



State Comptroller of Israel | Local Government Audit  
Report | July 2024

Follow-up Audit

---

# **Selected Issues in the Water Sector in Samaria – Follow-up Audit**





## Selected Issues in the Water Sector in Samaria – Follow-up Audit

### Background

In Samaria, there are nine Jewish local authorities, most of which were established between 1975 and 1983, including the Ariel municipality, seven local authorities – Oranit, Alfei Menashe, Elkana, Emanuel, Kedumim, Karnei Shomron, and Sha'ar Shomron – and the Samaria Regional Council. As of the end of February 2023, their total number of residents was about 113,700.

According to the Water and Sewage Corporations Law 2001, all local authorities should establish regional corporations to provide water and sewage services. This obligation does not include the local authorities in the Judea and Samaria region, except for one regional corporation that serves the Ariel municipality and the Karnei Shomron local authority. The remaining local authorities in Samaria independently provide water and sewage services to their residents, each within their respective jurisdictions.

In 2020, the State Comptroller's Office published an audit report on "Selected Issues in the Water Infrastructure in Samaria" (the previous audit). The audit focused on various aspects of the water sector, including water depreciation and its causes, strategies to reduce water losses, and establishing a water corporation in Judea and Samaria. The current audit (follow-up audit) examined whether and to what extent the deficiencies noted in the previous audit were rectified.



## Key Figures

**99–121  
cubic  
meters**

the water consumption per capita in 2021 in the examined local authorities. Water consumption per capita in the unincorporated local authorities was 85 cubic meters in 2020

**12%–  
15.3%**

the water depreciation rates in 2019–2021 in the examined local authorities, compared to the national average rate in unincorporated local authorities – 9.4%

**30%**

of the water charges in **Oranit** in 2020–2022 were based on estimates with no measurement

**580**

complaints about bursts in the water pipes, water leaks, and interruptions in the water supply were received at the **Elkana** call center in 2020–July 2023

**13% and  
12%**

the average annual water depreciation rates in **Kedumim** and **Alfei Menashe**, respectively, in 2019–2021 – a significant reduction compared to an average rate of 19.8% and 16.1% in 2015–2018

**18%**

the consumers' rate who did not receive benefits in water payments out of all those entitled to it in 2022 in all local authorities, 125,458 consumers

**62%–  
85%**


the benefits recipients' rate in water payments among all those entitled to it in 2022 in the examined local authorities

**99%–  
100%**




the rate of the water quality integrity provided by the examined local authorities in 2023



## Audit Actions

 From June to September 2023, the State Comptroller's Office audited whether and to what extent the key deficiencies noted in the previous report were rectified (follow-up audit). The follow-up audit was conducted in four local authorities in Samaria: **Oranit**, **Alfei Menashe**, **Elkana**, and **Kedumim** (the examined authorities). Completion examinations were performed at the Governmental Water and Sewage Authority (Water Authority).


## Key Findings


-  **Individual Master Plan for the Water Sector** – the previous audit raised that the examined local authorities had not developed a master plan for water. **The follow-up audit found that the deficiency was slightly rectified:** **Oranit** prepared a master plan but did not prepare a non-current budget to submit to the Ministry of Interior for approval. **Alfei Menashe** drafted an initial master plan; **Elkana** did not prepare a master plan; And **Kedumim** published a master plan but did not implement it due to insufficient budgetary resources.
-  **Activities of the Water Authority to Reduce Water Depreciation<sup>1</sup>** – the previous audit raised that the Water Authority did not encourage local authorities in Samaria to reduce water depreciation rates. **The follow-up audit found that the deficiency was slightly rectified:** The Authority issued a booklet of instructions for reducing water losses. It guided local authorities to prepare a water supply master plan. Nonetheless, the focus of this activity primarily addressed water corporations, neglecting local authorities that have not established a water corporation.
-  **Water Depreciation Surveys** – the previous audit raised that the examined local authorities had not conducted updated water depreciation surveys. **The follow-up audit found that the deficiency was not rectified:** **Alfei Menashe**, **Elkana**, and


<sup>1</sup> Water depreciation refers to the difference between the volume of water purchased by a local authority from the Mekorot Water Company Ltd. and the volume sold to its consumers. There are two categories of depreciation: operational depreciation, resulting from water loss due to defects within the water network, such as pipe cracks and bursts; And administrative depreciation, stemming from the supply of unmetered water, inaccuracies in water meters and instances of water theft. Analyzing the causes of water depreciation can assist local authorities in substantially lowering water depreciation rates.




**Kedumim** had not performed surveys since the previous audit, and **Oranit** submitted a report from October 2021 that only partially reviewed the causes of water depreciation.

 **Age of the Water Pipes** – the previous audit raised that the examined local authorities have not documented the age of their water pipes and the lengths of pipes in each street that were not replaced. For instance, the total length of water pipelines in **Alfei Menashe** in 2008 was 30,650 meters, 41% of which (12,698 meters) were laid decades before (including 7,539 meters in 1991 and 5,159 meters in 1986 or earlier). In 2019, **Kedumim** had a total pipe length of 20,365 meters; 66% (13,492 meters) were installed decades ago, primarily in 1985. **The follow-up audit found that the deficiency was not rectified: Oranit, Alfei Menashe, and Elkana** still have no information on the age of water pipes and replacement sections, Although **Kedumim** stated it had replaced pipes in several neighborhoods since the previous audit.

 **Central Water Meters** – the previous audit noted that the Water Authority had prepared a booklet of instructions to reduce water losses in municipal networks but had not published it. **The follow-up audit found that the deficiency was not rectified** and that instructions for preparing a master plan for water supply and the Water and Sewage Corporations Rules (Determining Conditions in the License Regarding Engineering Standards), 2017, do not refer to installing central water meters. The previous audit raised that the examined local authorities did not install such meters to reduce water depreciation rates; **the follow-up audit found the deficiency was slightly rectified: Oranit, Alfei Menashe, and Elkana** have not installed central water meters, whereas **Kedumim** has installed 23 such central water meters.

 **Providing Government Support to Reduce the Price of Water Services** – the previous audit noted that the Water Authority did not encourage the local authorities to utilize benefits according to eligibility criteria. **The follow-up audit found that the deficiency was not rectified.**

 **Publishing Information on Water Quality** – the previous audit raised that the examined local authorities did not provide information about water quality on their websites. **The follow-up audit found that the deficiency was slightly rectified: Oranit and Elkana** still do not publish water quality information online. **Alfei Menashe** links the Ministry of Health website with water quality data, while the **Kedumim** actively publishes it on its website.



**The Water Depreciation Rates** – the previous audit raised that water depreciation rates from 2015 to 2018 in the examined local authorities surpassed those of unincorporated local authorities. **The follow-up audit found that the deficiency was substantially rectified:** the depreciation rates from 2019 to 2021 in **Oranit, Alfei Menashe, and Kedumim** were significantly reduced (**Oranit:** 15.3% compared to 19.2%; **Alfei Menashe:** 12% compared to 16.1%; **Kedumim:** 13% compared to



19.8%). **Elkana** demonstrated a minor improvement in depreciation rates (14.3% compared to 14.7%). However, the rates in the examined authorities remain high compared to the national average for unincorporated local authorities, which was 9.4%.

**The Local Authorities' Efforts to Reduce Water Depreciation** – the previous audit raised that the examined local authorities have not mitigated water depreciation rates. **The follow-up audit found that the deficiency was considerably rectified; Oranit, Alfei Menashe, and Kedumim** reduced depreciation rates by installing new water meters. By the audit end (September 2023), **Elkana** installed 60 out of about 150 new water meters planned for public parks and institutions.

**Age of Water Meters** – the previous audit raised that a considerable number of water meters in the examined local authorities were not examined in the six years preceding the audit (ranging from 24% to 69% of all water meters, except for **Kedumim** where only 3% were outdated). **The follow-up audit found that the deficiency was fully rectified:** within the examined local authorities' jurisdiction, a small percentage of aging water meters remain (between 1% and 3%, excluding **Oranit**, where 27% of old water meters are still found).

**Water Meter Survey** – the previous audit raised that according to **Elkana's** survey, water meters located in gardens and public institutions were disconnected from the council's collection system, several meters poorly functioned, and some properties consumed water without measurement. **The follow-up audit found that these deficiencies were fully rectified; Elkana** replaced old meters with remote-reading-type meters and installed new meters in public gardens and institutions.

**Utilization of Non-Current Budget and the Water Pipeline Fund** – the previous audit noted that the examined local authorities did not use non-current budgets and the Water Pipeline Fund resources for water sector development operations. **The follow-up audit found that this deficiency was fully rectified,** with local authorities now utilizing these funds appropriately for development initiatives in the water sector.

**The Water Restoration Fund** – the previous audit raised that the local authorities did not manage a water restoration fund. **The follow-up audit found that this deficiency was considerably rectified: Oranit, Alfei Menashe, and Kedumim** established such a fund. However, **Elkana** still lacks a water restoration fund.






**Government Support to Reduce Water Service Cost** – the previous audit raised that the examined local authorities have not identified beneficiaries eligible for payment benefits for additional water. **The follow-up audit found that the deficiency was considerably rectified:** in **Oranit**, nearly all eligible beneficiaries received the benefit during the follow-up audit, an increase compared to a quarter of those entitled previously. In **Alfei Menashe**, almost 75% received benefits compared to roughly half in the previous audit. In **Kedumim**, about 93% of eligible beneficiaries received benefits, compared to around 90% in the previous audit. In **Elkana**, while about 99% of beneficiaries utilized their entitlement in the previous audit, there was a slight decrease



in their rate during the follow-up audit, and close to 93% of those entitled received the benefit.

---

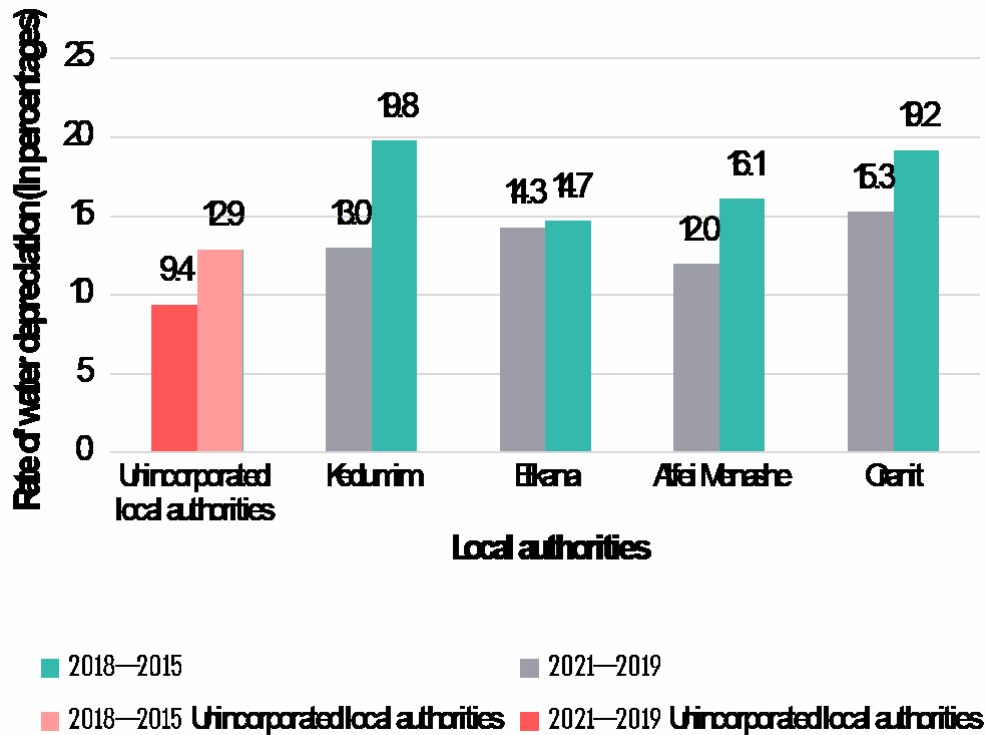
## Key Recommendations

-  Given the decrease in the rate of those entitled to a reduced payment for additional water from 88% in 2018 to 82% in 2022, it is recommended that the Water Authority encourage local authorities to identify and inform residents about this benefit. Given the challenges associated with establishing a water corporation in Samaria, it is recommended that the Water Authority consider the most effective alternatives for comprehensive solutions and implement them.
-  **Oranit, Alfei Menashe, and Elkana** should conduct updated surveys to document the installation dates and lengths of water pipes in newly developed neighborhoods and data regarding pipe replacement in existing areas. A plan should be formulated and implemented to replace aging water lines.
-  **Kedumim** should record the replacement dates and locations of old water meters.
-  **Oranit, Alfei Menashe, and Elkana** should adhere to the guidelines set forth by the Water Authority and proactively identify leakage points shortly after their occurrence, including installing central water meters.
-  It is recommended that **Oranit, Alfei Menashe, Elkana, and Kedumim** locate those entitled to the benefit on payment for additional water who do not exercise this entitlement.





**The Average National Water Depreciation Rate in Unincorporated Authorities and the One in the Examined Local Authorities in 2015–2018 and 2019–2021 (in percentages)**



According to the Water Authority, data was provided to the Office of the State Comptroller in March 2020 and June 2023 and processed by the Office of the State Comptroller.



---

---

## Summary

In 2020, the State Comptroller's Office published an audit report on "Selected Issues in the Water Infrastructure in Samaria." The report raised significant deficiencies in the provision of municipal water services to residents in the local authorities of Samaria.

The follow-up audit found that some deficiencies were fully or considerably rectified: the water depreciation rates in the examined local authorities have decreased in recent years, though these rates remained high compared to other local authorities in the country that are not incorporated into water corporations. Most water meters under the jurisdiction of Alfei Menashe, Elkana, and Kedumim are new, and Oranit, Alfei Menashe, and Kedumim manage a water restoration fund.

Other deficiencies were only partially rectified: Alfei Menashe and Elkana did not prepare master plans for the water sector; in Oranit and Elkana, part of the water charges was based on estimates; And there are no central water meters in Oranit, Alfei Menashe, and Elkana.

Some deficiencies were not rectified: Alfei Menashe, Elkana, and Kedumim have not conducted surveys in recent years to examine the causes of water depreciation.



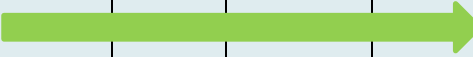
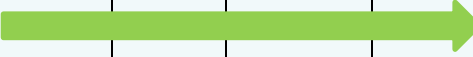

The findings of the follow-up audit indicate an improvement in water management within the examined local authorities. However, they and the Water Authority should continue rectifying the deficiencies outlined in this follow-up report.




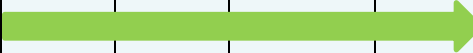


### The Extent of Rectification of the Key Deficiencies Noted in the Previous Audit

The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	The Extent of Deficiencies Rectification Noted in the Follow-Up Audit			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Individual master plans for the examined local authorities	The examined local authorities	All the examined local authorities did not prepare a master plan for water and sewage.				
Water depreciation rates	The examined local authorities	The water depreciation rates in all the examined local authorities were higher than those in all the unincorporated local authorities.				
Activities of the Water Authority to reduce water depreciation	The Water Authority	The Water Authority did not encourage the local authorities in Samaria to reduce water depreciation rates within their jurisdiction.				
The activity of local authorities to reduce water depreciation	The examined local authorities	The examined local authorities did not reduce the water depreciation in their jurisdictions.				



The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	The Extent of Deficiencies Rectification Noted in the Follow-Up Audit			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Water depreciation surveys	The examined local authorities	They did not conduct an updated water depreciation survey.				
The age of the water pipes	The examined local authorities	They have no information about the age of the water pipes in each street.				
The age of the water meters	<b>Alfei Menashe, Elkana and Kedumim</b>	Their water meters are old and have not been examined in the six years before the audit.				
Water meter survey	<b>Elkana</b>	It did not replace its old water meters with remote-reading-type water meters or install water meters in public gardens and institutions.				
Central water meters	The Water Authority	The Water Authority prepared a booklet of instructions to reduce water losses by installing central water meters but did not publish it.				



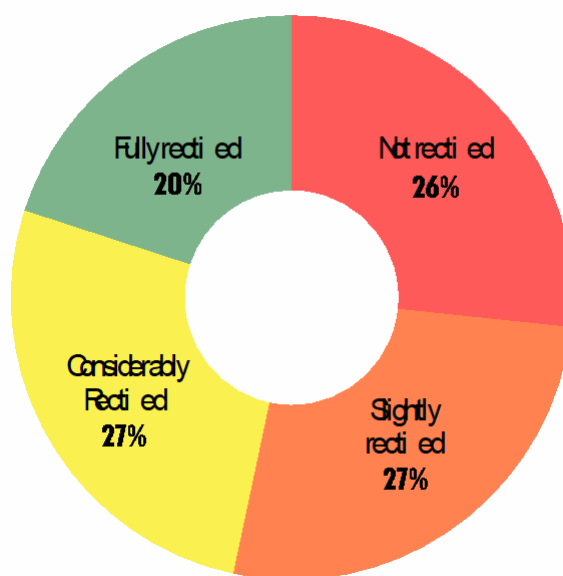
The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	The Extent of Deficiencies Rectification Noted in the Follow-Up Audit			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
	<b>Oranit, Alfei Menashe and Elkana</b>	The examined local authorities, except for <b>Kedumim</b> , did not install central water meters to reduce the water depreciation rates.				
The use of the non-current budget and the water pipeline fund	<b>Alfei Menashe, Elkana and Kedumim</b>	<b>Alfei Menashe, Elkana, and Kedumim</b> did not use the non-current budget and the Water Pipeline Fund to develop the water sector.				
Water Restoration Fund	The examined local authorities	The examined local authorities did not manage a water restoration fund.				
Providing government support to reduce the price of water service	The Water Authority	The Water Authority did not encourage the local authorities to realize the benefits they are entitled to.				



The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	The Extent of Deficiencies Rectification Noted in the Follow-Up Audit			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
	The examined local authorities	The examined local authorities did not locate those entitled to a payment benefit for additional water.				
Publishing information to residents about water quality	<b>Oranit and Elkana</b>	The examined local authorities, except for <b>Alfei Menashe</b> , did not publish information about water quality on their websites.				



### All the Deficiencies Noted in the Previous Audit, According to the Extent of Their Rectifications





### The Deficiencies Noted in the Previous Audit, Broken Down According to the key Audited Bodies

