip has the minimum household requirement for water. The terms of such delivery can be negotiated by appropriate officials from each Party except that the water will be delivered at cost, as defined in the Introductory Notes.
  - 17b: Assess alternatives for longer term fresh water supply and use, and wastewater treatment and reuse, with the goal of developing a long-term plan for water management that will be appropriate for projected future conditions in the Gaza Strip. The long-term plan shall not focus exclusively on residential use but also include water for viable commercial, agricultural and industrial activities. It shall also include a formal implementation and enforcement program capable of preventing over-exploitation of ground water under The Gaza Strip.

- 17c: Allow Israel to continue its current pumping to divert saline water from flowing into the Gaza Strip. Should Palestine seek to use this water, Israel will cease these diversions.
- 17d: Achieve a joint water management agreement on the natural flows of the Besor River into Wadi Gaza.
18. The Parties undertake to protect, each within its own jurisdiction, all shared waters against any pollution, contamination, harm or withdrawals unauthorized by the rules determining abstraction levels on the basis of continuous monitoring. The following provisions supplement, but do not alter or amend, those in the Agreement between the Parties with respect to Environmental Cooperation. Should any Clause here appear to contradict a Clause in the Agreement on Environmental Cooperation, it shall be the latter that has Standing. Within this qualification, the Parties agree to:
- 18a: Respect and, as necessary, strengthen previous agreements, including those created by the Interim Agreement, to treat and dispose of all waste water in such a way that it poses no threat to the aquatic or terrestrial environment and that, to the greatest extent possible, can be reused through direct transfer or subsequent withdrawal. Each Party commits to assist the other with any data and information that can help it achieve this goal.
- 18b: Action to protect aquifers has high priority. The required actions fall into three categories:
- 18b(i): Take immediate action to stop flows of sewage water or of other effluents into aquifers from inadequate household or village system. The Parties commit their respective authorities to take action, such as providing incentives to close cesspits, cesspools and latrines over the intake areas of the aquifers, and their replacement as rapidly as possible by low-cost, environmentally satisfactory, local wastewater management and treatment.
- 18b(ii): The Parties commit themselves to review and evaluate existing plans to treat sewage from larger communities and cities and to adopt whatever approach seems both appropriate and feasible, with attention to the principle of subsidiarity as expressed in Clause 15 above.
- 18b(iii): The Parties also commit to act in collaboration with other government institutions and agencies to control land use with the objective of restricting and regulating uses that have a significant potential to harm the aquifer, while also protecting areas that serve as wetlands for wastewater treatment.
- 18c: Develop programs to monitor water quality at the approximately same level of coverage and sampling intervals as they have monitored water quantity in the past. Innovative means will be sought to assess water quality of aquifer flows. The protocols for the substances to be tested for and the procedures will be specified by the Senior Science Advisors of the Bilateral Water Commission, based on information supplied by agencies within the Government of Israel and the Government of Palestine.
- 18d: Carry out joint monitoring under which each Party will assist the other when it sends officials to sample water quantity or quality on the other's territory.

- 18e: Permit officials to take samples from agreed upon locations, and to bring back these samples to their laboratories in order to analyze them independently. If requested by the officials from the other Party, two samples will be taken and one sent to those officials.
  - 18f: Share the results of these analyses systematically with the other Party's officials using protocols developed by EXACT, unless the Parties agree on another protocol.
  - 18g: Allocate costs for remediation to the Parties benefiting from the remediation in proportion to the benefits they receive.
19. Parties shall ensure that the management and development of their water resources do not harm the water resources of the other Party. In particular, each Party accepts the following principles:
- 19a: All development, use or treatment of water within their own territories is subject to commonly accepted international norms of avoiding substantial damage to the other party and to timely exchange of information about proposed activities that might affect the quantity or quality of water flows to the other Party.
  - 19b: Each Party will notify immediately the other Party of any accident or natural disaster that may affect quantities or qualities of water flowing to, or failing to flow to, the other Party.
  - 19c: Some volume of both shared and non-shared waters must be left in situ to provide for a wide range of ecological services. The determination of these volumes and of how to use them so as to maintain the health of ecosystems will be determined by the water authorities of each Party. Interim volumes and flow patterns for shared water will be established and published within two years after the Agreement comes into force on the basis of common guidelines put forward by the Senior Science Advisors of the Bilateral Water Commission, based on information supplied by agencies in the Government of Israel and the Government of Palestine. The interim volumes and flow patterns will remain in force for the following three years, during which the authorities of each Party will conduct consultations, after which final volumes and flow patterns will be set. Those figures will be published, with implementation monitored by appropriate agencies in the two Governments, and the information sent to the Senior Science Advisors of the Bilateral Water Commission. The final volumes and flow patterns will be reviewed every five years thereafter.
  - 19d: It is recognized that the provisions of 19c apply most specifically to surface water, for which methods for estimation of in-stream flows are coming to be accepted. They apply only generally to aquifers for which such estimates are inherently more difficult and remain to be developed to a similar level.
  - 19e: The total of their water resources is not sufficient to meet all their expectations, and therefore the first priority for use of water in times of emergency or prolonged drought should be to meet the minimum household requirement.
20. New supply projects, including those projects involving regional and international co-operation, can only mitigate existing levels of scarcity. Therefore, primary consideration in use of shared water must go to greater efficiency in the delivery, storage and end-use of water.

- 20a: Both Parties agree that demand management practices and policies will be pursued to the extent that is feasible according to economic criteria that take account not only of direct costs but also of avoided environmental damages.
- 20b: Use of water for irrigating crops requires so large a volume of water that development of irrigated agriculture will aim to provide water from rainwater harvesting and from reclaimed wastewater. Institutions that have been deploying communal or private management of irrigation water, whether from wells or springs, will be recognized as special cases. Any change in their use of water will be negotiated with these institutions, with alternatives offered to compensate for any losses, whether economic or social, incurred by a reduction of ground or surface water devoted to irrigation. Priority will be given to options proposed by those institutions.
21. The Parties recognize the need for joint management of shared water, and they declare their intention to form, the following joint management bodies, and to make any necessary adjustments in existing laws and regulations to accommodate the existence of these bodies. The relationship of these bodies to one another and to their respective governments is illustrated in Figure 1. Further information on each body is provided in the Annex.
- 21a: The Bilateral Water Commission (BWC), which will replace the current Joint Water Committee and, in addition to the duties assigned by Article 40, Schedule 8, shall have final management responsibility for all shared water, including, most importantly, granting permits for drilling, granting permits for water withdrawals, wastewater collection and treatment, and, in cooperation with national authorities, for controlling releases of effluent and ensuring that they are treated to an appropriate level of quality. The Commission will make decisions in ways that give equal roles to each of the two Parties. Methods for implementing this management authority and for ensuring equal roles are detailed in the Annex.
- 21b: Several bodies will report directly to the Bilateral Water Commission:
- 21b(i): The Mountain Aquifer exhibits a number of characteristics that indicate the need for unified management. Therefore, a Mountain Aquifer Authority will be created under the BWC and will exert broad management responsibility for the aquifer that underlies the height of land between the foothills east of the Mediterranean Sea and the Jordan rift valley. As described further in the Annex, it will ensure the targets and rules set by the Senior Science Advisors of the BWC are appropriately implemented. In case they are not, and if resolution can not be achieved through direct negotiations with the responsible bodies or entities, the Authority will file a complaint with the Water Mediation Board.
- 21b(ii): Ephemeral rivers that flow across a border from the territory of one Party to that of the other en route to the Mediterranean Sea exhibit a number of common characteristics that suggest the need for similar forms of management. Therefore, the BWC may choose to create a Coastal Wadis Committee to review, analyze and suggest appropriate management strategies for these ephemeral rivers. The Coastal Wadis Committee will operate with a limited temporal mandate pending determination of whether continued operation is appropriate.

- 21b(iii): The BWC will also have an Office of Scientific Advisors, headed by two Senior Scientific Advisors, one seconded from each of the two Parties. Their role will be to serve as links to information and analyses in their respective governments as needed by the BWC. In particular, they will have to have access to water data and mapping, presumably based on protocols developed by EXACT, to information on water quality, and on environmental impacts of water withdrawals, water use, water release, and water infrastructure. Both Parties commit themselves to ensure that information channels remain open and that responses to requests for information will be provided promptly and in good faith.
- 21c: The Water Mediation Board will be created in parallel with the BWC in order to promote mediation or arbitration processes for those issues that cannot be resolved within one of the other authorities or by other water management bodies dealing with shared water. It will not have judicial authority, but will seek positions that are acceptable if not optimal for communities or institutions that bring issues before it.
- 21d: The Local Water Management Board will initially report to the relevant ministry in each Palestine and in Israel for administrative purposes only, and will have a life of three years. Financing for the Board will come from registration fees plus matching funds from the two Ministries. Its initial task will be to identify and register local water management institutions deploying communal or private property regimes in order that they have “standing” in future processes in managing shared water for which they are responsible. Its second task will be to ensure that these institutions can approach the Water Mediation Board with equity and, where the circumstances so require, provide assistance such as translation, literature searches, etc. Within three years, the two administering ministries will develop a process to transfer responsibility for the Local Water Management Committee to the local institutions, including provisions for election of members and for self-financing.
22. In light of previous paragraphs of this Article, and understanding that co-operation in water-related subjects would be to the benefit of both Parties, and that water issues along their entire boundary must be dealt with in their totality, the Parties agree to search for ways to co-operate in the following fields, both bilaterally and multilaterally:
- 22a: Development of existing and new water resources, including the direct use of saline water or its upgrading, the re-use of treated sewage effluents, water harvesting and desalination of brackish water and sea water.
- 22b: Minimizing the losses of water in transportation, storage and use.
- 22c: Prevention of contamination of water resources.
- 22d: Protection and maintenance of soil quality in agricultural areas.
- 22e: Maintenance of open space and habitat that is as undisturbed as possible.
- 22f: Provide mutual assistance in the alleviation of water shortages;

- 22g: Transfer of information and joint research and development in water-related subjects, and review of the potentials for enhancement of water resources development, protection, conservation and use.
23. The Parties wish to indicate that nothing in this Agreement is intended to preclude exchanges of water between them, for example where Israel has a surplus of water in location A and trades it to Palestine in return for an equivalent volume of water that is surplus to Palestine in location B. Similar trading could also occur seasonally. Nor is anything in this Agreement intended to preclude sales of water from one Party to the other with prices and other conditions set by existing laws or by laws that are passed by the Parties in the future. Such sales of water must, however, be carried out equitably and the rights of the communal institutions must be respected. Their water will not be sold without their consent.
24. The Parties accept that the use of water in all parts of their respective economies, regardless of whether it is or is not shared water, as well as the pricing of water, are within their sovereign authority. However, they also accept that achievement of efficiency, equity and sustainability is so critical that efforts to reduce the use of water through demand management are legitimate issues for negotiations between them.
25. The Parties recognize that either side may build defensive structures along borders as agreed to in earlier portions of this Agreement. However, such structures shall be designed so as to avoid impeding the flow of water across, along or under the border, and so as to permit the passage of aquatic flora and fauna in ways that maintain the integrity of the natural water systems. The structures shall not be designed in such a way as to contaminate water on either side of, or under, the structure. Nor shall they be built in a way that harms the integrity of a water network, including both sources and uses, whether for domestic or irrigation purposes. Where the existing route of the wall does transect such a network, its location may have to be moved if options to permit local use cannot be negotiated.
26. The Parties recognize that the definition of borders in earlier Articles of this Agreement will mean that existing infrastructure for water delivery and wastewater treatment will cross the border. They agree that, upon the signing of this Agreement, ownership of such infrastructure will be transferred intact and in good condition to the Party within which the infrastructure occurs, and that the recipient Party takes full responsibility from that time for its operation, maintenance and replacement.
- 26a: Compensation for invested costs of that infrastructure that has not been recovered in other ways will be consistent with compensation for other forms of infrastructure as detailed in other Articles of this Agreement.
- 26b: Written instructions for operation and maintenance of transferred infrastructure, and, if necessary training for operation and maintenance, will be provided at no cost.
27. If previous Articles of this Agreement provide for a Palestinian corridor between the Gaza Strip and the West Bank, a water pipeline within the corridor can be considered in light of other clauses of this Article.
28. Previous clauses of this Article shall constrain, but not contradict, provisions agreed to in other Articles of the Final Status Agreement, including but not limited to Item 6.11cii with respect to

water services in Jerusalem. To the extent that previous clauses of the Article affect water shared with other States, notably the waters of the Jordan Basin, they are not intended to contradict or alter provisions of the Jordan-Israel Peace Treaty.

(End of Article on Water)

**ARTICLE ON FRESH WATER FOR A DRAFT FINAL STATUS AGREEMENT BETWEEN  
ISRAEL AND PALESTINE**

**PART THREE: ANNEX (EXPLANATORY NOTES TO ARTICLE)**

**03 June 2008**

<b><u>CONTENTS</u></b>	<b><u>CLAUSE(S)</u></b>
Water Rights And Responsibilities for Shared Water	1 - 2
Management of Shared Surface Water	3
Management of Shared Ground Water	4
Management of Waste Water Flowing into Shared Water	5
Bilateral Management for Shared Water	6 – 9
Demand Management of Shared Water	10
Shared Agricultural Water	11
Contingency Planning	12
Additional Supply And Storage	13
Operations and Maintenance	14
Prior Notification	15 - 16

**WATER RIGHTS AND RESPONSIBILITIES FOR SHARED WATER**

1. As recognized in Article 12 (“Principles”), Palestine and Israel have identical water rights to all shared water, and such rights entitle them to participate in joint management. Those rights also confer responsibility, among other things, to manage water efficiently, to distribute it equitably, and to protect water from contamination. They do not necessarily imply equal allocations of water from any shared source. Rather, abstraction rates will be determined by a process defined below. The object of the process is to achieve a balance among the goals of economic efficiency, political and social equity and ecological sustainability (hereafter, for simplicity, “efficiency, equity and sustainability”) with respect to access, use, treatment and discharge of shared waters as well as to protect the integrity of ecosystems within which the water occurs.
2. In both Israel and Palestine, all naturally occurring water is owned by the public, and is held in trust by the State for the benefit of the respective populations. However, customary management of that water has in many places been carried out by local and communal groups. Management may also be delegated to institutions within rules and regulations that each Party has developed. Two general conditions therefore apply: a) Local Water Management, which includes water that is managed by a municipality, a water utility or any communal institution (whether called “private” or not, and whether formal or informal); and b) Central Water Management, which includes water that is managed by the central government – that is, by the Palestinian Water Authority (PWA) in Palestine and by the Water Authority in Israel. (Nb: In everything that follows, read “PWA” as referring to the current PWA or any successor organization. The same extension applies to the “Water Authority” in Israel.)

### **MANAGEMENT OF SHARED SURFACE WATER**

3. Management of shared surface water will continue to be carried out by the institution already managing it before the Agreement was signed.
  - 3a: In cases where a spring is currently managed as communal water by a local institution, it will remain managed by that institution. The institution will retain residual competence, honoring the responsibilities specified elsewhere within this Annex and benefiting from the water quality protection and remediation mechanisms specified in this Annex concerning negative impacts on the spring flow or water quality caused by a third party whether because of extraction elsewhere, urbanization elsewhere, or any other factor. As well, the local institution will be responsible for ensuring that any water it delivers will be of a quality appropriate to the end use, and, above all, potable quality when supplied for that purpose.
  - 3b: In cases where a spring or stream is already managed centrally as public water, it will remain managed by that national institution which will retain residual competence, honoring the responsibilities specified within this Annex and benefiting from the water quality remediation and protection mechanisms specified in this Annex concerning negative impacts on the spring flow or water quality caused by a third party whether because of abstraction elsewhere, urbanization elsewhere, or any other factor. As well, the central agency will be responsible for ensuring that any water it delivers will be of a quality appropriate to the end use, and, above all, potable quality when supplied for that purpose.
  - 3c: Each institution with residual competence concerning a body of surface water, be it a spring, a river or a pond, will share with appropriate national agencies and bodies working on shared management under the Agreement the information it has on the quality of its water according to the protocols used by the authorities of the two Parties.
  - 3d: Each institution with residual competence concerning a body of surface water, be it a spring, a river or a pond, will allow the experts of any appropriate national agency, whether Israeli or Palestinian, and bodies working on shared management under the Agreement, to take a sample of its water in order to analyze quality within its own laboratories.
  - 3e: Each institution with residual competence concerning a body of surface water, be it a spring, a river or a pond, will be able to refer the matter to the Water Mediation Board (described in this Annex) if it considers a development carried out by a third party is altering its water flow or water quality in a negative manner. Equally, each such institution can be brought before the Water Mediation Board if some other institution considers that the former is adversely affecting its water quality or its water flow rates.
  - 3f: Each institution with residual competence concerning a body of surface water will decide independently on the new forms of allocation of its water if it is faced with a reduced flow because of an external development that is approved by appropriate national agencies or bodies created as part of the Agreement, including but not limited to the Water Mediation Board after the process described in this Annex has been followed.

- 3g: Each institution with residual competence concerning a body of surface water will be responsible for reaching the water quality targets and the ecosystem protection required by the Senior Science Advisors, after the process described in this Annex has been followed.

#### **MANAGEMENT OF SHARED GROUND WATER**

4. Management of shared ground water will continue to be carried out by the institution already managing it before the Agreement was signed.
- 4a: In cases where a well is currently managed as communal water by a local institution, it will remain managed by that institution. The institution will retain residual competence, honoring the responsibilities specified within this Annex and benefiting from the quality protection remediation mechanisms specified in this Annex concerning negative impacts on the flow or on water quality caused by a third party whether because of abstraction elsewhere, urbanization elsewhere, or any other factor. As well, the local institution will be responsible for ensuring that any water it delivers will be of a quality appropriate to the end use, and, above all, potable quality when supplied for that purpose.
- 4b: In cases where a well is already managed centrally as public water by a national authority, it will remain managed by that national institution which will retain residual competence, honoring the responsibilities specified within this Annex and benefiting from the water quality protection and remediation mechanisms specified in this Annex concerning negative impacts on the flow or water quality caused by a third party whether because of abstraction elsewhere, urbanization elsewhere, or any other factor. As well, the local institution will be responsible for ensuring that any water it delivers will be of a quality appropriate to the end use, and, above all, potable quality when supplied for that purpose.
- 4c: Each institution with residual competence concerning a well will share with appropriate national agencies and bodies working on shared management under the Agreement the information it has on the quality of its water according to the protocols used by the authorities of the two Parties.
- 4d: Each institution with residual competence concerning a well will allow the experts of any appropriate national agencies, whether Israeli or Palestinian, and of bodies working on shared management under the Agreement to take a sample of its water in order to analyze its quality within its own laboratories.
- 4e: Each institution with residual competence concerning a well will be able to refer the matter to the Water Mediation Board (described in this Annex) if it considers a development carried out by a third party is altering its water flow or water quality in a negative manner. Equally, each such institution can be brought before the Water Mediation Board if some other institution considers that the former is adversely affecting its water quality or its water flow rates.
- 4f: Each institution with residual competence concerning a well will decide independently on the new forms of allocation of its water if it is faced with a reduced flow because of an external development that is approved by appropriate national agencies or bodies created under the Agreement, including but not limited to the Water Mediation Board after the process described in this Annex has been followed.

- 4g: Each institution with residual competence for a well will be responsible for reaching the water quality targets and the ecosystem protection required by the Senior Science Advisors, after the process described in this Annex has been followed.

### **MANAGEMENT OF WASTE WATER FLOWING INTO SHARED WATER**

5. The Parties recognize that inadequately treated sewage (which, for the purposes of this document should be read to include untreated sewage) and industrial waste water are among the greatest environmental problem affecting shared water.
- 5a: Each Party will assess, on the basis of previous studies and, if necessary, new studies, the extent to which inadequately treated municipal and industrial sewage, which is currently deposited into any shared watercourse or onto any surface, is likely to contaminate shared ground water. The Parties will exchange information to allow this assessment as necessary. Within one year of the signing of this Agreement, each Party will then classify every case of disposal of inadequately treated waste water into one of three categories:
- (1) Cases where the waste water contaminates surface or ground water and requires tertiary treatment to prevent the contamination.
  - (2) Cases where the waste water contaminates surface or ground water and requires secondary treatment to prevent the contamination.
  - (3) Cases where the natural succession of ponds and swamps effectively cleans the waste water before it reaches surface water or ground water.
- 5b: Each Party will assess the most cost-efficient manner of treating cases belonging to Category (1) and will abide by the subsidiary principle to achieve the required level of treatment within five years.
- 5c: Each Party will assess the most cost-efficient manner of treating cases belonging to Category (2) and will abide by the subsidiary principle to achieve the required level of treatment within ten years.
- 5d: Each Party will protect immediately the natural space that provides treatment for every case belonging to Category (3).
- 5e: Where existing agreements for treating waste water apply, the Parties will review their effectiveness on the basis of the criteria above.
- 5f: The Parties will also undertake literature reviews, supplementary analyses as necessary, and monitoring to determine if desalination of wastewater is necessary to protect aquifers, soil structure, or other water uses, and, if so, at what locations.
- 5g: Both Parties agree to build on existing surveys of contamination from household latrines, cesspits, and other simple sanitation systems throughout their respective territories, and to institute environmentally appropriate remedial measures when the contamination constitutes a significant threat to surface or ground water, where “significant” is defined as the probability of causing

illness or loss of aquifer capacity under conditions likely more often than once in ten years. The costs for upgrading will be paid by the Party in which the inadequate system is found. Monitoring will be established to ensure that upgraded systems do not revert to their former inadequate state and procedures may be established to place responsibility on owners of such facilities for appropriate operation and maintenance.

- 5h: A common draft urban sewage by-law for Israel and for Palestine will be designed by an ad hoc committee of the Senior Science Advisors to design institutions to block the disposal of materials of any kind into sewage systems connected to treatment systems that cannot effectively remove or treat those materials. Upon receipt of a mutually acceptable draft by-law, BWC will present it for approval to the relevant ministries in each Israel and Palestine. Each Party shall then have one year to approve the new by-law and establish a schedule for its implementation. Such a schedule may allow time for application to existing sewers but will apply immediately to any new sewers. Because the land and water of the two Parties are so closely connected, both states must accept the by-law within a reasonable period of time, but the schedules for implementation may differ.
- 5i: Any institution responsible for discharge of waste water that flows into shared water will be bound by the responsibilities concerning water quality specified within this Annex and by the prevailing laws of the jurisdiction(s) where it operates.

## **BILATERAL MANAGEMENT FOR SHARED WATER**

Bilateral (joint) water management bodies for shared water are described in Clauses 6, 7, 8 and 9. Clause 6 is reserved for the Bilateral Water Commission, which is the main new body to be created. Clause 7 presents the several bodies that will report to the Bilateral Water Commission, and Clauses 8 and 9 are reserved for two additional bodies that will exist in parallel with the Bilateral Water Commission.

6. **Bilateral Water Commission (BWC):** A Bilateral Water Commission shall be created and will replace the existing Joint Water Committee. The functions and competences of the BWC are restricted to those described in this Annex. In particular, residual competence generally lies elsewhere than with the BWC except that it does have final authority to accept or reject (but not to adjust or modify) decisions from the Water Mediation Board (described below). When it chooses to reject a decision from the Water Mediation Board, it must explain the reason for its rejection. The Water Mediation Board will then re-examine its decision in light of this explanation and propose a new decision to the BWC. The BWC cannot make a decision that replaces that of the Water Mediation Board.
- 6a: The BWC shall be comprised of seven members: three selected by the governments of each Party, plus one member elected by the other six from any state other than Israel and Palestine. Members may be employees on secondment from ministries in their respective governments. Each member will serve for three years, with terms beginning with the date of selection in the case of national members, and with election in the case of the external membership. Members may serve for two consecutive terms, but, after serving two terms, must then leave the BWC for at least one 3-year term. A member of the BWC is not allowed to combine this mandate with that of serving as a member in any of the other joint management bodies described in this Annex, with the exception of the Mountain Aquifer Authority and the Coastal Wadi Authority. If a member fulfills a second post, s(he) will still receive only one salary.

- 6b: Decisions of the BWC will be made by majority rule provided that at least two members from the three selected by each Party must be in favour of any decision.
- 6c: The mandate of the BWC will include the authority for several critical functions with respect to shared water:
- 6c(i): It will establish limits for withdrawals, standards for treatment and targets for releases of water from the aquifer on the basis of the recommendations set by the Senior Science Advisors, described in 7c. If the Authority rejects these recommendations, it cannot issue its own. It must explain its rejection to the Senior Science Advisors and wait for new recommendations. In the advent that the Authority rejects the recommendations of the Senior Science Advisors after two revisions, it can refer the matter to the Water Mediation Board but in no case can it issue its own decisions concerning the scientific soundness of these limits and standards. Its responsibility is solely to establish these limits and standards and to ensure that they are implemented.
  - 6c(ii): It will grant permits for new drilling projects in the Mountain Aquifer on the basis of the recommendations set by the Senior Science Advisors. If the Authority rejects these recommendations, it cannot issue its own. It must explain its rejection to the Senior Science Advisors and wait for new recommendations. In the advent that the Authority rejects the recommendations of the Senior Science Advisors after two revisions, it can refer the matter to the Water Mediation Board but in no case can it issue its own decisions concerning the scientific soundness of new drilling projects. Its responsibility is solely to grant these permits and to ensure that they are implemented.
  - 6c(iii): Institute investigations when requested by any institution managing water and subject to its general authority.
  - 6c(iv): Ensure due process is followed when negotiating a solution among the institutions involved once the investigation is completed.
7. The BWC will create, within two years of the coming into force of this Agreement two authorities, one for those coastal wadis that cross a border between Israel and Palestine and one for the Mountain Aquifer, as well as an Office of Scientific Advisors.
- 7a: **Coastal Wadis Committee:** Coastal wadis are so variable in their flow rates, and so altered from their original states that no general allocation rules can be set in advance. If created by the BWC, the Coastal Wadis Committee will have the responsibility to recommend appropriate management strategies and measures for each of the small ephemeral rivers that, for the most part, originate in Palestinian territory and then flow to the sea through Israeli territory. One crosses the Palestinian border a second time and reaches the Sea through The Gaza Strip. The Committee will seek to ensure equitable, efficient and sustainable water management systems in the coastal rivers and other short river courses.
- 7a(i): In its initial design, the Coastal Wadis Committee will be similar to but scaled down from the Bilateral Water Commission. It will consist of two members, one selected by the governments of each Party. Members may be employees on secondment from ministries in their respective governments. A member of the Coastal Wadis Committee is not allowed to combine this mandate with that of serving as a member in any of the other

joint management bodies described in this Annex, with the exception of the Mountain Aquifer Authority and the Bilateral Water Commission. If a member fulfills a second post, s(he) will still receive only one salary.

7a(ii): The main task is to establish a recommended general management plan at the basin level and to adapt that plan for wadis whenever its assistance is requested by other institutions. In addition, it will suggest the level and type of management appropriate to the specific plan for the watershed.

7a(iii): River management bodies may be formed by the BWC if this seems likely to improve management efficiency, public participation or otherwise promote the principles specified for water in this Agreement. In no case could such a cross-border river management authority be attributed residual competence. Its responsibilities will limit themselves to those spelled out either by the text in this Annex or by the BWC after public hearings have been held including all of the local institutions active in water management within that river basin.

7a(iv): After three years of operation, the Coastal Wadis Committee will be evaluated in order to determine whether it has completed its task or should be given another three-year mandate. If the BWC decides to extend its mandate, a final design for the Authority will also be prepared and approved by the BWC.

7b: **Mountain Aquifer Authority:** The Mountain Aquifer Authority will represent the BWC for the western and northeastern blocks of the Mountain Aquifer and provide advice for the eastern block. The basic goals of the Authority will be to protect the aquifer from excessive withdrawals and from pollution – in effect, serving in the role of the BWC for the same four key functions, as specified above in 6a(iii), but with particular attention to the integrity of the aquifer. In addition, the Mountain Aquifer Authority will work cooperatively with national agencies in the two governments to limit flows of polluted surface water or of inadequately treated effluents into the aquifer. All of these priorities shall be accomplished prior to secondary priorities for promoting local and national economic development. However, nothing in what follows is intended to preclude step-by-step implementation of the Authority.

7b(i): With the following modification, allocation of water in the Mountain Aquifer will remain in the first three years after this Agreement comes into force as specified in Article 40, Annex III, of the Interim Agreement: Should the renewable flow of the eastern block of the Mountain Aquifer prove to be less than that currently estimated, the deficit in the 70 to 80 Mcm required by the Palestinians of the West Bank in the short term (as specified in Clause 6, Article 40: “Both sides have agreed that the future needs of the Palestinians in the West Bank are estimated to be between 70 - 80 Mcm/year.”) will be replaced by additional water from either the western or the north-eastern block, presumably by continuation of current Mekorot deliveries. This is an interim measure to be respected until the joint management is fully in place, within three years of signature of this agreement.

7b(ii): The basic design of the Mountain Aquifer Authority will initially be similar to, but scaled down from, that of the Bilateral Water Commission. The Authority will be comprised of five members, two selected by the governments of each Party, plus one member elected by the other two from any state other than Israel and Palestine. Members may be

employees on secondment from ministries in their respective governments. Each member will serve for three years, with terms beginning with the date of selection in the case of national members, and with election in the case of the external membership. Members may serve for two consecutive terms, but, after serving two terms, must then leave the Authority for at least one 3-year term. A member of the Authority is not allowed to combine this mandate with that of serving as a member in any of the other joint management bodies described in this Annex, with the exception of the Bilateral Water Commission and the Coastal Wadi Authority. If a member fulfills a second post, s(he) will still receive only one salary.

7b(iii): The final design for the Mountain Aquifer Authority and its annual budget will be subject to review and approval by BWC, as will any substantive change in its mandate or structure.

7b(iv): Five years after the Mountain Aquifer Authority has been established, an evaluation shall be made by independent analysts under the authority of the BWC. The purpose of the evaluation is not a financial audit but effectiveness in achieving goals.

7c: **Office of the Scientific Advisors:** The Office of the Scientific Advisors will be set up as part of the BWC within six months of the conclusion of this Agreement. Its key staff will consist of two “Senior Science Advisors,” one each seconded from appropriate agencies in their respective governments. Neither of the Senior Science Advisors may simultaneously serve as a member of the BWC, the Water Mediation Board or the Local Water Management Board. Their office will have the responsibility for reporting to the BWC on relevant issues related to water quality and water quantity and of recommending appropriate abstraction licenses and drilling limitations to the BWC. The BWC will accept or reject these recommendations. If it rejects them, it will explain the rejection. The Senior Science Advisors will then review its recommendations in light of these motivations and issue another recommendation. The Senior Science Advisors and the BWC may choose to refer the matter to the Water Mediation Board if the recommendations issued by the Senior Science Advisors have not been accepted by the BWC after two revisions.

7c(i): In addition to the other roles, the two Senior Science Advisors will be expected to have access to and to provide the BWC with commentary on three broad sorts of information on shared water: Water quantity data (including mapping), water quality data, and ecological limits on water withdrawals and wastewater disposal. The Advisors will maintain regular access to the databases of the two Parties, and of their electronically accessible library on all shared watercourses, using protocols for data collection, management and display prepared by EXACT.

7c(ii): The purpose of the water quantity and water quality data and related information is to permit the two Senior Science Advisors to monitor all dimensions of ongoing and prospective use of shared water from withdrawal to release. Their role is not to maintain an independent database but to ensure accessibility of the databases maintained by the two Parties. As requested they will make reports to the BWC and to other bodies created under this Agreement.

7c(iii): The purpose of the information on ecological limits is somewhat different from that for water quantity and water quality. The Senior Scientific Advisors will have responsibility

for monitoring the establishment of the ecological “red lines” that define the minimum flow volumes and minimum quality standards that are required to maintain the ecological health of watersheds carrying shared water, and for reporting to BWC on the preservation of aquatic ecology by these means. Responsibility for choosing appropriate models and for establishing red lines, flow regimes and other aspects of aquatic ecological protection will remain with the two Parties.

7c(iv): After official review of red lines and of flow regimes, BWC shall adjust previous determinations for acceptable water withdrawals and release. Where existing quotas for withdrawal already exceed in average rainfall years, or where water quality is impaired by existing quota levels, a schedule for gradual retirement or adjustment of quotas with appropriate compensation shall be negotiated with those holding such quotas. If the BWC rejects the recommendations of the Senior Science Advisors, it will explain the reasons for its rejection. Interim changes, as with withdrawals that temporarily exceed red lines, shall be permitted on the basis of an explicit agreement. All withdrawal limits and of appropriate flow regimes for shared water will be made public by the BWC.

7c(v): Any community, local water institution, or nongovernmental organization may protest excessive or inadequate limitations on water withdrawals or flow regimes to the Water Mediation Board. In such cases, the WMB will follow its normal procedures, as explained in Clause 8, prior to reaching a decision.

7c(vi): The roles of the Senior Scientific Advisors and of the BWC with respect to water quality and to aquatic ecology are intended to supplement, but not to alter or amend, those in the Final Status Agreement between the Parties with respect to Environmental Cooperation. Should any clause here appear to contradict a clause in the Agreement on Environmental Cooperation, it shall be the latter that has standing.

8. **The Water Mediation Board (WMB)** will be created within six months of the coming into force of this Agreement. It will investigate any grievance brought up by any institution against a decision of the BWC that affects shared water, or against any project or activity carried out by an institution pertaining to the other Party. An individual is not empowered to bring a case to the Water Mediation Board.

8a: The Water Mediation Board will be constituted by two Israeli members and two Palestinian members each nominated by their respective ministries of justice, one member elected by the members of the Local Water Board, described in 9, by majority vote. All members may be employees on secondment from their respective ministries. A member of the WMB may not combine this mandate with a simultaneous mandate as a member either of the BWC, the Senior Science Advisors or the Local Water Board.

8b: The Water Mediation Board will have the following responsibilities:

8b(i): It will receive the complaints of any community or institution that deems it is being negatively affected by either a planned water project, or an ongoing practice within another community or institution – including cases when these practices, such as urban planning – are not directly linked with water management. It will also receive complaints related to inequitable distribution of water or to inadequate water quality.

- 8b(ii): It will approach the parties implicated by the entity bringing up the complaint in order to hear their case, and will attempt a conciliation process between these parties.
- 8b(iii): In cases when either the conciliation process fails or the impact alleged by the entity bringing up the complaint is not proved to be attributable to the entity or entities incriminated, the Water Mediation Board will be responsible for investigating the complaint independently.
- 8b(iv): Should arbitration or negotiation be required to resolve disputes, the Water Mediation Board will be asked to identify experts with recognition of the need for both technical and cultural knowledge in order to make recommendations. Its investigations will include economic and other social science analyses to consider the incommensurable losses as well as the commensurable losses that any institution claims to suffer.
- 8c: The WMB shall maintain a roster of experts from which it can choose in order to carry out an investigation in the matter. The expert (or in complex cases, experts) shall listen to all parties involved, study the social, economic, environmental context of the grievance, and provide the Committee with a recommendation, which shall be made public. The Water Mediation Board is free to accept, reject the recommendation or to modify it. Its recommendations will then be considered final unless a specific objection is raised by BWC within six months of the publication. In that case, the WMB will consider BWC objections and issue a final decision within the next 6 months including an explanation for its acceptance or rejection of the BWC's objection.
- 8d: Open forums or public hearings may be held, and various dispute resolution options tried, including final position statements. Records shall be kept and published of all public hearings, and all recommendations to and from the Water Mediation Board shall be public.
- 8e: The final decision of the Water Mediation Board will be implemented in a binding fashion. If the decision requires reduced rates of withdrawals from Israeli or Palestinian wells, the reduction may be imposed gradually but shall be completed within one year from the date of the decision. As necessary, BWC will confer with those ministries or authorities outside the water sector that have competence and authority in such areas as urban planning to determine how best to implement decisions on, for example, land use or urban development.
9. The **Local Water Management Board** will be created within six months of the coming into force of this Agreement. It will identify and register all bodies that manage shared water resources locally and distribute the water to a collectivity. The criterion used for this identification will be the existence of "rules-in-use" locally.
- 9a: The Local Water Board will be comprised of four members. Two members from Palestine will be selected by the Palestinian Ministry of Local Governments. Two members from Israel will be selected by the Israeli Ministry of Social Affairs. All members may be employees on secondment from their respective ministries. The members of the Local Water Board may not serve simultaneously as members of other management bodies described in this Annex.
- 9b: Whenever a complaint about inequitable distribution of water from such bodies, or about adverse environmental hydrological effects from their operations, is brought to the Water Mediation Board, the Local Water Management Board will, as requested, assist the experts of the Water

Mediation Board to identify the institutions responsible for management of the water sources in question, and it will ensure that the issue involves shared water. It will also ensure that these institutions are fully consulted within any investigation under the auspices of the Water Mediation Board. It will further ensure that the conclusions and recommendations reached by the Water Mediation Board and BWC are communicated to them. When these conclusions involve a change affecting these institutions, such as a reduction in extraction flow, for example, the Local Water Board will negotiate with these institutions to develop a time schedule for implementing changes, and also a form of compensation. Such compensation should not necessarily involve money but rather should preferably aim to develop mechanisms whereby the negative consequences of these changes will be mitigated as much as possible.

- 9c: Within three years of existence of the Local Water Board, the registered local management bodies will each be given one vote and the members of the Local Water Board will be elected at majority vote by the representatives of these bodies. Any member of the registered bodies will be allowed to run for this position. Their mandate will last three years and will not be renewable. They will endeavour to develop full self-financing of the work of the Local Water Board from the fees paid by the registered bodies.

#### **DEMAND MANAGEMENT OF SHARED WATER**

10. Israel and Palestine recognize that the natural shortage of water in the region compared with demands to use water for productive, cultural, sanitary, recreational and other purposes, are such that their mutual protection and stability require common if not joint provisions for promoting and, where necessary, requiring higher levels of efficiency for all uses of water. Most of the specific clauses to follow fall within the competence of the respective governments. They are nevertheless listed here in order to emphasize the importance of parallel activity by both Parties.
- 10a: The quantity of all shared water withdrawn for human use shall be measured at the point of withdrawal, and for all uses exceeding 100 cubic meters per day also at points of use and, for point sources, at the point of disposal. Records shall be kept in electronic format so as to permit determination of water use rates for each home, building, farm, industrial plant, etc., as well as for quantitatively or qualitatively significant processes or operations within those establishments. Notwithstanding these objectives, authorities from each Party may set the extent of collection and the frequency of measurement, as well as the conditions under which sampling is equally as effective as full collection of data. Formats for storage and presentation of water-use data used by each Party will be compatible with those of the other Party, and to the extent possible will be those established by EXACT. The data will be made available on request to the Senior Science Advisors of the Bilateral Water Commission.
- 10b: No request for additional shared water from any municipality, region, institution, farm, or factory will be considered unless it is accompanied by documentation to show that existing water is efficiently used. Efficiency may be defined differently for different uses of water, but, for any use, the definition shall be consistent. The default definition of efficiency shall be the physical volume of water used to accomplish a given task, with “task” expressed in monetary units whenever possible.
- 10c: The general rule shall be that shared water delivered from a governmental agency for residential, commercial, institutional and industrial uses will be priced at no less than the full cost of withdrawal, delivery and disposal, including an allowance for amortization of capital cost and

another for withdrawal fees to reflect the shadow price of water. Water for residential and commercial users may, alternatively, be priced at the marginal cost of desalinated water, expressed as the cost per unit of the next desalination plant (including return of and return on capital) plus delivery costs. Except as specified in sub-clause (i) below, an element of profit, as that term is conventionally understood, may be included in water price at the discretion of the agency.

10c(i): An exception to this rule may be made to ensure that every family has at least the minimum household requirement as defined in the Introductory Notes or by one of the other of the two Parties. This exception is not intended to imply that water for low-income families should be free but rather that it needs not be so expensive as that provided for higher income families. (The cost to either Party of subsidized water provided to low-income families can be easily recouped by use of increasing block prices for higher income families, which is the recommended pricing pattern.) Nor is it intended to imply the need for construction of pipelines to remote locations where alternative means of service delivery would be cheaper and equally satisfactory. The costs of the subsidy shall be borne by each Party for residents in its territory.

10c(ii): Nothing in these provisions is intended to preclude the option to have different prices for water of different qualities.

10c(iv): The general rule does not apply to water supplied for agricultural or pastoral purposes, which is dealt with below.

10d: The Parties can create water management and water delivery utilities as they wish. However, those utilities must observe high standards of water efficiency including leak and theft reduction, pricing self-use of water, and full capital cost recovery. Total unaccounted for water should never exceed 20% with a goal to keep it below 10%. Where the unaccounted for water is higher than 20%, remedial plans will be developed and implemented as soon as possible at the cost of the utility. Leakage rates above 20% shall not be included in defining “needs” for water in any community or other institution.

10e: The water utilities will be encouraged to price retail deliveries of water in ways that will ensure the minimum household requirements for water are available at low cost to all residents (commonly called a “social tariff”). This pricing structure will avoid extending any such subsidy to higher income residents. It will also seek to minimize conflicts between greater end-use efficiency by their clients and the financial viability of the utility.

10f: All such utilities will deal with both clean water distribution and wastewater collection and treatment.

## **SHARED AGRICULTURAL WATER**

11: The Parties recognize that the shortage of water is such that neither economy can be significantly based on agriculture, but they also recognize that agriculture plays vital roles in providing open space, in absorbing labour, in national defense, and in serving as a reserve sector from which water can be drawn in years of drought. Both Israel and Palestine will start phasing out the use of fresh

water delivered from central agencies for irrigation and replacing it with reclaimed waste water or rainwater harvesting.

- 11a: Within five years, Israel will reduce by 80% any fresh water that is used for irrigating crops in the year that the Agreement comes into force. Farms that are located beyond the reach of reclaimed wastewater can apply for a fresh water permit, but such applications must show that the water can be withdrawn without significant ecological damage and that there are no economically feasible farming methods available for use of less water or lower quality water..
- 11b: As little centrally delivered water is currently used for irrigation in Palestine, that Party agrees to restrict severely any subsequent use of potable water supplied for this purpose and to ensure that no more than 10% of any supply is used for irrigation. It further agrees to work with local water institutions to reduce gradually the volume of potable water they allocate to irrigation. Water collected from small springs and shallow wells shall not be included in these restrictions, where “small” is defined as less than 100 cubic metres of flow per day (on the largest flow day of the year) and “shallow” is defined as accessed mainly or exclusively by digging rather than drilling.
- 11c: The Parties will maintain appropriate standards in the use of reclaimed waste water for irrigation so as to protect both farm workers and consumers of the produce from adverse health effects. They shall also adopt best-available practice to prevent flow of agricultural wastewater into surface water or ground water.
- 11d: The Senior Science Advisors will initiate a literature review and, if appropriate, distribute information on the long-term effects on agricultural soils of repeated application of reclaimed wastewater.
- 11e: The Parties recognize that in most cases farmers do not pay the full costs of irrigation water delivered from central agencies, and that price paid for irrigation water will gradually have to climb to reduce the current level of subsidy. During the five years after the coming into force of this Agreement, Israel will raise the price of water sold to farmers by central agencies, whether for irrigation or for animal husbandry, either to a level that covers all operating and maintenance costs or to a level that is 60% of the average Mekorot retail price, whichever is higher. Palestine agrees that any future volumes of centrally delivered water for farmers, whether for irrigation or for animal husbandry, will be priced at a level that covers all operating and maintenance costs plus 10% as an allowance for capital cost recovery.
- 11f: Within five years of the coming into force of this Agreement, an ad hoc committee will be created by the Bilateral Water Commission to determine whether irrigation water prices should be raised further, with an effort to balance the shortage of water in the region with the benefits of farming along with recognition that nowhere in the world do farmers pay the full costs of irrigation water delivered to them by a central agency.

## **CONTINGENCY PLANNING**

12. Because the Middle East is subject to wide variations in weather patterns from year to year and within any one year, and because, as a possible result of climate change, both short periods of intense rainfall and longer periods of drought are likely to become more common, cooperation is required to

mitigate the effects of climate. Such cooperation is also required because, even in well-managed systems, spills and breaks will occur that require emergency actions.

12a: The BWC will therefore negotiate a protocol for joint action in the emergency and stabilization phases of response will be negotiated by the BWC in the first year after this Agreement comes into force. Among other things, Parties agree to cooperate in the following ways in the management of shared water:

12a(i): In the event of an accident, break, leak to any water plant, conveyance system or storage system, regardless of whether caused by human error or natural cause, notice will immediately be passed from the region where the accident occurred to all downstream and downflow authorities.

12a(ii): If toxic contaminants or substances injurious to human health are contained, specific quality information shall also be passed to the downstream and downflow authorities.

12b: The BWC will also negotiate a protocol for joint action and related activities in the recovery and rehabilitation phases of response within two years after this Agreement comes into force. Such plans will take into account the need for protection of aquatic ecosystems and seek to ensure sustainable development of water resources, particularly if previous patterns of water development and water use had failed to meet these goals.

12c: Where appropriate, the protocols to be developed under 11a and 11b shall seek to involve other riparian states in the Jordan River basin.

12d: In the event of a flood resulting from natural perturbations in weather patterns, the same procedures will be followed. Appropriate procedures may be identical to those defined in 11a and 11b above, and, if so, a common protocol may be developed by the BWC.

12e: In all contingency planning, first priority will go to ensuring adequate water for Minimum Household Requirements. Lower priority uses for water can be established by the Parties as they prefer.

### **ADDITIONAL SUPPLY AND STORAGE**

13. The Parties agree to undertake a number of areas of joint activity in order to increase the supply of water available to their respective states, and to reduce losses or degradation of water in delivery and storage. Though timing for these activities will be set at the convenience of appropriate officials in the governments and in other institutions of the two Parties, the activities are listed in approximate order of priority. In furtherance of these activities, the BWC may decide to create a position of Senior Research Officer.

13a: Local Greywater Recycling: Both Parties will form a joint project to increase greywater recycling in both urban and rural areas. The main use in rural and peri-urban areas will be for irrigation and in urban areas for non-potable water use in and around buildings. The project will not have its own research capacity but will seek to identify the best available practices, to distribute information to the relevant publics about those practices, and to recommend to appropriate governmental bodies various ways to promote greater use of grey water, including but not limited to financial subsidies.

13b: Use of Saline Water: Within five years from the coming into force of this Agreement, all saline springs and other brackish flows will be mapped by the Senior Science Advisors and feasibility assessments made for their desalination. Both countries shall cooperate to ensure that the resulting brine will not be disposed in ways that will contaminate higher quality water resources anywhere in their territories. Desalinated water produced from saline water will be added to that in the nearest water course, and its allocation defined by the systems appropriate to that water course.

13c: Rainwater Harvesting - Rural Areas: The two Parties will form a joint project to maximize the use of rainwater harvesting from roofs to provide household water and from fields to reduce the need for additional irrigation. The project will not have its own research capacity but will seek to identify the best available practices, to distribute information to the relevant publics about those practices, and to recommend to appropriate governmental bodies various ways to promote greater use of rainwater harvesting, including but not limited to financial subsidies.

13d: Rainwater Harvesting - Urban Areas: The two Parties will form a joint project to maximize the use of rooftop rainwater harvesting to supply residences, commercial and institutional buildings, and industry with water suitable for non-potable uses. The project will not have its own research capacity but will seek to identify the best available practices, to distribute information to the relevant publics about those practices, and to recommend to appropriate governmental bodies various ways to promote greater use of rainwater harvesting, including but not limited to financial subsidies. In addition, the project will also work to minimize storm runoff, particularly peak runoff, and to identify ways to use runoff locally in ecologically appropriate ways rather than collecting and transferring storm water through pipes to treatment plants.

13e: Storage facilities: Though both Parties recognize that storage open to the air in a semi-arid environment entails large losses to evaporation, storage is in some cases a viable option to adjust the timing of downstream flows. They therefore agree to investigate jointly the possibility for the creation of additional storage capacity.

13e(i): They further agree that any such reservoir will inevitably affect flows across State boundaries, and that therefore all new storage reservoirs must be agreed upon mutually.

13e(ii): They further agree that all new reservoirs will be designed in ways that reduce evaporative losses to the minimum economically feasible.

## **OPERATIONS AND MAINTENANCE**

14. The following provisions will apply to the operations and maintenance requirements for infrastructure related to water shared by the two Parties.

14a: Operation and maintenance of current or future systems on Israeli territory that supply Palestine with water, and their electricity supply, shall be Israel's responsibility. Operation and maintenance of current or future systems on Palestinian territory that supply Israel with water, and their electricity supply, shall be Palestine's responsibility.

14b: Palestine and Israel will guarantee easy unhindered access of officials and equipment to such systems for operation and maintenance. This subject will be further detailed in the agreements to be signed between Israel or Palestine and, as appropriate with other riparian states in the Jordan River basin.

### **PRIOR NOTIFICATION**

15: Each country undertakes to notify the other, six months ahead of time, of any proposed new project or any expansions in scale of an existing projects by more than 20%, or a second expansion in scale of any size when that change is likely to change the quantity or quality of flow of any shared water. The project or expansion will be discussed by appropriate authorities in the respective governments with the aim of preventing harm and mitigating adverse impacts. The results of this investigation shall be reported to BWC and made public.

15a: If, after assessment, BWC determines that there is a significant probability of damage to water quantities or water quality from a new or expanded project, the BWC shall decline to issue any document for approval. It will further bring its negative decision to the attention of ministerial level officials in each Israel and Palestine for ultimate resolution.

15b: Affected communities or stakeholders are entitled to request a hearing from the Water Mediation Board. The Water Mediation Board must then initiate a process, including open forums, for defining scientifically the likelihood and the extent of damage, and it will then publish its final recommendation to BWC. The recommendation of the Water Management Board is binding to the BWC.

16: Artificial changes in or of the course of any shared water can only be made by mutual agreement.

**(end of Annex)**