

Office of the State Comptroller Annual Report 71A | 2020

Government Water and Sewage Authority

Connection of the Golan Heights, the Upper Sea of Galilee Region and the Eastern Valleys to the National Water System

Abstract



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Background

The national water system is the central water supply network that relies mainly on the national water carrier and connects the main sources of water to the main water distribution system. There are regions that are not connected to the national water system, where water supply is based solely on local sources of water with no back-up supply of water from the national system. These main regions are the Golan Heights, the Upper sea of Galilee region, the Eastern Valleys and the Arava region. On June 10, 2018, the government passed a resolution entitled "Strategic Plan for Contending with Periods of Drought in the Water Economy 2018 – 2030." The resolution stated, inter alia, that the Water Authority should consider by December 31, 2018, a plan for connecting the unconnected regions to the national system in order to create a fully reliable supply of potable water and increase the reliability of the water supply for agriculture, for nature and for tourism in the unconnected regions – the Upper Sea of Galilee region, the Golan Heights, the Eastern Valleys and the Western Galilee region.

Key figures

46%

the water consumption ratio in the unconnected regions in 2018 out of the total consumption of freshwater in Israel for agricultural purposes. According to the Water Authority's assessment¹, in 2019, 45% was consumed.

51 million m³

the forecasted water shortage for agriculture in the region of the eastern valleys in 2050

360 million m³

the water shortage in the natural reservoirs in the hydrological year 2018 – 2019². The water shortage in the natural reservoirs in the hydrological year 2017 – 2018 was 1 billion m³

ILS 1.6-1.7 billion

the capital and operating costs of connecting the Upper Sea of Galilee region, the Golan Heights and the Eastern Valleys to the national system according to the various alternatives, as per the Water Authority's estimate

22 million m³

the forecasted maximum water shortage for agriculture in the Upper Sea of Galilee region and in the Golan Heights in 2030, at a reliable water supply ratio of 80% according to the Water Authority's assessment

ILS 1.5 billion

annual cost of Mekorot's³ development plan in 2020 – 2022

¹ The Water Authority informed the Office of the State Comptroller that the 2019 data "are still being processed and precise data cannot be provided."

² Relative to the recommended green line level.

³ Mekorot is Israel's national water company.



Audit actions

From April to December 2019, the Office of the State Comptroller audited the planning and implementation of the government resolution of June 2018 regarding the plan for connecting the unconnected regions – the Golan Heights, the Upper Sea of Galilee region and the Eastern Valleys. The examinations were conducted in the Water Authority and in Mekorot.

Key findings



- The plan for examining the need to connect the unconnected regions to the national water system in June 2018, the government passed a resolution instructing the Water Authority to present a plan to the Minister of Energy by December 2018 for examining the need to connect the unconnected regions. The audit found that the Water Authority had submitted a presentation to the Water Authority Council and to the Minister of Energy containing the main information for discussion purposes, which was revised from time to time. However, up until the audit completion date, it was not found that a detailed plan had been submitted, including explanations that could provide a comprehensive basis for discussions and decision-making. The Water Authority also did not supplement its presentation with all information needed for the decision-making process with regard to the mode of connection of the unconnected regions to the national water system or the contractor that would carry out the connection project.
- Presentation to the Water Authority Council of the impact of carrying out each of the alternatives for connecting the unconnected regions on the water tariff to consumers the Water Authority did not present economic analyses to the Water Authority Council showing the impact of each of the proposed alternatives on the water tariff to consumers for the purposes of decision-making with regard to connecting the unconnected regions to the national water system.
- Managing the process of selecting the contractor to carry out the alternative of connection through the Upper Sea of Galilee region the Water Authority has not yet completed its examination of the contractor selection process and has not presented to the Council how it intends to manage the process, a cost assessment, selection criteria, examinations of the candidate's financial robustness, the risks involved in enabling various contractors to potentially gain actual control over the water sources, or its assessments of project duration according to the various alternatives.
- Master plans for the unconnected regions As of the audit completion date, the Water Authority has not approved master plans for the supply of water for agricultural purposes to the Druze agricultural associations in the Golan Heights,

a plan for the supply of freshwater to the northern Golan Heights and master plans for the Jordan Valley and for the Beit She'an region. However, it has not yet completed the preparation of master plans for the Upper Sea of Galilee region or comprehensive master plans for the eastern valleys. In the absence of master plans, information is lacking that could improve the accuracy of the assumptions applied in the analyses being performed in preparation for submitting the relevant information to the Council members

- Master plan for water and for agriculture a master plan for water and for agriculture has not yet been completed. In the absence of an approved joint master plan for water needs and for agriculture needs of water, the Water Authority was unable to take into account all of the water needs required for agriculture during its analysis regarding connection of the unconnected regions, and considered only those needs discussed and approved by the government or those that have been approved by an agricultural program. A master plan containing reliable data is essential for making decision regarding high-cost projects designed to meet the future needs of the unconnected regions.
- Information regarding project duration for each of the alternatives in the information that the Water Authority presented to the Council, it did not mention plan completion schedule under the various alternatives or critical milestones in the execution of each of the alternatives, relative to the point at which the need to connect these regions will become critical.
- The Mekorot development plan's reference to the connection projects the delay in decision making regarding the alternative for performing the plan and in selecting the contractor made it impossible to address the matter of the connection projects when the decision was being reached about Mekorot's development plan for the years 2020 2022. Consequently, the projects could not be included in the development plan approved for Mekorot for 2020 2022.



Initiation and promotion of a government resolution on the matter of connecting the unconnected regions to the national water system within the framework of a Strategic Plan for Contending with Periods of Drought in the Water Economy – the Ministry of Energy initiated and promoted a government resolution on the matter of a strategic plan for contending with periods of drought in the water economy between the years 2018 and 2030, in which, inter alia, it instructed the Water Authority to consider a plan for connecting the unconnected regions to the national water system.



Key recommendations

- It is recommended that the Water Authority should complete its examination of all matters specified in this report and should submit a methodological plan to the Water Authority Council that details all relevant considerations and aspects of connecting the unconnected regions in order to formulate a decision in this regard.
- It is recommended that the Ministry of Water Resources, which is responsible for implementing the government resolution of June 2018, should continue monitoring the Water Authority's completion of its examination of the connection projects and the presentation to the Minister of Energy as stated in the government resolution.
- It is recommended that the Ministry of Agriculture should complete the formulation of the joint master plan for agriculture needs of water.
- It is recommended that the Water Authority should complete the master plan for supplying water to the Upper Sea of Galilee region.
- It is recommended that the Water Authority should prepare and present an examination to the Water Authority Council that will explain how it intends to manage the process of selecting the contractors that will carry out the projects connecting the unconnected regions to the national water system, including the format of the process, cost assessments, selection criteria, examinations of the candidate's financial robustness, the risks involved in enabling various contractors to potentially gain actual control over the water sources and assessments of project duration according to the various alternatives.
- It is recommended that the Water Authority should prepare a long-range master plan for the water economy that will contain, inter alia, the requisite reliable supply level of all types of water.

Chronology of the decision-making process regarding connection of the unconnected regions

Government resolution 3866.

10.6.18

The Water Authority was instructed to consider a plan for connecting the unconnected regions and present it to the Minister of Energy by this date.



Two meetings were held with the Director-General of the Ministry of Energy on the subject of connecting the unconnected regions.



Water Council meeting no. 1 – the Water Authority presented its position to the Water Council, whereby: connection of the Upper Sea of Galilee region is not necessary within at least the coming decade if water reservoirs are established; no problems supplying potable water to the eastern valleys are expected until 2030; and water line 64", which currently reaches the Sea of Galilee, needs to be reinforced. The Council members requested additional information.



The Water Authority conducted a public hearing. A plan and alternatives were not included in the "public request" for opinions. The Water Authority submitted a presentation containing data and alternatives only after the public's opinions were received, and in preparation for consultations with the public hearing.



Meeting with the Minister of Energy on the subject of connecting the unconnected regions.

20.8.19

The Water Authority presented the presentation "Examination of the subject of connecting the unconnected regions to the national water system" to the Minister of Energy.

8.9.19

Water Council meeting no. 2 – the Water Authority presented its position to the Water Council, whereby: the unconnected regions should be connected through the Sea of Galilee. The Council members requested additional information.



Water Council meeting no. 3 – the Council confirmed the need to connect the unconnected regions and decided that the mode of connection would be decided after the Water Authority submits additional information to it.



According to Water Authority data, processed by the Office of the State Comptroller.



Summary

The execution of water infrastructure projects takes about a decade. At the audit date, a decision has not yet been reached with regard to the alternative for connecting the Golan Heights, the Upper Sea of Galilee region and the eastern valleys to the national water system. The Water Authority should perform all necessary examinations as specified in this report and present to the Water Council all the information required for the decision-making process. Delaying the decision-making regarding the alternative for connecting the unconnected regions could lead to a water shortage in the unconnected regions within the next decade. This delay could also lead to postponed implementations of other government resolutions to develop the agricultural region, such as the government resolution strengthen the agricultural peripheries and to develop and strengthen agriculture in the Golan Heights.