

# Dangerous Untreated West Bank Wastewater

By [Stephen Lendman](#)

Global Research, July 22, 2009

22 July 2009

Theme: [Environment](#)

In-depth Report: [PALESTINE](#)

B'Tselem is the Jerusalem-based independent Israeli Information Center for Human Rights in the Occupied Territories (OPT) with a well-deserved reputation for accuracy and integrity. It was founded in 1989 to “document and educate the Israeli public, policymakers (and concerned people everywhere) about human rights violations in the OPT, combat the phenomenon of denial prevalent among the Israeli public (and elsewhere, especially among Jews), and create a human rights culture in Israel” to convince government officials to respect human rights and comply with international law.

It conducts wide-ranging, carefully researched, and thoroughly cross-checked reports, most recently its June one titled, “Foul Play: Neglect of wastewater treatment in the West Bank.” This article discusses its findings as further evidence of how Israel violates international humanitarian law as an occupying power. Because no global authority holds it accountable, over 2.8 million West Bank Palestinians suffer along with another 1.5 million under siege in Gaza for over two years and counting.

## Introduction

Human activity produces wastewater for which treatment is essential “to prevent and reduce sanitation and environmental hazards” that otherwise would result – from dangerous viruses, bacteria, parasites, heavy metals, and other toxic substances that pollute water, farm crops, flora, and fauna, and reduce land fertility.

Israeli West Bank and Jerusalem settlements produce about 91 million cubic meters of wastewater annually, more than double the amount from Palestinian communities. Yet most of it goes untreated. As an occupying power, international humanitarian law requires it be done, yet Israel violates its obligations across the board making Palestinians suffer grievously as a result.

## Wastewater from Settlements and Jerusalem

Israel’s Civil Administration environmental protection staff officer, Benny Elbaz, told B’Tselem that (other than outpost wastewater) all of it from settlements gets “adequate” treatment, and raw effluent isn’t allowed to flow freely.

However, an August 2008 study refutes his assertion. Jointly conducted by the Nature and Parks Authority Environment Unit, the Ministry of Environmental Protection’s Water and Streams Department, and the Civil Administration, it showed that in 2007, only 81 of 121 West Bank settlements were connected to wastewater treatment facilities. Also, over half of treatment plants (38 of 74) are small facilities able to service only a few hundred families, way short of what’s needed.

In addition, to operate properly, plants need “round-the-clock maintenance,” but because the per-capita cost is high, “maintenance of most of the facilities is defective.” They experience frequent problems, sometimes shut down entirely, and can’t handle the volume channeled to them. As a result, “raw wastewater from settlements floods West Bank valleys,” Israel’s disclaimer notwithstanding.

In large settlements, built in the 1970s and 1980s, no wastewater is treated or facilities in place “have been neglected for decades.” Among them are:

- Kirat Arba, founded in 1972; its wastewater flows into the Hebron stream that runs into Israel;
- Ofra, founded in 1975; its sewage flows into the Mountain Aquifer and pollutes groundwater; in 2008, Israel began constructing a settlement treatment plant, but it’s being built on Palestinian land without Civil Administration approval;
- Kfar Adumim, founded in 1979; instead of being treated, its wastewater is disposed of in cesspits cut into the ground for effluent disposal; from there, it pollutes land and groundwater; and
- Bat Ayin, founded in 1989; it has a partial collection system, and residents dispose of their wastewater in cesspits.

Other settlements, like those below, experience frequent breakdowns that shut facilities for extended periods:

- Ariel’s treatment plant was defective for a decade, then shut down in 2008; thereafter wastewater flowed into the Shilo stream, a major Yarkon River tributary;
- Elqana’s treatment plant stopped operating; its wastewater flows into the Rava stream, another Yarkon tributary; renovation funding was allocated to make it operable by the end of 2009;
- Qedumim’s two treatment plants ceased functioning in 2007; its wastewater flows into the Abu Jamus stream; in March 2008, one plant resumed operations;
- Beit Ariyeh’s plant stopped functioning in 2008; its effluent flowed into the Shilo stream until renovations let it resume operations in January 2009;
- Qedar, Ma’aleh Amos, Nokdim, Otni’el, Etz Ephraim, and Enav settlements dispose of their wastewater in septic tanks, “from which it seeps into the groundwater and pollutes it;” and
- 25 Jordan Valley settlements’ wastewater is only partially treated in sedimentation basins and oxidation ponds, an outdated method not used inside Israel.

Overall, Israeli and independent studies show that settlements’ wastewater treatment inadequacies are long-standing and serious – confirmed by the Ministry of Environmental Protection saying that many settlements “do not have a proper solution to wastewater.” According to Yael Mason, the Industrial Wastewater and Polluted Lands Department director, some settlement plants “do not meet requisite standards and pollute both the Mountain Aquifer and streams.”

Conditions were as bad in 1998 when a Municipal Environmental Association of Judea survey found half the plants (where over 40,000 settlers lived), polluted the environment “to a great or moderate extent,” and only 13 plants (for 16,000 people) performed “to a reasonable extent.”

A 2002 Municipal Environmental Association of Samaria report (responsible for 100 settlements,) showed 14 left their wastewater untreated. Eleven others either didn’t treat it or only partially did for 25 years until the Kana stream conduit was completed in 2006.

Other reports document the same neglect, citing defective maintenance, no electrical connection, raw sewage seepage into groundwater, “usually primitive” factory wastewater treatment, and pollution caused by “cow pens.”

For over 40 years of occupation, “Israel has not built advanced regional wastewater treatment plants in the settlements to match those inside Israel” even though a 1983 master plan was formulated. After its cost was estimated to be \$110 million, budgetary constraints stopped its implementation. The single recent facility addition began operating in 2006, servicing six settlements.

Under still in force Jordanian West Bank building and planning laws, provisions for treatment must be approved before proceeding. However, Israeli authorities ignore the requirement and allow building occupancies and industrial operations anyway. The Modi’in Illit settlement was approved even though raw sewage from 17,000 people flowed into the Modi’im stream, and construction was never completed for a Meitarim industrial area treatment plant.

Blurred authority between the Civil Administration and Ministry of Environmental Protection complicates the problem. The former ensures that building plans include treatment solutions, but enforcement power lies with the latter. From 2000 – September 2008, it was used only 53 times for not treating wastewater. Most were warnings. Only four indictments were filed. By comparison, in 2006 alone, 230 enforcement measures were taken inside Israel, mostly warnings on suspected Water Law violations. In Israel, building plans are stopped until proper hook-up to wastewater treatment is in place. “Across the Green Line,” no similar action is taken.

### Jerusalem’s Wastewater Channeled East

Since the 1940s, untreated wastewater has been channeled from West and East Jerusalem to the Kidron Basin in the city’s southeast. It flows into an open duct from where it moves over 30 kilometers into the Dead Sea.

A Horqaniya Valley diversion facility treats some of it for Jordan Valley settlements’ irrigation, while the rest flows freely into the Mountain Aquifer, “an area sensitive to pollution.” It creates dangerous sanitation and environmental hazards, including groundwater pollution. Yet it’s used as livestock drinking water and for Palestinian farmland irrigation, “despite the (considerable) health risk.”

Since the 1970s, remediation plans were proposed and rejected – according to Israel’s Jerusalem Municipality because of a lack of Palestinian Authority (PA) cooperation, not gotten because giving it would grant legitimacy to the settlements.

More recently, Jerusalem’s Ministry of Environmental Protection director warned Israeli

officials about criminal responsibility for failure to address this growing problem. Only then were various treatment options suggested, including piping it from its origin through Abu Dis and Eizariya to the Og Reservoir facility to be expanded with added capacity. However, PA opposition over the “geopolitical situation” suspended the plan. Jerusalem’s District Planning and Building Committee scheduled discussion of alternative options, but nothing so far has materialized.

Despite inadequate solutions, Jerusalem’s population growth exacerbates the problem. For example, residents moved into the Pisgat Ze’ev settlement before a treatment facility was completed – in violation of by-law provisions that Jerusalem’s District Planning and Building Committee chose to ignore, either there or in other settlements.

#### Wastewater from Palestinian Communities

Only 20% of Palestinian homes are connected to sewage systems. Yet they’re outdated, often leak, can’t handle the volume, and thus spill into cesspits along with effluent from the other 80% of Palestinians. As a result, groundwater gets seriously contaminated because 90 – 95% of Palestinian sewage isn’t treated at all, and only one treatment plant for it is functioning.

Israeli neglect is the problem. In the early 1970s, it built four treatment facilities – in Jenin, Tulkarm, Hebron and Ramallah, but their effectiveness has been “minimal to poor” and three of them no longer function. The one Ramallah operating one is small with inadequate capacity to handle the city’s wastewater. As a result, it’s barely treated.

The 1995 Israeli-Palestinian Interim (West Bank and Gaza) Agreement stipulated that both sides cooperate on taking “all necessary measures” to prevent water pollution or contamination. An Israeli-Palestinian Joint Water committee (JWC) was established with unanimity required for all decisions. Yet no dispute resolution mechanism exists so Israel can unilaterally approve or reject all water and wastewater treatment requests and it does. As a result, new facilities haven’t been built despite an urgent need for them.

Besides adequate funding, approval procedures are prolonged and complicated because of environmental and other considerations. In addition, Israel’s approval is needed, and a large land area (away from residential neighborhoods) is required for an initial facility with plenty of room for expansion.

Years elapse with no resolution, so today the Palestinian Water Authority says Israel is currently delaying or obstructing 140 water and wastewater projects. For example:

- in 1996, a Tulkarm plan was submitted; yet it took until 2006 before the JWC agreed on an Area C location – under Israeli control on matters relating to land, planning and building; in December 2008, the Civil Administration’s International Organizations Desk chief recommended that “establishment of the facility in Area A (under Palestinian control) be examined, and that care be taken that it does not extend into Area C;” the project is now in jeopardy;

- in 1997, the JWC received a West Nablus plan; the Civil Administration twice demanded a location change, and it took until May 2008 for construction permits to be issued, yet nothing so far has proceeded; another East Nablus proposal was cancelled because of delays in obtaining approval; and

— in 1999, a West Ramallah proposal was submitted to the JWC; it was approved, but the Civil Administration demanded a location change because it was close to the Separation Wall's planned route; a final plan has yet to be introduced for approval.

From 1996 – 1999, Israel required Palestinian facilities to treat settlements' wastewater, way beyond their proposed capacity and something the PA won't do because it would grant legitimacy to the settlements in violation of international law.

Israel creates other obstacles as well. In 2002, the Civil Administration required a proposed Hebron plant to meet advanced treatment standards, not demanded for settlement facilities or in Israel until 2005 under a plan for gradual implementation through 2015 because of the cost involved.

Israeli policy exploits the situation to its advantage. It treats some Palestinian wastewater flowing into Israel but charges the PA for doing it. Also ignored is a proper Palestinian water treatment solution and the contamination that results.

### Consequences of Neglecting Wastewater Treatment in the West Bank

Settlers rely on Israel's water supply system with no problems. Palestinians, however, suffer from pollution and a shortage of safe drinking water. Also, using wastewater for irrigation contaminates crops and endangers human health. Over time, land fertility is also diminished.

A 2002 UN Environmental Program report showed that raw sewage polluted West Bank Palestinian water sources. A 1998 Al-Quds University study of the Jordan Valley, Nablus, Jenin and Tulkarm found one-third of samples with higher than WHO recommended nitrate levels. A 1999 Bethlehem University investigation showed over 99% of 400 spring water samples with high concentrations of coliform bacteria requiring removal before use. Later studies revealed similar problems – exacerbated because most settlements are on ridges and hilltops so their wastewater flows down to nearby Palestinian communities. The problem is extremely serious.

Three years ago it was exacerbated when the Elon Moreh settlement facility broke down causing wastewater to flow toward nearby Palestinian villages. Elon Moreh processed very toxic effluent from leather and meat-processing plants – containing extremely high acidity levels able to cause burns on contact. Lab analysis confirmed “a grave sanitation risk to humans and animals (likely to) cause loss of life (and an) environmental and health disaster.”

The wastewater destroyed crops and olive trees for up to 30 meters on either side of its channel. Azmut farmers couldn't sell their contaminated crops, and a severe mosquito problem and powerful stench caused allergies, dizziness and headaches among nearby village residents. A woman called life their “terrible...as if we're living in a swamp. We can't even eat our food.”

Other villages were also affected the same way. In 2008, B'Tselem demanded that action be taken to stop this. Only then did the Municipal Environmental Association of Samaria take any remediation measures that diminished but didn't eliminate the problem.

Similar conditions exist throughout West Bank areas, exacerbated by growing settler populations and scant attention to Palestinian needs and welfare. Ariel is one of the largest

settlements, yet its facility experiences frequent breakdowns. In 2006, the Ministry of Health reported that it was non-functional, and in 2008, the Civil Administration's environmental protection officer told B'Tselem that the "facility can't handle the load."

It stopped operating the same year, and ever since, raw sewage has flowed into the Shilo stream, a tributary of the Yarkon River, then southwest toward the town of Salfit and west to Brukin and Kafr a-Dik villages. Despite its best efforts, Salfit Local Council member, Dr. Bassam Madi, said infectious diseases occur as well as damaged crops, livestock, and the virtual extinction of deer, rabbits and foxes once common to the area. Natural vegetation like hyssop also disappeared.

Until 2004, the Ministry of Environmental Protection turned a blind eye to the situation. It then merely warned of a Water Law violation. Enforcement measures were frozen after agreement was reached to build a collection pipeline to move Ariel's wastewater to the Dan Bloc Wastewater Treatment Plant in Israel. Its estimated completion date is 2011, but so far no financing has been arranged, and the pipeline's planner said the project "would take years" once final approval is gotten.

Wadi Fukin village is gravely harmed by Betar Illit settlement wastewater. About 20 meters above its fields, the Housing Ministry built a facility that directs effluent to the Soreq treatment site. Frequent breakdowns occur because a growing settlement population overtaxes the facility causing spillage into Wadi Fukin fields, including ones near the village center that produce a severe stench.

A Bethlehem University study showed that test samples from nine adjacent springs contained coliform bacteria concentrations and high nitrate levels. It concluded that the water was unfit to drink. Betar Illit settlement assumes no responsibility for the problem, and until mid-2008, did nothing minimally to address it. It remains a major problem

#### Israeli Breaches of International Law

Israel is a serial offender, including repeated violations of its obligations as an occupying power. Its failure to address wastewater issues is one of many examples, and B'Tselem puts it this way:

"Neglect in treating wastewater in the West Bank infringes the rights of Palestinians to (clean) water and sanitation and their right to gain a livelihood from their agricultural crops."

Fourth Geneva's Article 56 requires an occupier to "ensur(e) and (maintain), with the cooperation of national and local authorities....public and hygiene in the occupied territory, with particular reference to the adoption and application of the prophylactic and preventive measures necessary to combat the spread of contagious diseases and epidemics."

Israel is obligated to assure safe water sources to ensure "public order and safety" and protect the population from harm. The High Court of Justice interprets this to mean a duty to take "all means necessary to ensure growth, change and development (and do what's essential through) investments and carrying out long-term plans for the benefit of the local population (even if they remain in place) after the military government ends." The Court also held that this duty "applies to the varied living requirements of the inhabitants, including medical needs, sanitation....and other needs that people require in modern



society.”

In 1966 for the first time, the UN’s Committee on Economic, Social and Cultural Rights (CESCR) defined clean drinking water as a right, given that it’s essential to life, health and well-being. So do other UN Conventions, including the 1981 Convention on the Elimination of All Forms of Discrimination against Women and the 1989 Convention on the Rights of the Child.

In 2006, the UN Sub-Commission on the Promotion of Human Rights adopted CESCR recommendations for safe drinking water and sanitation. They require nations to prevent water pollution and assure that all persons have the “right to access adequate and safe sanitation that protects public health and the environment.” UNICEF also calls access a “basic human right” to assure health and human dignity. The UN 2000 Millennium Declaration affirmed a goal of halving by 2015 the world population without these fundamental essentials, and a UN Human Rights Council 2008 resolution, among others, included the same declaration.

### Conclusions and Recommendations

Of the West Bank’s 2.8 million Palestinians, wastewater for over two million of them goes untreated, the result of Israel’s willful neglect in violation of international humanitarian law and its obligation as an occupier. As a result, the Nature and Parks authority warns that “sooner or later, critical damage will be caused to Israeli and Palestinian water sources.”

The Palestinian Applied Research Institute Jerusalem calls neglect “a grave environmental threat,” and a UN Environmental Program delegation said “urgent action” is needed to address the problem. Israel remains unresponsive to a worrisome situation, and its growing settlement population exacerbates it.

It’s essential for a joint Israeli – Palestinian initiative to address it responsibly, but Israel must take the lead. B’Tselem puts it this way:

So long as Israel is an occupying power and its “settlements remain, all their wastewater (and that of Palestinians) must be treated in accordance with treatment standards (applied) inside Israel, and the law must (strictly) be enforced against polluting settlements.” In cooperation with each other, remediation projects must be undertaken to serve both sides, and “ultimately....Palestinians, if the settlements are evacuated,” as international law so states.

*Stephen Lendman is a Research Associate of the Centre for Research on Globalization. He lives in Chicago and can be reached at [lendmanstephen@sbcglobal.net](mailto:lendmanstephen@sbcglobal.net).*

*Also visit his blog site at [www.sjlendman.blogspot.com](http://www.sjlendman.blogspot.com) and listen to The Global Research News Hour on Republic Broadcasting.org Monday – Friday at 10AM US Central time for cutting-edge discussions with distinguished guests on world and national issues. All programs are archived for easy listening and are accessible through [www.GlobalResearch.ca](http://www.GlobalResearch.ca).*

<http://www.globalresearch.ca/index.php?context=va&aid=14333>

[Comment on Global Research Articles on our Facebook page](#)

[Become a Member of Global Research](#)

Articles by: [Stephen Lendman](#)

#### About the author:

Stephen Lendman lives in Chicago. He can be reached at [lendmanstephen@sbcglobal.net](mailto:lendmanstephen@sbcglobal.net). His new book as editor and contributor is titled "Flashpoint in Ukraine: US Drive for Hegemony Risks WW III."

<http://www.claritypress.com/LendmanIII.html> Visit his blog site at [sjlendman.blogspot.com](http://sjlendman.blogspot.com). Listen to cutting-edge discussions with distinguished guests on the Progressive Radio News Hour on the Progressive Radio Network. It airs three times weekly: live on Sundays at 1PM Central time plus two prerecorded archived programs.

**Disclaimer:** The contents of this article are of sole responsibility of the author(s). The Centre for Research on Globalization will not be responsible for any inaccurate or incorrect statement in this article. The Centre of Research on Globalization grants permission to cross-post Global Research articles on community internet sites as long the source and copyright are acknowledged together with a hyperlink to the original Global Research article. For publication of Global Research articles in print or other forms including commercial internet sites, contact: [publications@globalresearch.ca](mailto:publications@globalresearch.ca)

[www.globalresearch.ca](http://www.globalresearch.ca) contains copyrighted material the use of which has not always been specifically authorized by the copyright owner. We are making such material available to our readers under the provisions of "fair use" in an effort to advance a better understanding of political, economic and social issues. The material on this site is distributed without profit to those who have expressed a prior interest in receiving it for research and educational purposes. If you wish to use copyrighted material for purposes other than "fair use" you must request permission from the copyright owner.

For media inquiries: [publications@globalresearch.ca](mailto:publications@globalresearch.ca)