

GROWING POWER URBAN FARM



Two-tier hydroponic systems with aquaculture (tilapia and perch) below. Nutrient-rich water is cycled through the system. Greens and Fish are harvested for sale to the public and restaurants



Hydroponic/Aquaculture system with “log-ponic” experiment. Shitake mushrooms are being cultivated on the logs, utilizing the open space in the system.



Vermiculture systems uses thousands of worms to breakdown waste (food, fruit wholesale waste, wood chips, etc). Worms castings are used for growing greens in the greenhouse.



Rainwater is collected and used to raise perch in the stormwater tank. Water is also drawn off for use inside the greenhouse aquaculture systems.

MMSD—Jones Island—Milorganite Plant



From the control room, 1 person operates the entire MMSD system, covering 400 square miles of service area, including 28 municipalities. Sewage can be transferred between 2 treatment plants 10 miles apart. It also controls the 27 million gallon Deep Tunnel, located 300 feet underground.



The secondary separator removes solids and sends them to the Milorganite plant. Water continues to the tertiary treatment ponds.

MILWAUKEE PUBLIC LIBRARY 'GREEN' ROOF



Solids in the Milorganite plant are dried from 5% solids to 95% solids using a belt press and tumbling driers. Final product is bagged at marketed as a soil amendment.



The Green Roof at the Milwaukee Public library wasn't green with vegetation yet, but demonstrated how open space can be used to reduce stormwater discharges. Roof holds 50-90% of a rain event. Roof solar panels provide 11% of the libraries electric needs.