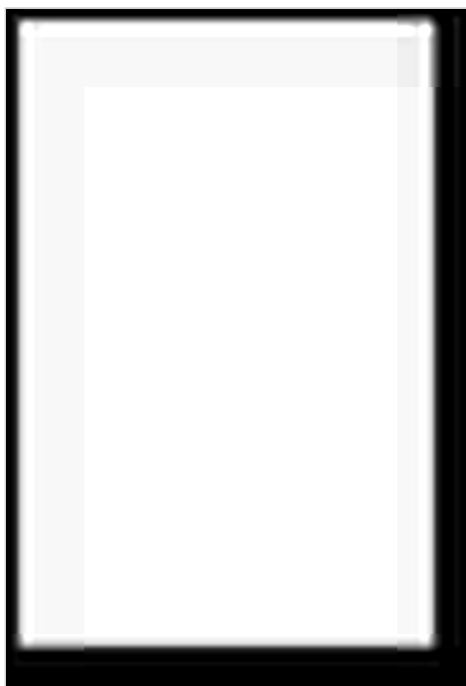


Restoring Life to the River

General information about the rehabilitation of the Kishon River and its development for the benefit of the public.

Kishon River Authority | www.kishon.org.il | Accessible (WCAG 2.2) remediated edition

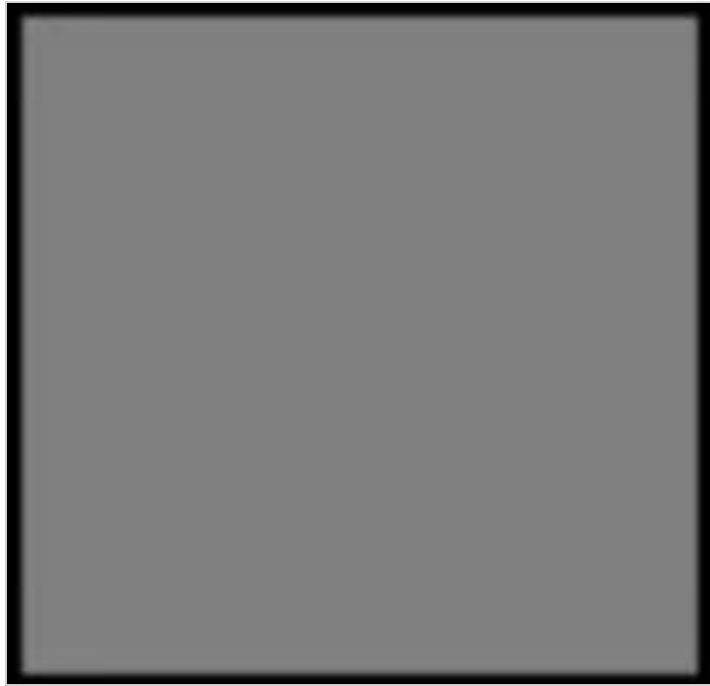


A rower on the Kishon River, with the Haifa metropolitan skyline in the background.

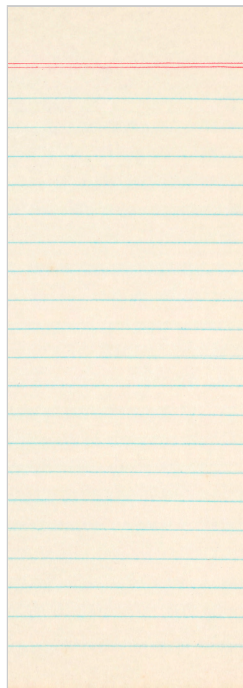
Kishon River

The Kishon River is one of the largest and most important rivers in Israel – and among the most complex. Its sources are in the northern mountains of Samaria. The river flows beyond the Green Line from Jenin and its surroundings along 70 kilometers, from the Jezreel Valley to the sea at Haifa Bay. Its main tributaries include the following streams: Shofet, Adashim, Kini, Zippori, Gedura and Saadia.

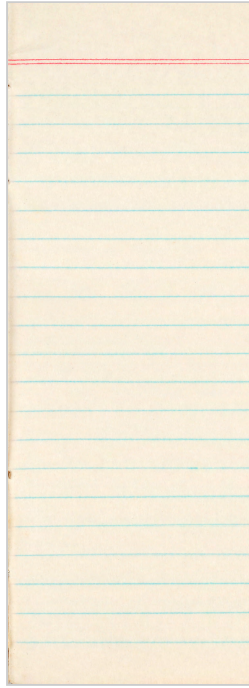
The river's drainage basin spans 1,100 square kilometers. The Kishon River is diverse in character: upstream, it traverses the heart of an agricultural area including sections with unique heritage, historic, nature and landscape values. Downstream, the river has been plagued by severe industrial and sanitary pollution for dozens of years. The pollution in this section catalyzed the establishment of the Kishon River Authority, charged with rehabilitating the Kishon River and its tributaries and developing them into vibrant rivers for the benefit of the public.



Historic photo of the Kishon River, courtesy of Dr. Ehud Galili.



Birds nesting on an island in the Kishon River.



Riverbank vegetation along the Kishon.

About the Authority

The Kishon River Authority was established under the Streams and Springs Authorities Order (Kishon River Authority), 1994. Its main function is to protect the landscape and natural treasures of the river and its banks and to prepare them as park, recreation and sport areas. The Authority is responsible for 25 kilometers of the Lower Kishon River, the Gedura River and the Lower Zippori River. Members of the Authority include: government ministries, local authorities, industrial plants, land owners, corporations and public organizations.

Responsibilities of the Authority

- Stopping the pollution of the river.
- Rehabilitating the river and restoring life to its waters and banks.
- Developing parks along the riverbanks for the benefit of the public and for leisure and recreation purposes.
- Transforming the Kishon River corridor into the green spine of the Haifa metropolitan area.
- Raising land values and attracting economic activities that will foster regional development.
- Changing the public image of the river and its surroundings.

Points of Interest

The Kishon River system connects Haifa Bay and the Kishon Harbor with the Zippori River, the Gedura River, and a network of parks and trails along its banks. Key locations along the river, from the coast inland, include:

- Haifa Bay and the Kishon Harbor
- Kiryat Motzkin, Kiryat Haim, Kiryat Bialik and Kiryat Ata, on the Gedura River branch
- Haifa and Nesher, near the Metropolitan Park
- The Zippori River
- Kfar Hassidim, near the Ha-Amakim–Kishon Park
- Kibbutz Yagur and Sha'ar Ha'amakim
- Alro'i Spring Park and the network of river trails (walking and cycling)

The original brochure includes an illustrated map of these locations; the list above reproduces the same information in accessible text form.

Achievements

- Approval of the Kishon River Master Plan by the Israeli government.
- Ongoing supervision of discharges to the river and protection of the river and its environs from hazards.
- Reduction in the volume and improvement in the quality of effluent discharges to the river and significant improvement in its water quality.
- Setting of an environmental standard for water quality in the Kishon River.
- Implementation of comprehensive monitoring to check water quality along the length of the river at regular intervals.
- Establishment of an online monitoring station for continuous measurement of river water quality.
- Biological monitoring of the return of life to the river and the return of species to it.
- Establishment of a breeding nucleus of rare plant species which are characteristic of the river environment.
- Implementation of a comprehensive survey to determine and characterize the pollution in the riverbed.

- Adoption of a government decision on a pollution cleanup plan for the Kishon River with joint funding from government ministries, local authorities and industrial plants.
- Preparation of a water plan for the river.
- Establishment of parks along the riverbanks: in Kiryat Tivon, Ha'amakim Junction, Alro'i Spring, the Gedura River Park in Kiryat Bialik and the Fishing Harbor Park in Haifa.
- Preparation of a detailed plan for the Lower Kishon River Park in an area spanning about 90 hectares (0.9 square km).

Kishon River Master Plan

The Authority prepared a multidisciplinary, comprehensive and long-term master plan that defines the rehabilitation, conservation and development policy for the Kishon River and its surroundings, and the means for its implementation.

Future Goals

- Implementing a complete solution for industrial effluents and stopping discharges to the river.
- Improving the river's water quality and cleaning up the riverbed from pollution for boating and fishing purposes.
- Implementing a water supply program for the river in accordance with river rehabilitation principles.
- Adding park sections and bicycle paths along the river and its tributaries.
- Developing an urban nature park downstream.
- Diverting the Lower Saadia River to the Kishon salt marshes and developing a bird-watching park in the region.
- Rehabilitating unique habitats along the river.
- Establishing a river rehabilitation and wetland visitor center.

Water Quality Improvement in the River

In recent years, there has been significant improvement in water quality in the Kishon River. This is due to regulation and supervision of industrial plants by the Kishon River Authority and the Ministry of Environmental Protection and to

requirements for upgrading wastewater treatment facilities and improving the quality of discharges to the river, as well as to treatment of the different hazards along the river.



Cormorants have returned to the Kishon River.



The Kishon River near the industrial area, with cooling towers in the background.

Improvement in the water quality of the Lower Kishon River

Histadrut Bridge, Haifa (data in mg/l), comparing 2001 with the most recent measured year in the original chart.

Reduction in pollution levels at the Histadrut Bridge monitoring station since 2001, by water-quality indicator

Water-quality indicator	Reduction in pollution levels since 2001
BOD (Biochemical Oxygen Demand)	96%
TOC (Total Organic Carbon)	93%
Total Phosphorous	99.6%
Total Nitrogen	65%
Ammoniacal Nitrogen	92%

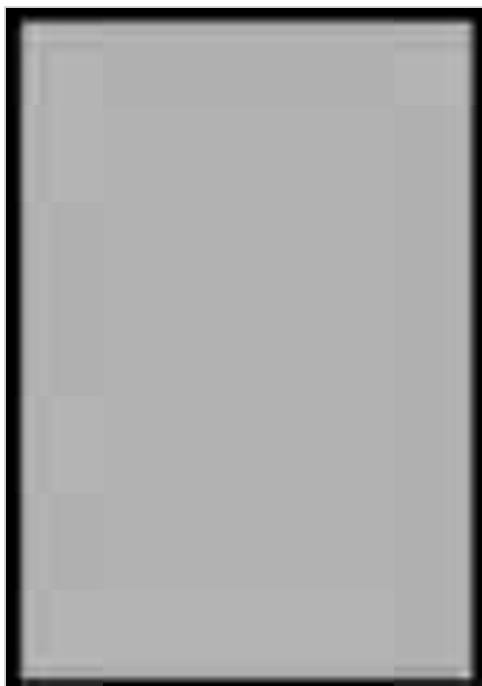
The original brochure presents this same data as a multi-year bar chart (2001–2014) for each indicator; the table above reproduces the headline reduction figures from that chart in accessible form.

Improvement in river water quality: In order to achieve the targets set in the environmental standard for water quality in the Kishon River, the Authority is taking action to fully stop industrial discharges to the river and to reduce pollutants in the entire Kishon basin.

The Rehabilitating Ecosystem

In the wake of the improvement in the river's water quality, wildlife has begun to return to its waters and banks. The Kishon River Authority operates a biological monitoring system and is taking steps to restore species that have disappeared from the riverbed:

- Restoration of the soft-shelled turtle
- Restoration of the Melanopsis snail
- Restoration of the *Acanthobrama lissneri* fish
- Implementation of observations
- Conservation of habitats
- Rehabilitation of vegetation



A pied kingfisher with its catch on the Kishon River.

Additional and updated information on the rehabilitation process: www.kishon.org.il | Contact: info@kishon.org.il | Tel: 04-8404404 | Fax: 04-8400639. Design: Nastya Faybish. Photos: Kishon River Authority. Historic Photo: courtesy of Dr. Ehud Galili. Production: Kishon River Authority, 2015.

This edition has been reformatted for accessibility (WCAG 2.2): the original tri-fold panel layout has been replaced by a single linear reading order with headings, alternative text for images, an accessible data table, and language tagging.