

GREEN MACHINES

CASE STUDIES OF CITIES FULL OF LIFE

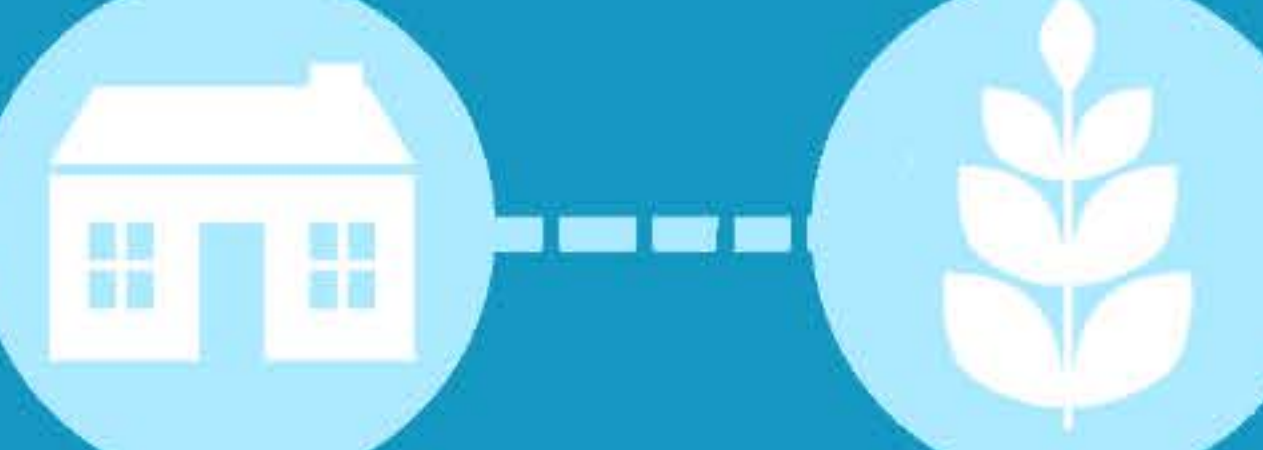
Systems, both natural and human made, function side by side. "Green machines" as we describe them, are cities that use nature and its ecosystem services to protect and maintain our urban environments.

Here you'll discover some cases studies that highlight unique and innovative examples of how cities are: a place for urban biodiversity, connect spaces, and foster meaningful partnerships.

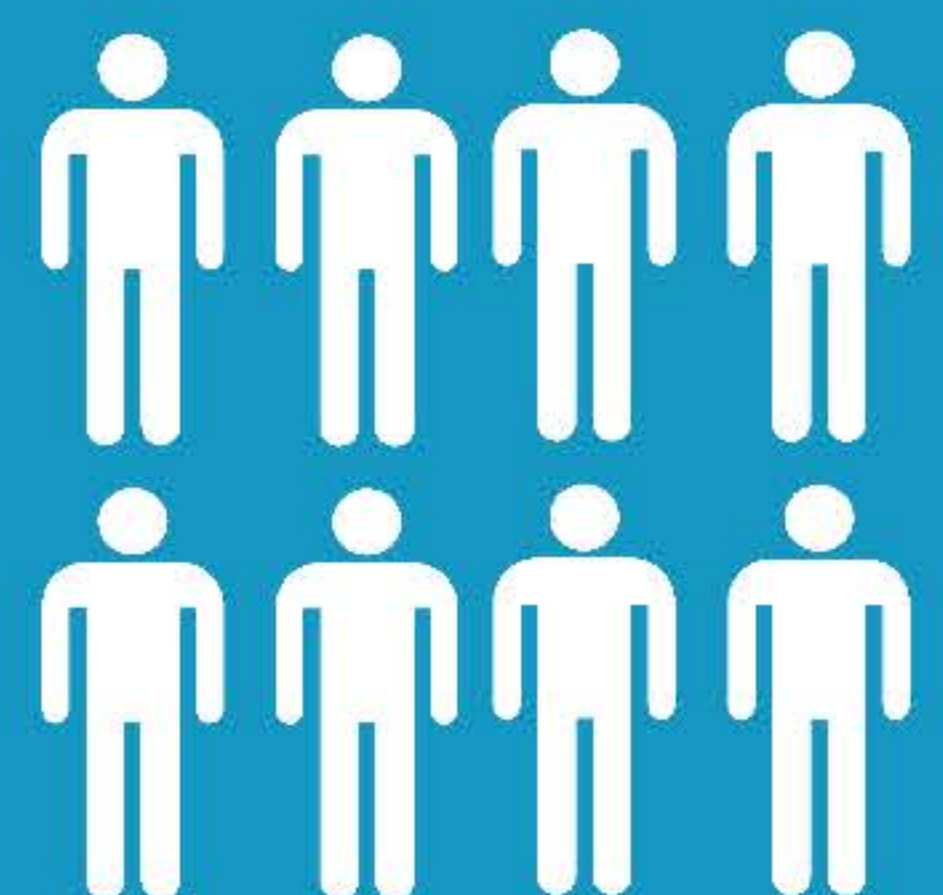
URBAN BIODIVERSITY



CONNECTING SPACES



PARTNERSHIPS



FIRST, DID YOU KNOW THAT THESE TERMS...

ECOSYSTEM GOODS & SERVICES PROTECTION

NATURAL CAPITAL
GREENSPACE MANAGEMENT
RESTORATION
CONSERVATION

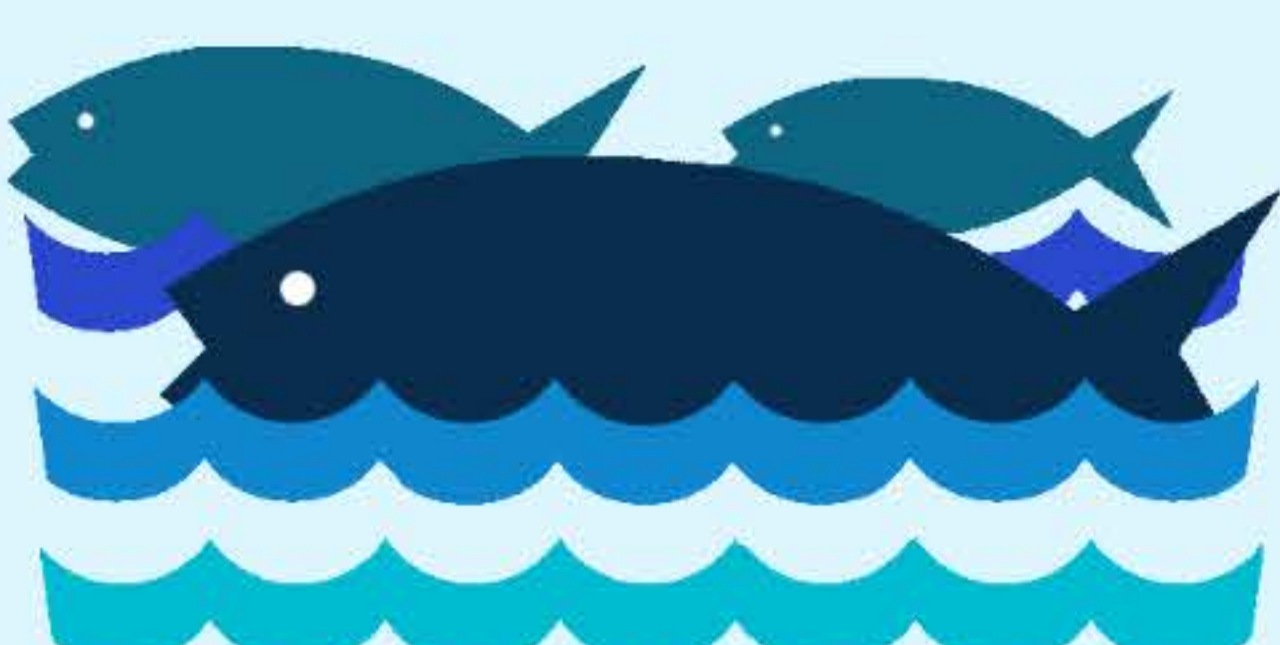
...ARE ALL USED TO DESCRIBE BIODIVERSITY INITIATIVES.

URBAN BIODIVERSITY

PUDGET SOUNDS COLLABORATION

Shoreline Rehabilitation

1/3 of saltwater shoreline in pudget sound has displayed shoreline modification and habitat destruction.



As a response, different levels of government, educational institution and homeowners collaborated to the increase efforts in restoring riparian vegetation and salmon habitat at the Seattle shorelines.

CITIES & GREEN ROOFS

Being the first city to introduce a greenroof bylaw in Canada, Port Coquitlam's enthusiasm has affected mega-retailers. Walmart is joining the cause and building a 151,290 sq. ft. greenroof.

Introduced in 2008, Toronto's green roof by-law has created more than 135 green roofs to date. That's 119, 755 sq. ft. of green roof spaces!

The Green Zone amendment allows for rooftop green houses on New York City's 1,200 acre of space. This increases local food production in a highly urban area.



2006
Port Coquitlam



2008
Toronto

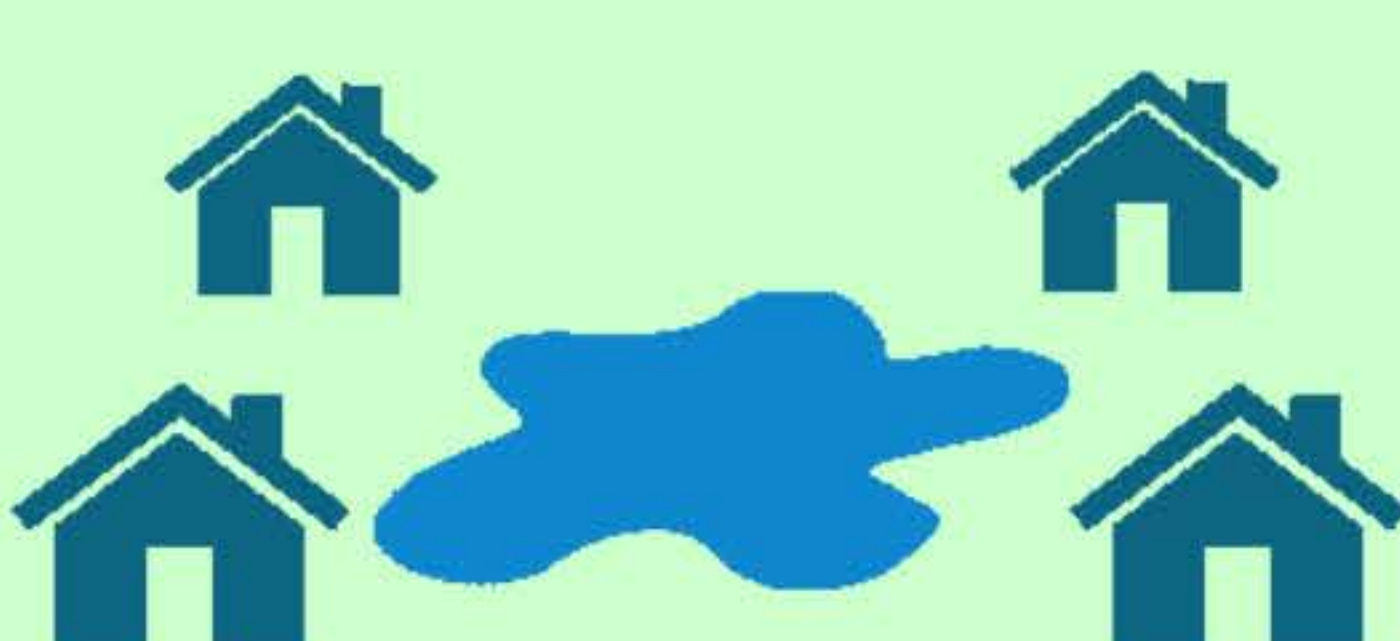


2012
New York

Connecting Spaces



Cuyahoga Falls, Ohio has been impacted by chronic flooding in the last decade. Collaborating with federal, county government and residents, the city set up a pilot program that converted 4 houses into a major bioretention rain garden. Each garden that can filter up to 30, 000 gallons of water!



24 SQ FOOT



Increasing numbers of abandoned gravel pits in Brampton, Ontario have led the city to transform 12 former gravel pits into the Esker Park System, an interconnected park stretching 7km.

7 KM

Since the City of Burlington, Ontario took ownership of the abandoned Nelson quarry, the city has complete a series of rehabilitation projects to create the Kerncliffe Park. This park features trails and naturalized area that acts as a wildlife corridor for humans and animals.



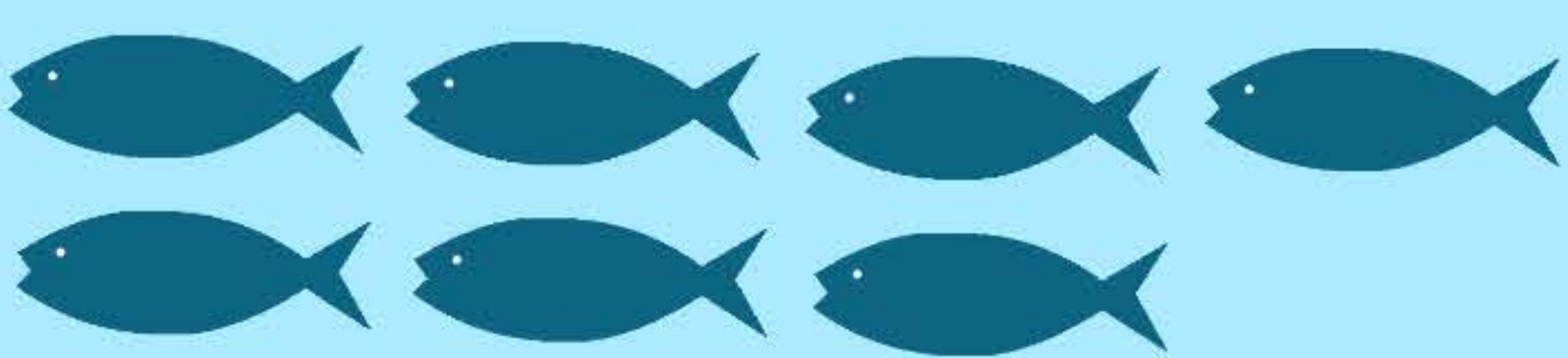
99 ACRES

Partnerships

EXTERNAL COLLABORATION

CONSERVATION

Collaborating with non profit organizations and different levels of government led to



7 TIMES THE AQUATIC GROWTH

in Ottawa's Second Marsh wetland

AGRICULTURAL MILESTONE

From 1997 to 2010, genetically engineered (GE) plants have expanded to the point that they cover 1, 480 000 km of land. That's enough to cover the State of New York!

GENETIC ENGINEERING FREE ZONE



In 2012, collaborative efforts from City of Richmond, British Columbia and related interest groups led to the ban of GE crops in the region and the strengthening of regulation on remaining GE crop farms.

INTERNAL COLLABORATION

HABITAT COMPENSATION

Efforts in habitat compensation has led to the City of Port Coquitlam, British Columbia, and the Ministry of Environment and Fisheries and Oceans to work together, forming a

23 ACRE

habitat to protect the bald eagle's nesting grounds.



COMMUNITY ENGAGEMENT



In Scotland, government owned natural areas are accessible to everyone. Rangers look after the countryside, encourage responsible access and use of the outdoors, welcome visitors, and educate on the local environment.

In most cases, Rangers are local residents or active community members. Today, there are more than 400 Rangers, employed by local authorities, NGO's, private land-owners, and community groups.

Visit our website: <http://www.iclei.org/canada>

ICLEI
Local Governments for Sustainability