N WATERSHED PLAN

The surface runoff water and reservoir water management system will be remotely monitored and controlled by several means:

- Water level gauges in the reservoirs - Flow rate gauges in the streams Visited valves in the covered canal Integration of flood alert systems and data - Retention systems for future flood predictions

The volume of water needed to insure waterflow in the Ga'aton in the six-month Summer season is supplied by all the reservoirs along its path, existing and new.

The volume of water needed to insure waterflow in the Ga'aton in the six-month Summer season is 4,600K m3

NAHARIYA

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GA'ATON BOULEVARD OWN EUCALYPTUS TO

beedd Lad

Control of flow rates

Capacity: 2,000K m3

NEW ECO

SECTION A (1:250)

in the Ga'aton Boulevard, the

sting canal is covered over verflow agent. Ga'aton flows atural curves through the stre enhancing street life

🔥 🕇 🕂

SIDE WALK

SECTION B (1:250) lake reservoir regulates water flow between an open, shallow, natural

stream and a covered canal that

prevents overflow.

SECTION C (1:250) East of Nahariya's city border, Ga'aton has a natural geometry and a rather wide section to prevent floodplain along the riverbed.

OPEN BANK SLOPE WITH PLANT STABILIZATION ONLY PLAYGROUND water level rise probability

SERVICE ROAD STREAM TRAIL **OPEN BANK SLOPE** WITH PLANT AGRICULTURAL LAND STABILIZATION ONLY, water level rise probability 1%

מפגש עיר נחל

תחרות פומבית דו שלבית לתכנון אורבני בנהריה





GA'ATON STREAN

The purpose of this project is to turn the Ga'aton stream from a nuisance to a valuable city asset. Out of a narrow perception that nature is supposed to be cultivated for the benefit of humans, the city tried to tame the stream, restricting it to a cemented channel. The stream rewards the city with repeated floods during the winter season that charge a high communal, economic and environmental price.

The proposed meeting between the stream and the city will take place out of a broad and holistic view of the stream and its sources. It will occur in gradual and delicate stages. From completely wild at its birth in the mountains, the Ga'aton stream is more tamed in the city border's agricultural fields in the shape of a large ecological water reservoir. When it enters the main city street the Ga'aton boulevard, the stream becomes a controlled urban enhancer.

The initial meeting of the stream and the city occurs far East of the city borders in the surrounding mountains. The two streams that flow across Nahariya, the Ga'aton and the Gola which currently are more of a curse than a blessing, will be connected with a new channel to the existing Shayara reservoir. Together with other existing reservoirs along the way, the connecting channel will help regulate the water flow between the Ga'aton and the Gola and prevent seasonal overflow. This will be achieved far away from the city, where the two streams pose no danger.

From there, the main body of water, the Ga'aton flows in an open riverbed to a new urban reservoir at the edge of the city, where further regulating of the waterflow can be done, as well as the submersion of silt. In wintertime, water level is higher and less water is released downstream into the city. In summertime, water level drops when water is released downstream to ensure the stream running through the Ga'aton boulevard never dries up. Year round, the urban reservoir is an exciting addition to the city, a hotspot or rather cool spot, an ecological lake that becomes a new eco system, drawing nature lovers from near and far.

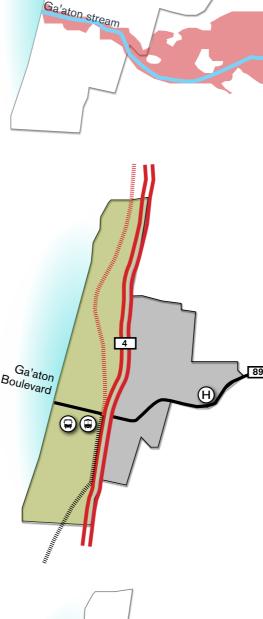
When the stream enters the main city street, the Ga'aton boulevard, it splits into two avenues. This allows for better regulation of the water. The first avenue is the existing, out-of-sight canal that will now be covered over to allow for a wider undivided street. The second avenue is a stream flowing in a natural line in an open, shallow riverbed. It maneuvers gracefully and carefully from side to side in an effort to preserve as many of the existing eucalyptus trees as possible. As it flows through the street, the stream enhances city life. It widens and narrows alternatively. It widens to accentuate focal points in the street like the city square, adding water fountains and water playgrounds to its functions. It narrows to allow the easy movement of pedestrians, cyclists and the trolley car across it. Finally, the stream meets the Mediterranean Sea in a coastline forested by maritime pines that provide shade for the seashore promenade.

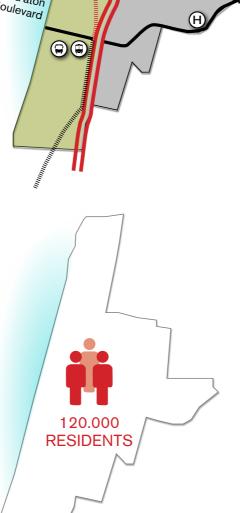






NAHARIYA 2022 Challenges





NAHARIYA IN 2040 **Project Solutions**



SEASHOR MARITIME PIN FOREST

BYPASSING ROAD TO ENABLE **CONNECTION BETWEEN** WEST AND EAST

This proposed conceptual strategic scheme turns the problem, Road Number 4, a dividing factor, into the solution, a connecting factor. A bypassing belt road, the new Road Number 4, liberates the city to redevelop densely in the intersection of Ga'aton Boulevard and Nahariya Boulevard. A new railway alongside the road, frees up the city center further. Thus Narhariya Boulevard is now at the heart rather than at the edge of the city.

CONCENTRATED **BUILDING MASS** Skyscrapers

> up to 25 stories high up to 15 stories high up to 3 stories high

CONTROLLED WATERFLOW To ensure constant water flow year round in the Ga'aton and prevent flooding, we use existent reservoirs plus:

-a new eco lake reservoir a connecting channel between Gola and Ga'aton

URBAN SYSTEM This urban planning proposal of Nahariya rests on the principal of unclogging the

city arteries of heavy car use and instead injecting lifegiving water. For that, several strategies will be employed:

Most 2040 building goals to meet future population growth estimates, will be concentrated in our "Cardo Decumanus", current Road Number 4 and The Ga'aton boulevard respectively. This will allow the rest of Nahariya to remain comparatively untouched, maintaining its character as a laidback tourist and residential destination for well-being and recuperation.

To unclog the Cardo Decumanus arteries, it is proposed to add a bypassing, curvaceous road belt going South to North along the East side of the city conurbation limit. This new Road Number 4 will divert heavy transit traffic away from our Cardo, Nahariya Boulevard. Consequently, only local traffic, participating in city life, will continue on Nahariya Boulevard. The Cardo becomes a connecting factor, a place rather than a way. The new bypassing belt highway will envelope the city, in effect expanding its city limits. The railway branches out alongside the new Road Number 4 in the direction of Lebanon and beyond in a future of peace. An additional train station in proximity to the hospital will improve accessibility to it.

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NEW TRAIN STATION

NEW BYPASSING NUMBER 4 ROAD NEW RAILWAY

H GALILEE MEDICAL CENTER

DEVELOPMENT STATISTICS housing: 1.700.000 sqm = 17.000 dwellings = 68.000 inhabitants

retail and services: 240.000 sqm = 2.400 jobs **office buildings:** 640.000 sqm = 32.000 jobs **hotels and leisure:** 100.000 sqm = 2.000 jobs Total = 2.680.000 sqm and 68.000 inhabitants

The construction rhythm to reach this target is around 15-20 years

URBAN SYSTEM PLAN 1:10.000

NAHARIYA BOULEVARD 50 m

GA'ATON STREAM

NEW ECO LAKE RESERVOIR

LAKE PARK

EVRON

SIDE WALK

SECTION D (1:250) Naharyia Boulevard









