

Coding Sustainability Practises into Schools: A Proposal to Connect Kitchen Garden Programs to Stormwater Education in Schools

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Merri Creek Management Committee

CERES

Raspberry Pi Computer





the Power of Community

How Cuba Survived Peak Oil

ReGen Villages



Home setting



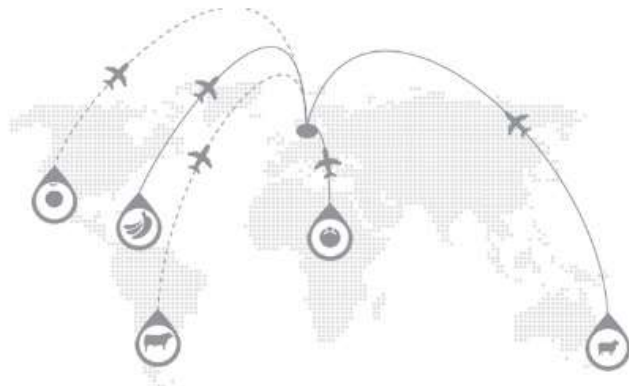
ReGen Villages at Dusk



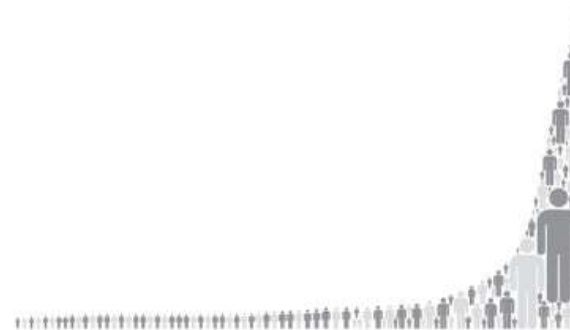
Picture of Daily Life



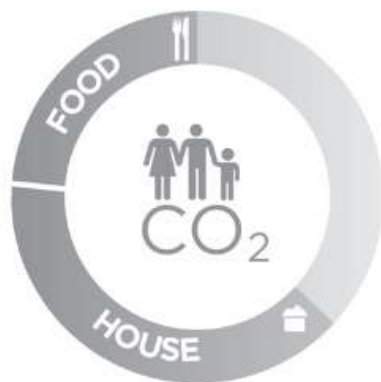
The Problem



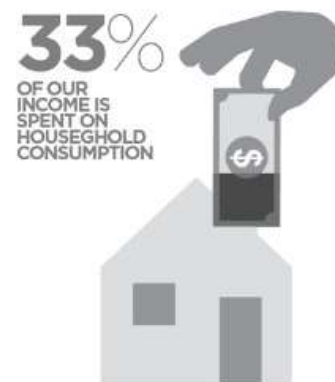
On average vegetables travel 2.400 km or 1.500 miles from farm to consumer, causing an extra 12% emissions prior to consumption.



With a growing population and an emerging middle class, demand for food is ever increasing, calling for smarter and more resilient solutions to feed the world.



Meanwhile, 66% of our environmental impact is directly related to home activities, consumption of energy and food ingestion.

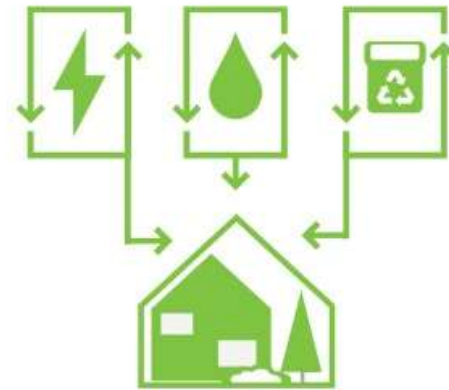


33% of our income is spent paying for our household consumption - rent, energy, heating, water and food. We spend half our waking hours paying for this.

New Architecture for Homes



Instead of us working for our home, we envision a home that works for us...



... producing an abundance of clean energy, fresh healthy food and water for everyday consumption.

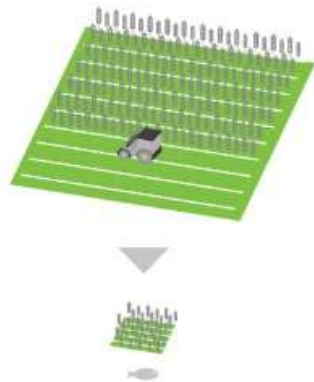


The technology exists. it is just a matter of applying science into the architecture of everyday life.



Regen Villages is a model for local community-based farming and habitation, ensuring supply and sustainability on site.

Aquaponic Advantages



Using aquaponic farming systems we can decrease land use by 98%.



... freeing up space for biodiversity and permaculture.

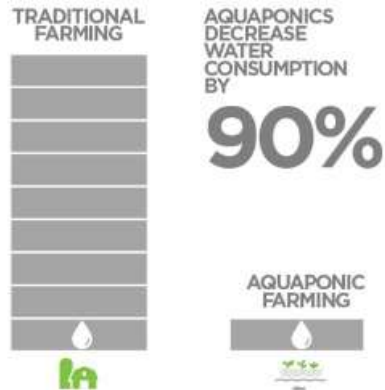


Aquaponics facilitates a more efficient and a 100% organic food production.

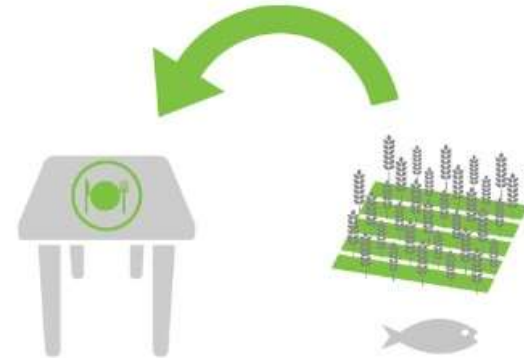


Aquaponics have the capacity to increase yield tenfold compared to terrestrial farming - in the exact same footprint.

Aquaponic Advantages cont.



At the same time decreasing water consumption by 90%



... and eliminating transportation by enabling farm-to-table.



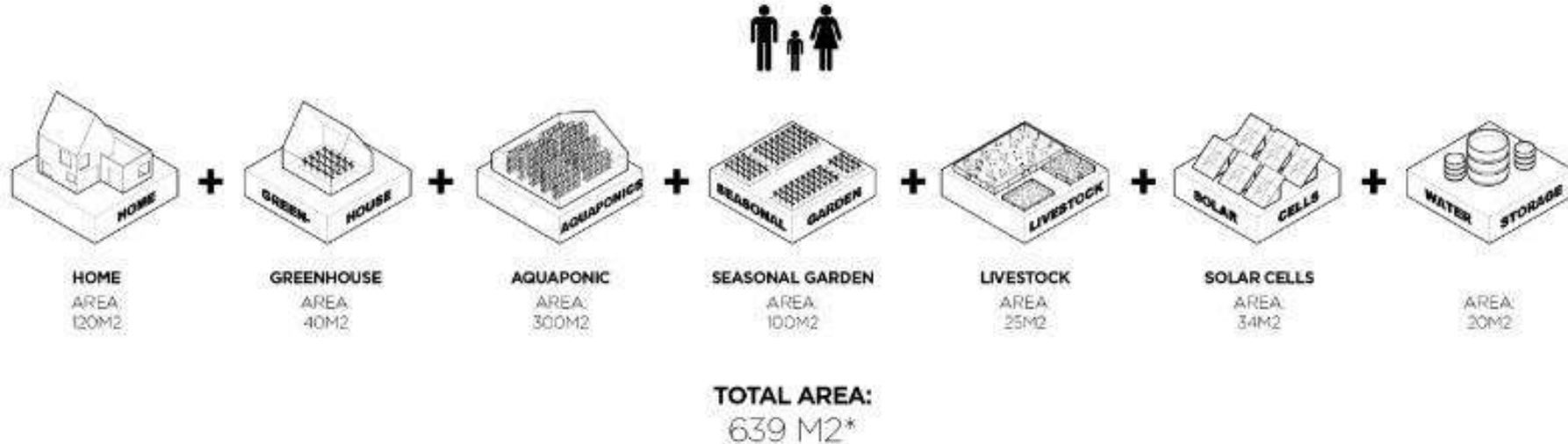
The closed circuit eco-system emits no nitrogen and phosphorus into the surrounding



Creating a village that does not deplete the environment, but restores it.

Area Required for a Family

How much space would a family of three require to be completely self-sustainable in a Regen Village?



*A family of three would require a land area of 8,100 m² to be self sustainable using regular agriculture.

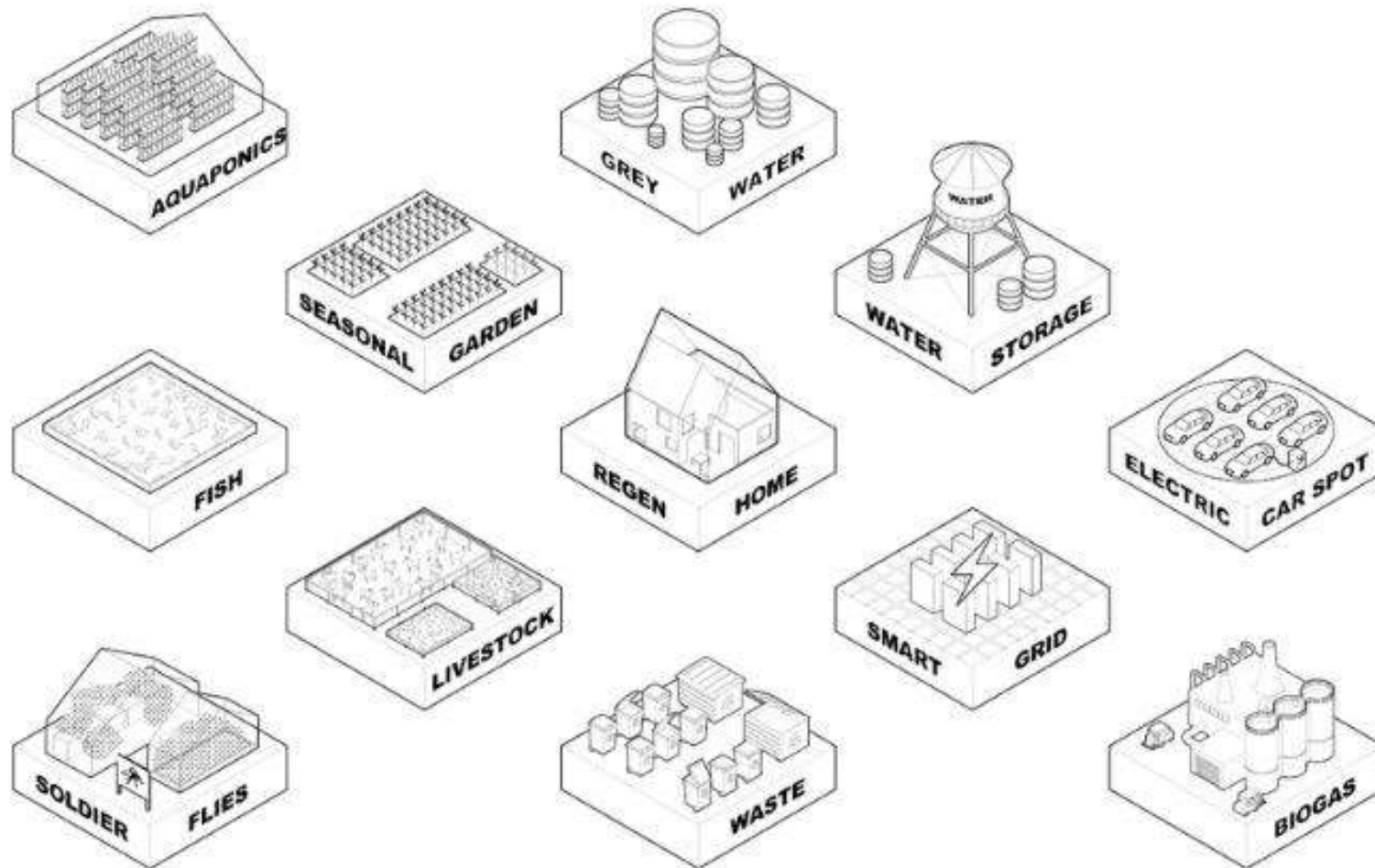
Site Plan



BIODIVERSITY AND SEASONAL GARDENS

BY MINIMIZING THE FOOTPRINT OF THE FOOD PRODUCTION AND HOUSING UNITS, WE FREE UP SPACE TO CREATE BIODIVERSITY/PERMACULTURE AND SEASONAL GARDENS. A VILLAGE THAT DOESN'T DEplete NATURE BUT RESTORES IT.

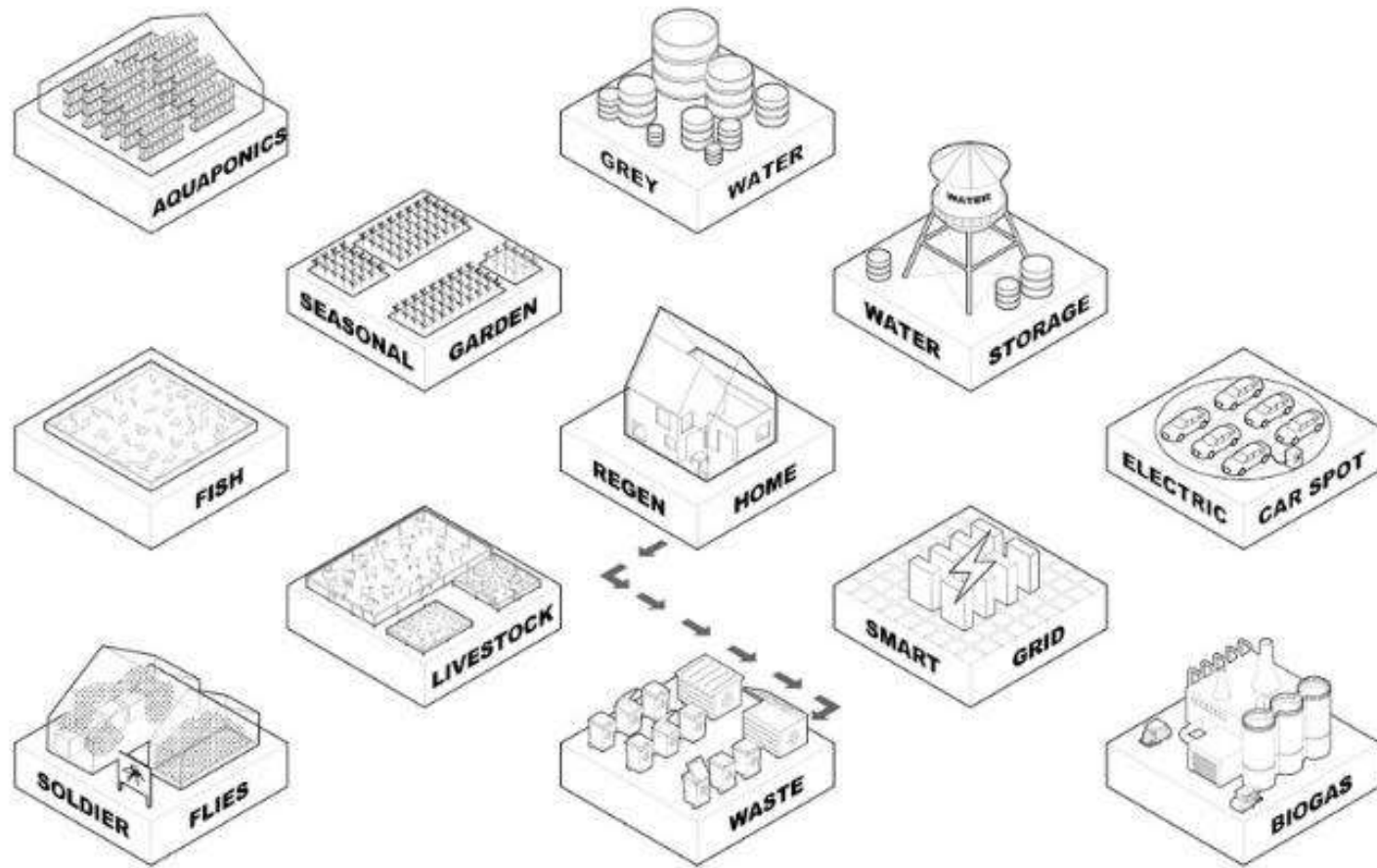
ReGen Explained



REGEN SYSTEM

HOW DOES THE SYSTEM OF THE REGEN VILLAGE WORK

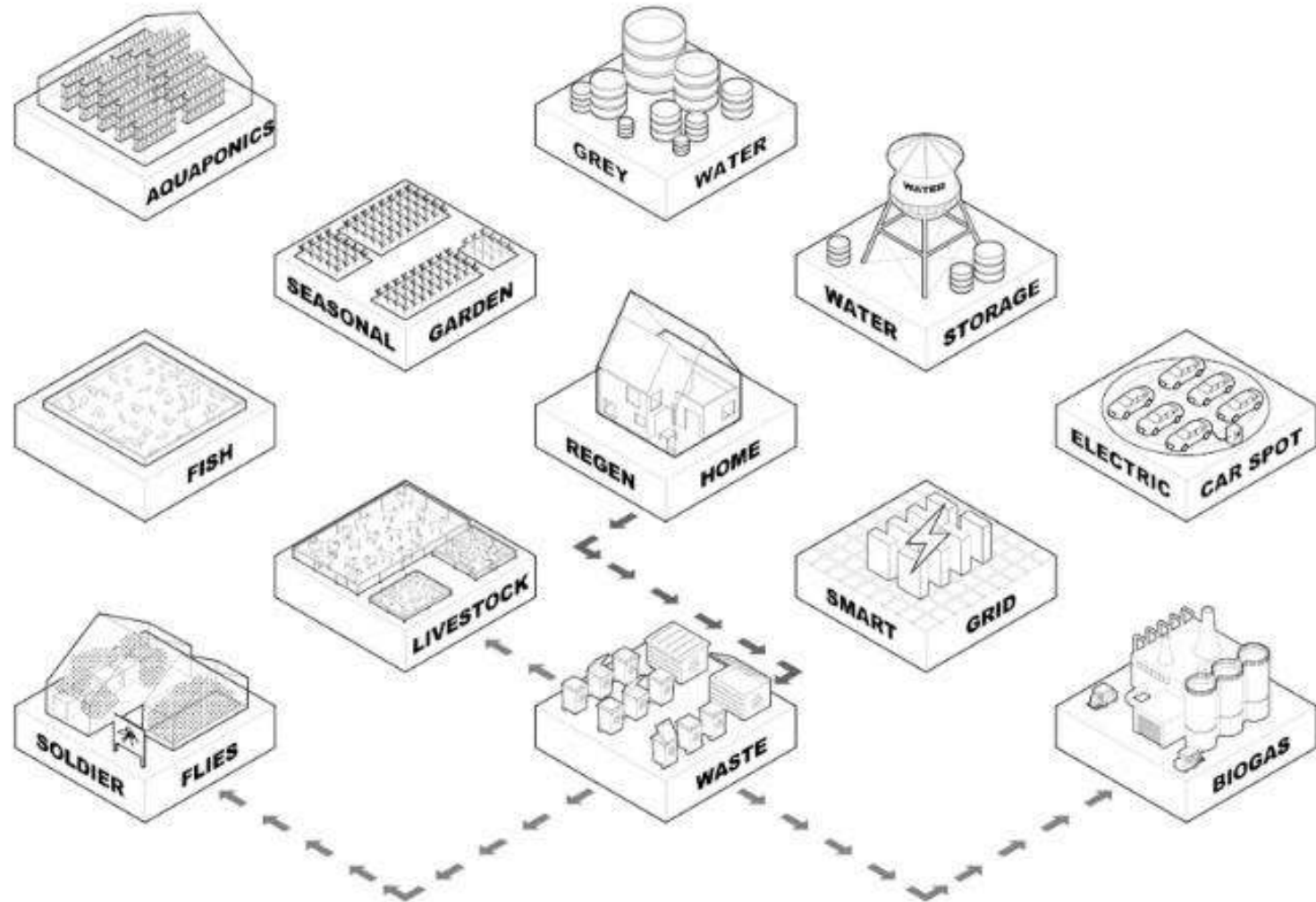
Domestic Waste



WASTE

HOUSEHOLD WASTE IS SORTED INTO DIFFERENT CATEGORIES SO IT CAN BE RE-USED FOR MULTIPLE PURPOSES.

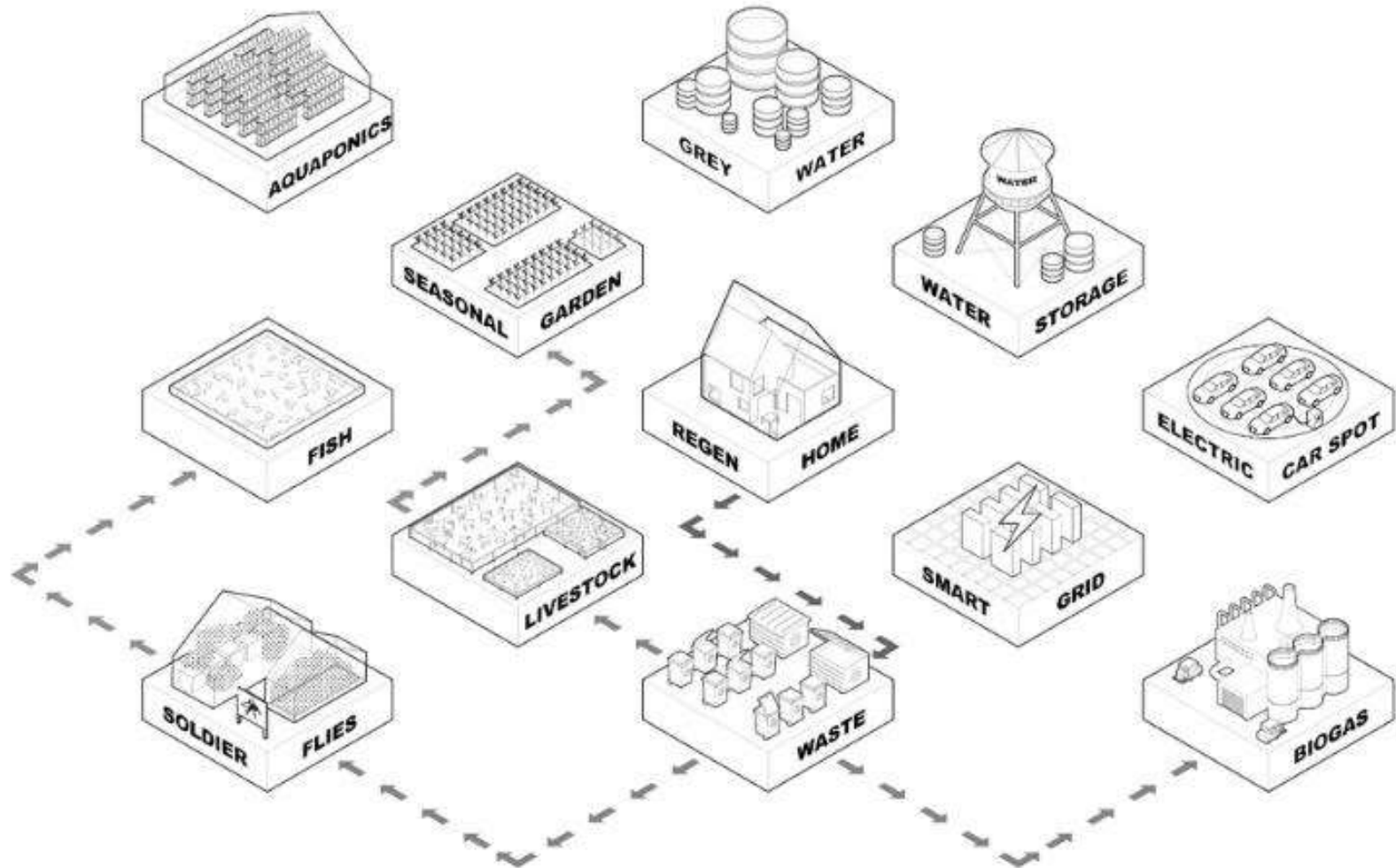
Food Waste - Food for Soldier Flies



WASTE

COMPOST BECOMES FOOD FOR SOLDIER-FLIES AND
AND LIVESTOCK.

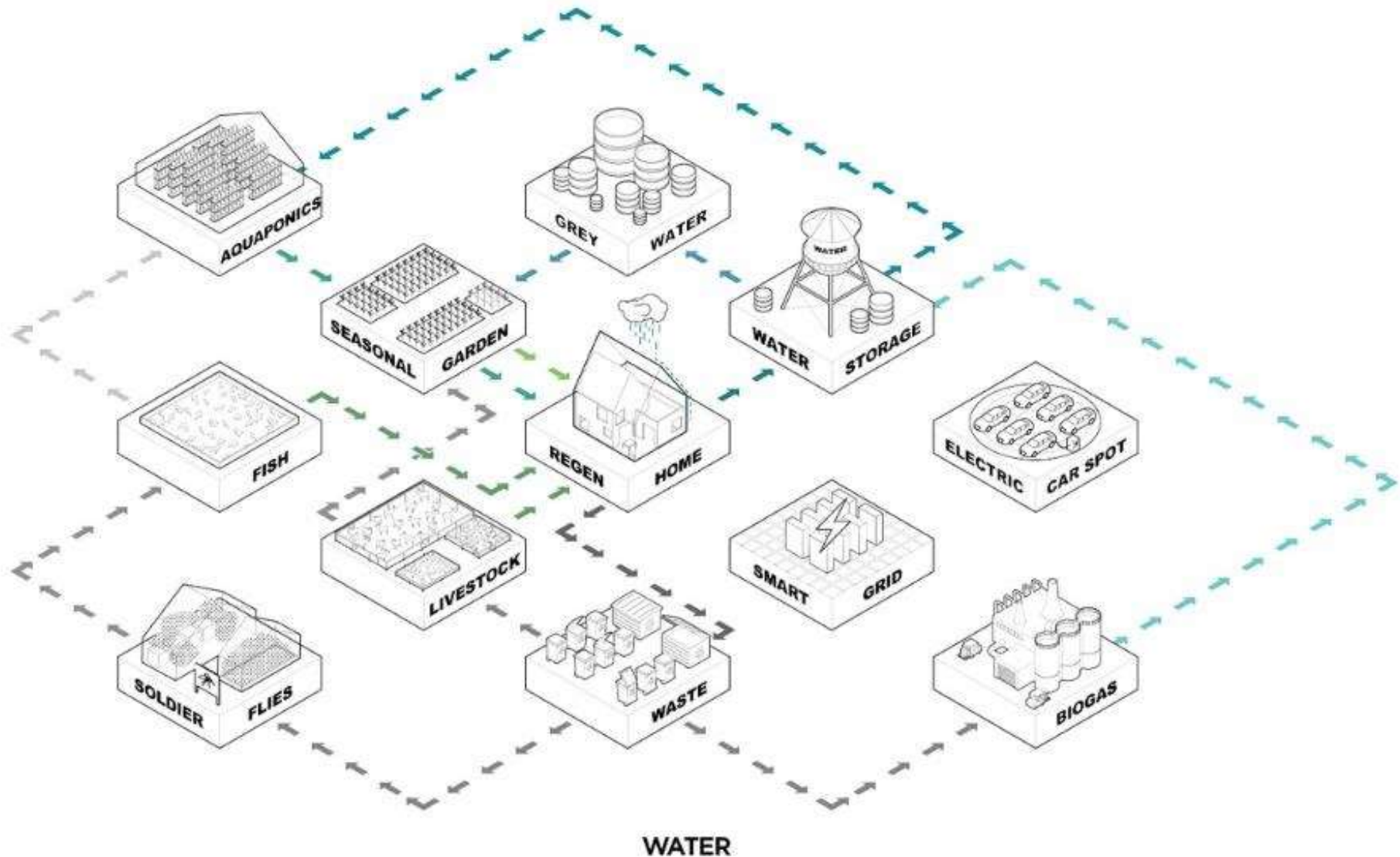
Soldier Fly Larvae Feed to Fish



WASTE

THE SOLDIER FLIES, ARE FED TO THE FISH, AND WASTE FROM LIVESTOCK IS USED TO FERTILIZE THE SEASONAL GARDENS.

Rainwater for Aquaponics



CLEAN WATER FROM THE WATER STORAGE
IS DISTRIBUTED TO THE AQUAPONICS, WHEN NEEDED.

CERES Aquaponics



Silver Perch



DIY Aquaponics



Aquaponic Garden



3 Foot Aquarium



Floating Foam Raft



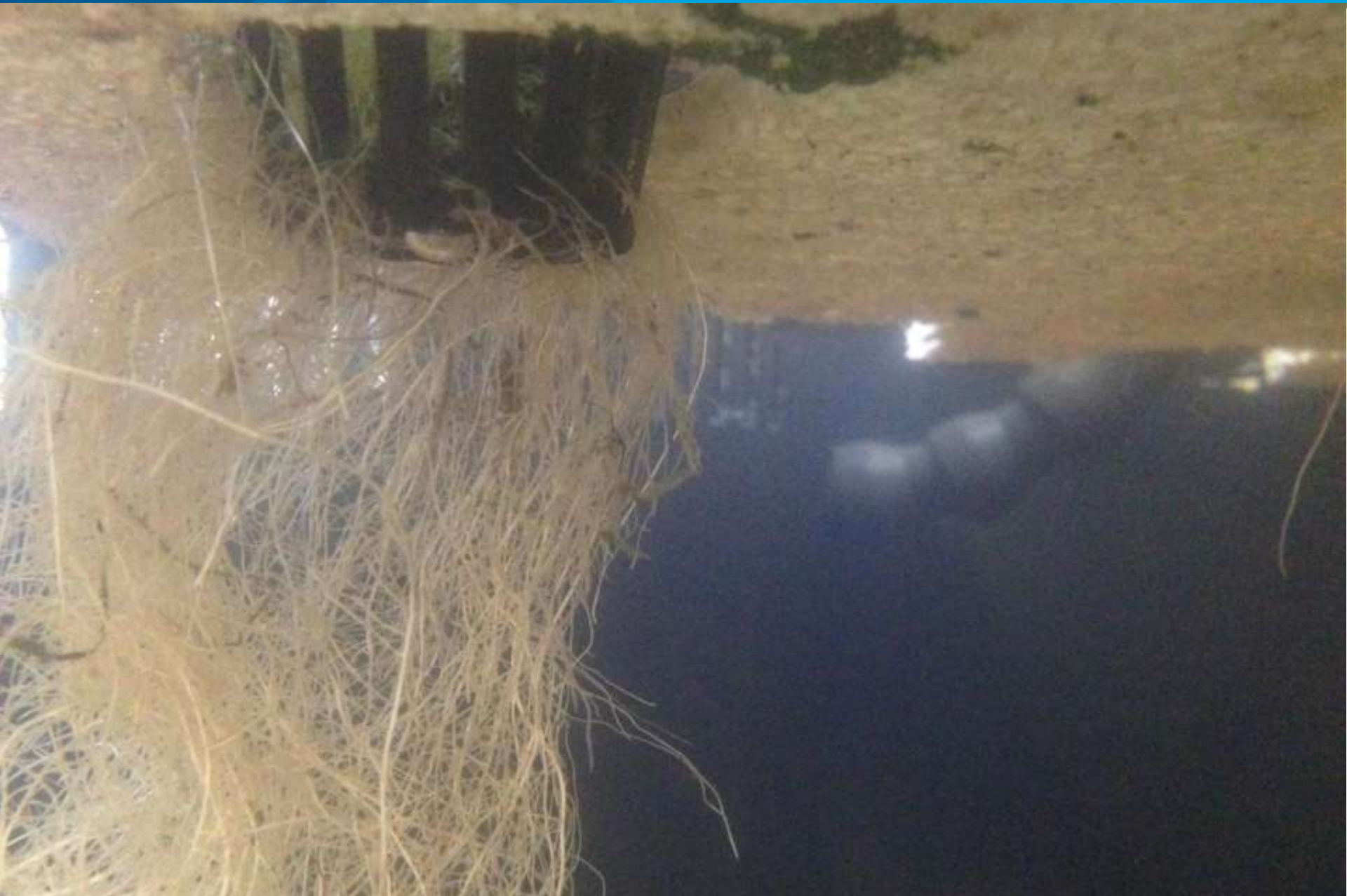
Silver Beet



Rocket



Plant root mass



Fresh Water Mussels



Water Chemistry and Bacteria



Text Messaging 3G

