

An aerial photograph of a city, likely Tel Aviv, showing a dense urban area on the left, a river (the Yarkon River) flowing through the center, and a large green park area on the right. The city is built on a hillside, and the sea is visible in the background.

Water and Planning: the Fluid Challenge

World Town Planning Day Online Conference

6-7 November 2013

Urban Waterfronts

Keynote Presentation

Amos Brandeis, Israel

Panelists

Nick Schofield, Australia

Njeri Cerere, Kenya

Piotr Lorens, Poland

Gayle Wood, Canada

Urban Waterfronts

Amos Brandeis



Ambassador of the International Riverfoundation (IRF, Australia)



**ISOCARP member (International Society of City and Regional Planners)
and General Rapporteur of it's 50th Congress (Poland, 2014)**



Former Chairman of Israel Planners Association (2006 - 2012)



Architecture, Urban & Regional Planning Ltd

Presentation Index

1. Introduction
2. Deterioration and Restoration of Rivers
3. What Makes Waterfronts Successful?
4. Planning principles for Waterfronts
5. Conclusions
6. How to Become Involved



Urban Waterfronts

**Almost all cities around the world were built along rivers,
or along a coast of an ocean, sea or lake.**

Waterfronts are actually everywhere!

They have a vital urban role and they are a major asset.

North America



New York, Hudson River

Asia



Shanghai, Huangpu River

Australia



Brisbane, Brisbane River

Europe



London, Thames River

Africa



Kongoussi, White Volta River

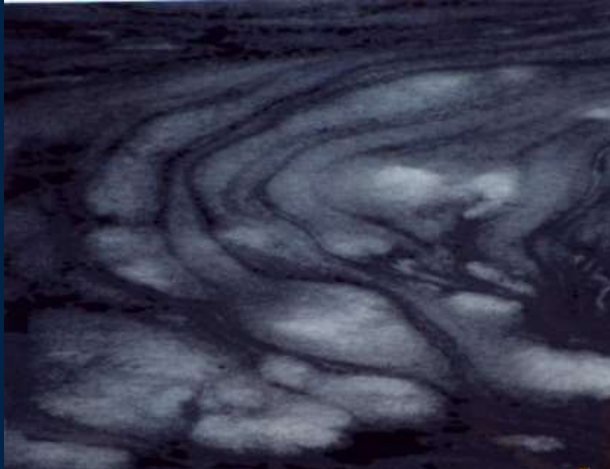
South America



Buenos Aires, Rio de la Plata River

Deterioration of Rivers

During the 20th century many of the rivers have been polluted, deteriorated, and they lost their significant roles. The rivers became a nuisance to the urban environment.



Restoration of Rivers

In recent years, major efforts of river restoration have brought many rivers back to life.



Before - 1996



After - 2013

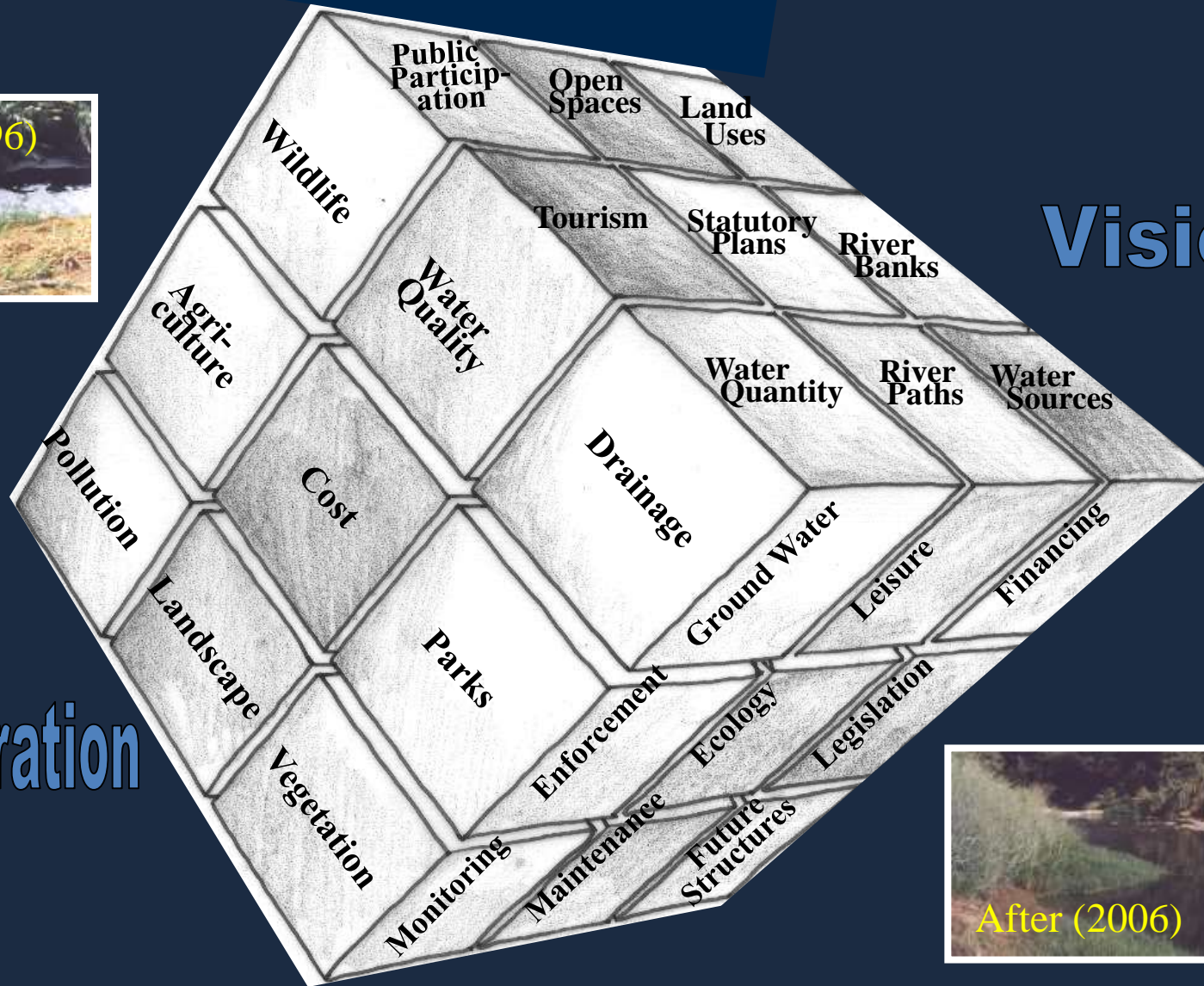
**Alexander River Cross border river - Collaboration between Israeli and Palestinian neighbors.
Planning and Managing: Arch. Amos Brandeis**

Restoration of Rivers and Urban Waterfronts

**River restoration is on the catchment (basin) level.
Urban areas are usually just a very small part of the
catchment, even in the case of urban rivers.**



A Comprehensive and Interdisciplinary Approach - To Restore a River is Like Solving the Rubik's Cube



Vision



Restored Rivers and Urban Waterfronts

The restored rivers, flowing through both historic and new parts of cities, can become an “Urban Celebration”.



Mersey River, First Winner of the International Riverprize (1999)



Urban Waterfronts

**The place in the city for the people to meet and enjoy.
A huge urban potential.**



Hong Kong Light and Sound Evening Show

What Makes Waterfronts Successful?

**Not only beautiful, but also alive.
Part of the Urban Structure and life.
What makes places successful?**



Hobart Waterfront, Tasmania

How to Plan a Successful Waterfront?

**No planning prescriptions. Every place is different.
Planning principles can be defined based on analyses of case studies.
These should be critically examined when planning a waterfront.**



Barcelona

Public Participation

The best (and actually the only) way to plan an urban waterfront, is with the people who live there and use/will use the place. They can best define what they need and want & what are the key values.



Ecological Island, New Zealand



Michmoret, Israel



Alexander River, Israel



Yavne, Israel)



Rahat (Bedouins), Israel

Arch. Amos Brandeis



Lake Bam, Burkina Faso

www.RestorationPlanning.com

Planning Principles - Urban Planning Scale

**Planning must begin on Urban and even Metropolitan scale:
Planning, not only Urban Design, Architecture or Landscaping.
Definition of the role and vision on a wide scale.**

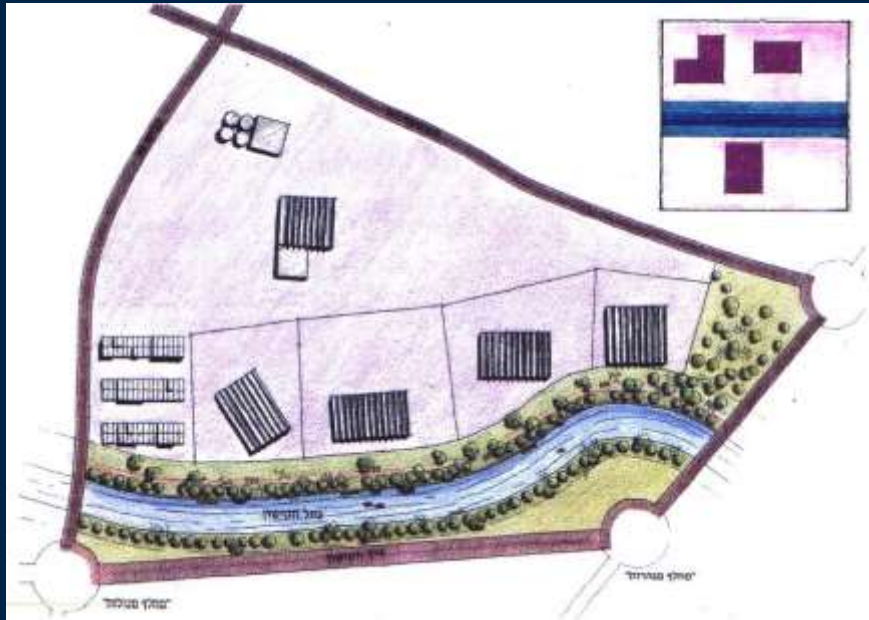


Kishon River, Israel

Planning: Arch. Amos Brandeis

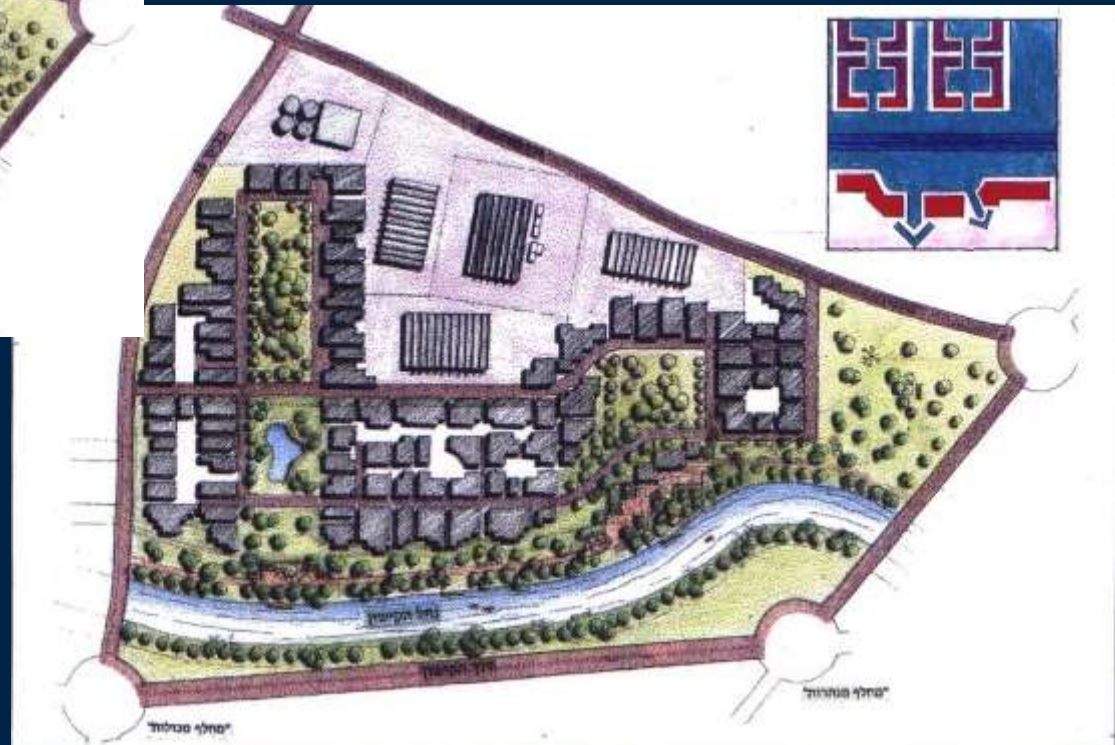
Mixed Uses and Variety of Urban Activities

Mixed uses are essential to make a place alive 24/7.
Liveable cities are based on the presence of people...



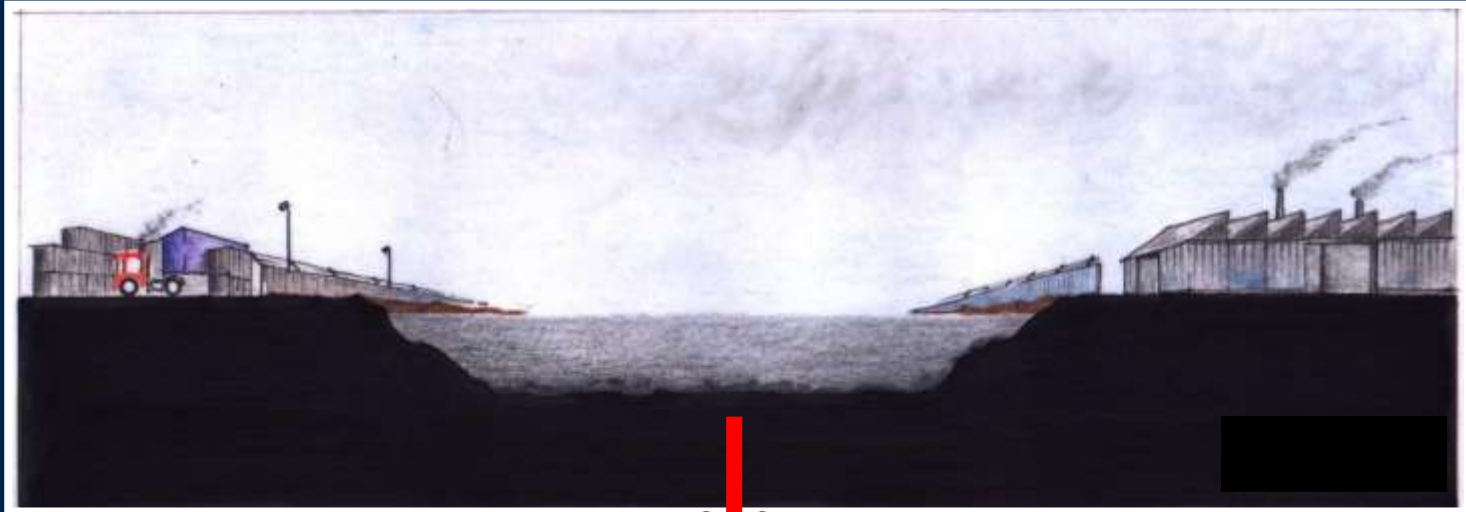
Kishon River, Israel

Planning: Arch. Amos Brandeis



Public versus Private

**The waterfront belongs to the public.
Open, accessible, free entrance, continuous**



Proportions

Human proportions of buildings, squares, and open spaces.

Prague, The Czech Republic



Budapest, Hungary



St. Julian, Malta



Prague, Czech Republic



The Water is the Resource

The People should experience and feel the water close as possible.



Thailand



Gothenburg, Sweden

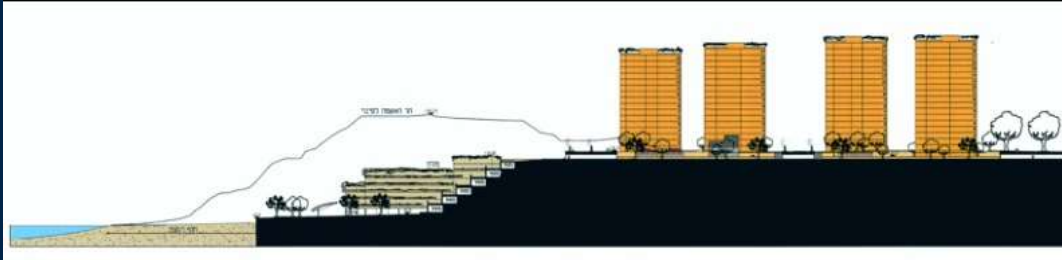
Open Views to the Water

The water is the show. Water is always changing. Fascinates people.



“Amphitheatre” with Open View to the Water

The water must be visible from as many buildings and public spaces.
The people are the spectators.



Netanya, Israel

Planning: Arch. Amos Brandeis

Transparent Waterfront

The buildings should be transparent and use the advantages of looking at the water and the promenade.
No “sealed” buildings on the water edge



Sydney Opera, Australia

Promenades

**Promenades are for People. Not for cars to ratrun.
A place to enjoy, relax, walk, run and cycle.**



Northbank - Brisbane, Australia



Southbank - Brisbane, Australia

Outside Seating

Promenades, terraces, food & view.



**Fremantle (Perth)
Australia**



Budapest, Hungary

A Livelihood Promenade

Urban life...
A place to enjoy.
A celebration...



Amsterdam, Netherland



Fremantle, Australia



Bergen, Norway

24/7

Alive 24/7. Urban celebrations start at night...



Brisbane (Riverfeast), Australia



The Bund, Shanghai, China



Sydney, Australia



Pudong, Shanghai, China

People Friendly

People friendly attitude. This place is for people...



Local & Regional Values

Respect, preservation and strengthening of local values and atmosphere



Hobart, Tasmania

Local Flavor



Bergen, Norway

Working Waterfronts

Preservation of activities: fishing, ships & boats, docklands, small businesses, etc.



Maine, USA



Auckland, NZ

Built Heritage

A delicate integration of built heritage and new development



Existing Urban Patterns and Buildings

Restoration of urban patterns and buildings, with waterfront orientation, and creation of attractive flavor and sense of entity



Melbourne,
Australia



Sydney, Australia

Public Institutions

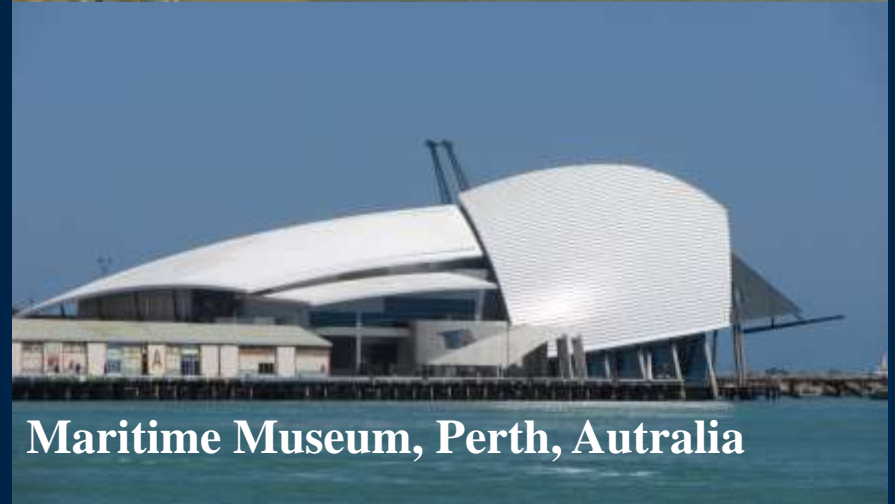
**Important public buildings on the waterfront,
to attract local people and tourist, and become a lively place.**



NEMO Science Museum, Amsterdam



London



Maritime Museum, Perth, Australia

Urban Landmarks / Icons



Sydney Opera



Copenhagen Opera



Gorham Opera



Oslo Opera

Connections to Built Urban Environment

“Green Fingers” into the depth of the urban surrounding pattern - parks, boulevards, paths, bicycle routes, axis, etc.

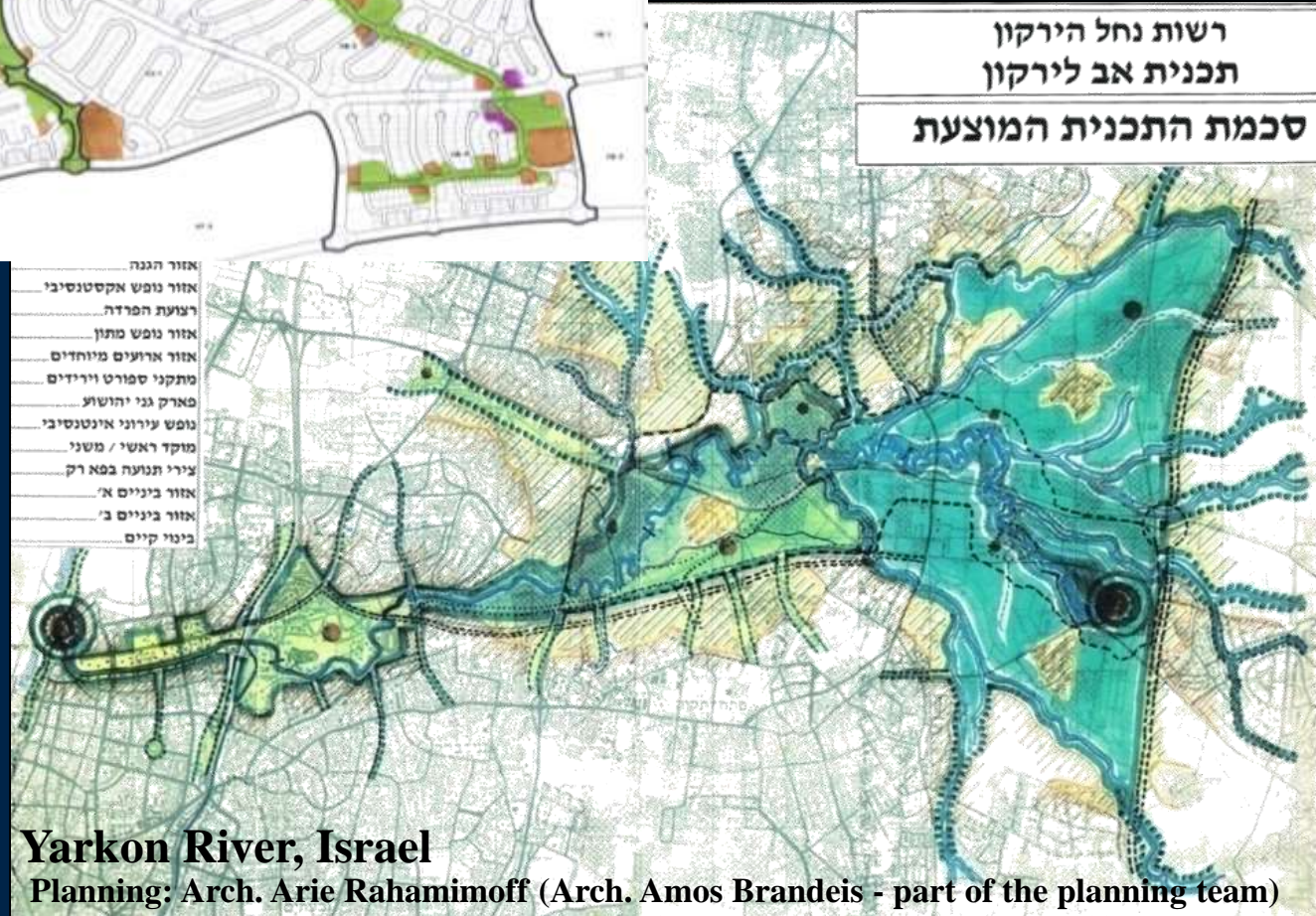


Rahat, Israel

Planning: Arch. Amos Brandeis



Freemantle, Australia



Yarkon River, Israel

Planning: Arch. Arie Rahamimoff (Arch. Amos Brandeis - part of the planning team)

Landscaping

**High quality and people friendly landscaping.
Climate sensitive. Use of local plants. Good maintenance.**



Art



Copenhagen, Denmark

Urban Nature

Design of some areas in the middle of a city, where people can feel in nature. A pause from the urban pace.



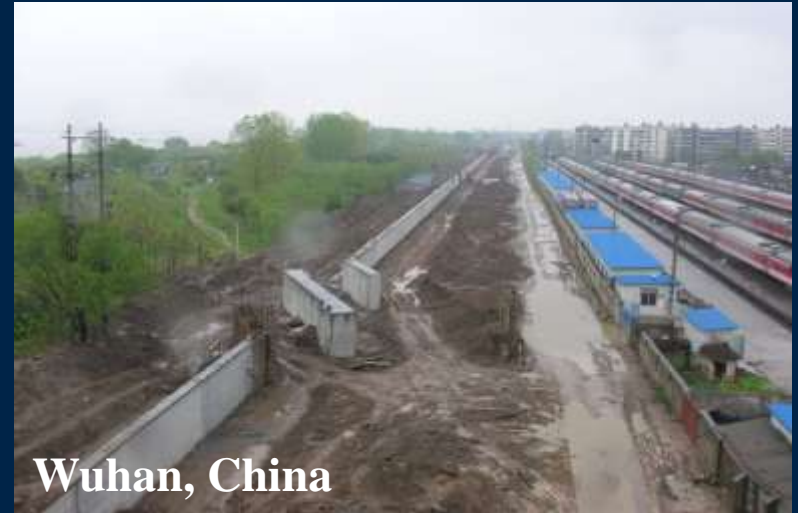
Yarkon River in Tel Aviv

Overcome Challenging Linear Infrastructures

Plan innovative ways to connect cities to their waterfront, despite challenging linear infrastructures.



Budapest, Hungary



Wuhan, China



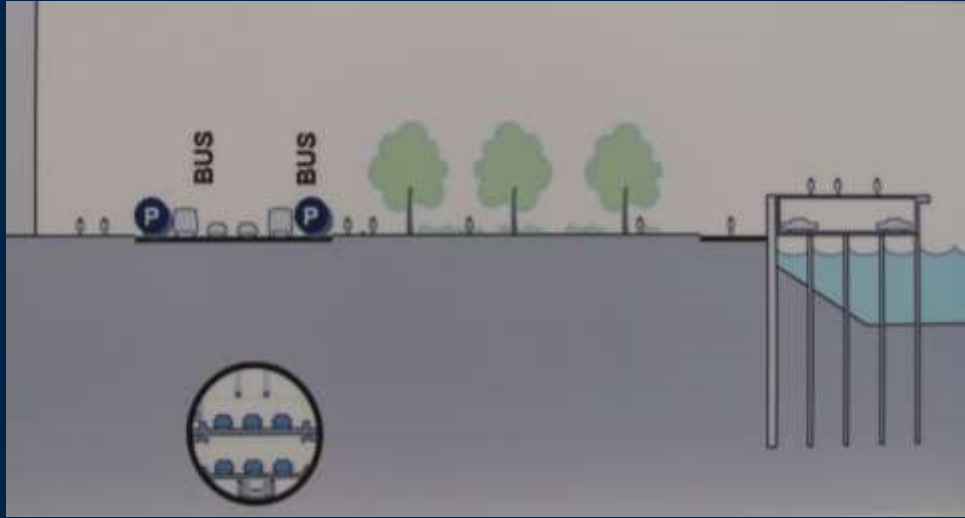
Bergen, Norway



Spain

Overcome Challenging Linear Infrastructures

Plan innovative ways to connect cities to their waterfront, despite challenging linear infrastructures.



The Bund, Shanghai

Uniqueness

Riverfestival - world known international river city



Brisbane, Australia

Conclusions

1. Waterfronts are an extremely important urban asset - they can become an “Urban Celebration”.
2. Successful waterfronts champion urban development, economic growth, and contribute to a liveable and sustainable city.
3. Most successful case studies of waterfronts represent: good planning, sense of place, delicate balances, and uniqueness.
4. Principles for successful planning of waterfronts can be defined, but should be critically examined, as every place is different.



Invitation to be part of the global Urban and River networks and activities

ISOCARP

**International Society of City
and Regional Planners**

**50th ISOCARP Annual
World Congress**

**“Urban Celebrations:
Cities and Water”**

**Gdynia, Poland
22-26.9.2014**

www.isocarp.org

IRF

International Riverfoundation

**17th International
Riversymposium**

**Canberra, Australia
15-18.9.2014**

www.Riverfoundation.org.au



Urban Waterfronts - Panelist no. 1

Dr Nick Schofield, Australia

Has recently joined the International River Foundation as its CEO.

Brings a wealth of experience in water research, management and policy across multiple land uses including urban settings.

Has run 14 major water programs in Australia and undertaken key projects in many other countries.



Water & Planning: The Fluid Challenge

Riverprize Winners and Urban Waterfronts

**Dr Nick Schofield
CEO, International RiverFoundation**

About the International RiverFoundation (IRF)

- River Focused NGO
- Vision: “a future in which every river system around the world is healthy and sustainably managed”.
- Programs: Riverprize, Twinning, River Knowledge, River Recovery
- IRF contribution to sustainable development in urban settings
- Holistic and collaborative approaches to urban waterfront development

Riverprize

- World's most prestigious environmental award
- Awards excellence in river restoration, protection and sustainable management
- Thiess International Riverprize first awarded in 1999



www.riverfoundation.org.au

Sha River, China

Thiess International Riverprize Winner, 2006



- Part of the Minjiang Tributary, flows through Chengdu City.
- Provides 90% of industrial and drinking water for the city
- Pollution, industry and deforestation caused river to be virtually dead by 1999
- Chengdu Sha River Restoration Project – key challenges and achievements (emphasis on urban waterfront)
- Establishment of green belt, relocating residential and industrial precincts away from river
- Improving community attitudes toward the river
- Holistic approach to urban waterfront development
- Outcomes and results



Charles River, USA

Thiess International Riverprize Winner 2011




- 
- Flows through Boston, heavy industrialisation in the 1950's
 - Charles River Watershed Association Established to restore river in 1965
 - Now cleanest urban river in the USA
 - Blue Cities initiative – incorporating natural processes into urban design
 - Understanding the natural function of the river to build a successful waterfront
 - Beneficial results of collaboration and a holistic approach to urban waterfront development

Image: Wikipedia

Conclusion

- Importance of participatory approach
- Sense of place, providing improved social, economic and environmental outcomes
- Successful urban waterfronts provide for healthy and sustainably managed river systems – different approaches achieve same results



Njeri Cerere, Kenya

A planning, development and environmental consultant based in Nairobi, Kenya.

Co-founder and serves as co-executive director of “Naipolitans”, an organization comprised of urban enthusiasts, residents and professionals trying to figure out how, when, where, and what can be done to actualize liveable urban spaces.





Leveraging Urban Waterfronts for Sustainability and Livability

Njeri Cerere
Urban and Regional Planner
Nairobi, Kenya





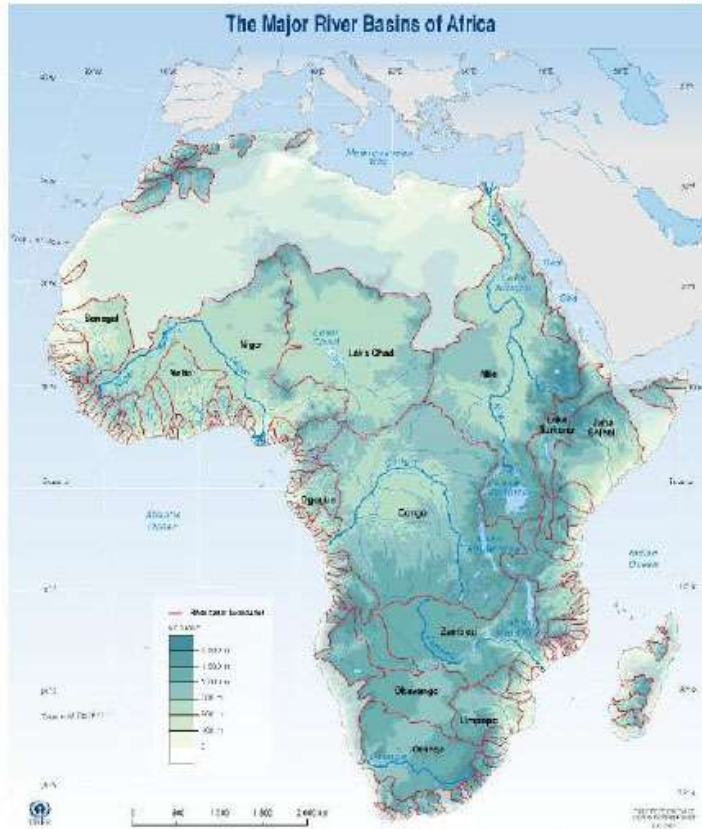
Overview

Managing Waterfronts in Rapidly Densifying Cities



Water is a shared resource traversing geo-political boundaries

05



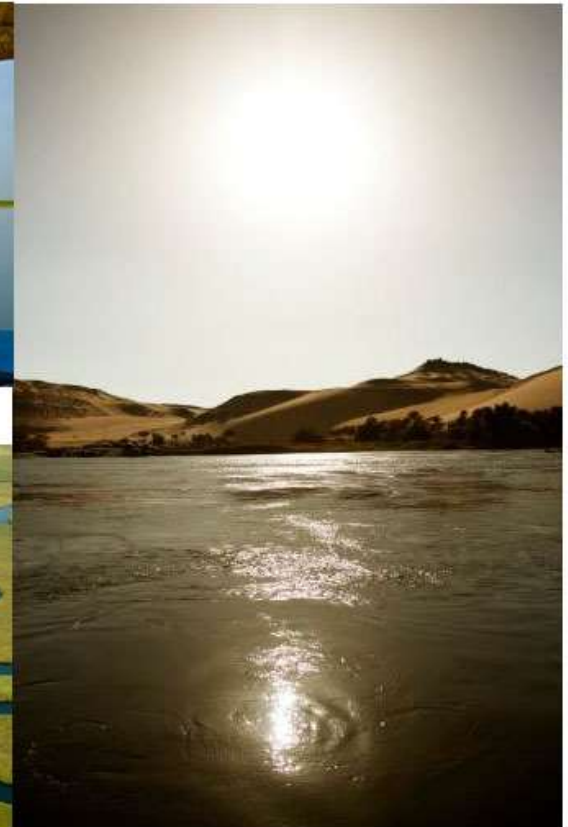
Source: Arno T. W. et al., (2000) *Hydrology of the World: World Hydrological Resources (WHR)*, Washington DC: 938. Philip Pearson et al., *Hydrology of the World: World Hydrological Resources (WHR)*, Washington DC: 938. Philip Pearson et al., *Hydrology of the World: World Hydrological Resources (WHR)*, Washington DC: 938.



Niger River



Okavango River



Nile River

Economies rely on water resources for industry, trade, tourism



Water security drives livelihoods in critical sectors e.g. agriculture



Challenge: Predominantly rural regions now fastest urbanising globally



Cairo, Egypt



Nairobi, Kenya



Lagos, Nigeria



Kinshasa, DRC

Proliferation of informal settlements on environmentally fragile areas



Manshiet Nasser, Cairo, Egypt



Deep Sea, Parklands, Nairobi, Kenya



Makoko, Lagos, Nigeria



Kinshasa, DRC



Leveraging Waterfronts

Reclamation for Sustainability and Livability



Opportunity for substantial social, economic and environmental impact



Nairobi River Cleanup



Improving Livability, Kibera, Nairobi



Reclaimed Land, Kibera, Nairobi

Improving Livability = Investing in Local Economy

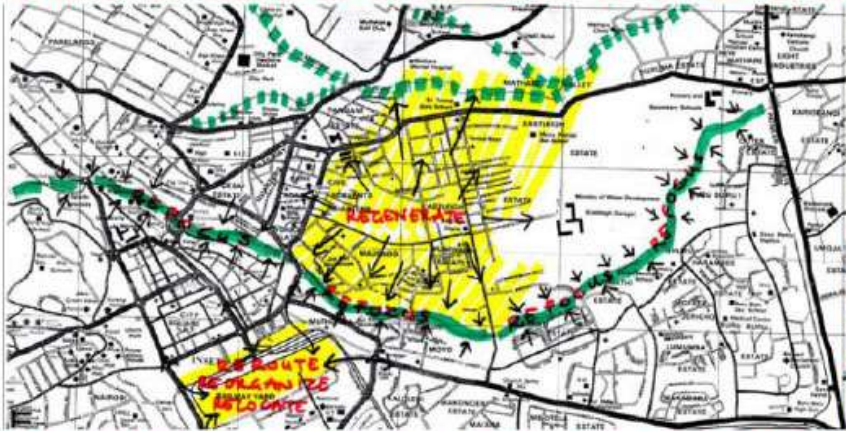


Reclaimed Multi-Purpose Productive Public Space,
Kibera, Nairobi



Reclamation=> Unleashes Creativity => Vibrant, Productive Space

INTERVENTION



NAIROBI CITY : RESTORATION
THE REGREENING OF THE CITY IN THE SUN



Conclusion

- Well managed waterfronts and livability in the face of rapid urbanization are not mutually exclusive
- Urban waterfronts can be leveraged for sustainability (social, economic and environmental impact)
- Stakeholders on all fronts can contribute to creative solutions that enhance livability and vitality in cities



Nile River, Cairo, Egypt



Thank You

Prof. Piotr Lorens, Poland

**Head, Department of Urban Design
and Regional Planning, Gdansk
University of Technology, Poland.**

**Vice President, International Society
of City and Regional Planners.**

**His professional career and research
is focused on issues associated with
urban regeneration and waterfront
redevelopment.**



**Was actively involved in the initial stages of planning for the Young
City project in Gdansk and Gdynia waterfront regeneration scheme.**

Reconnecting City and Water

Redeveloping the Gdynia waterfront

Piotr Lorens

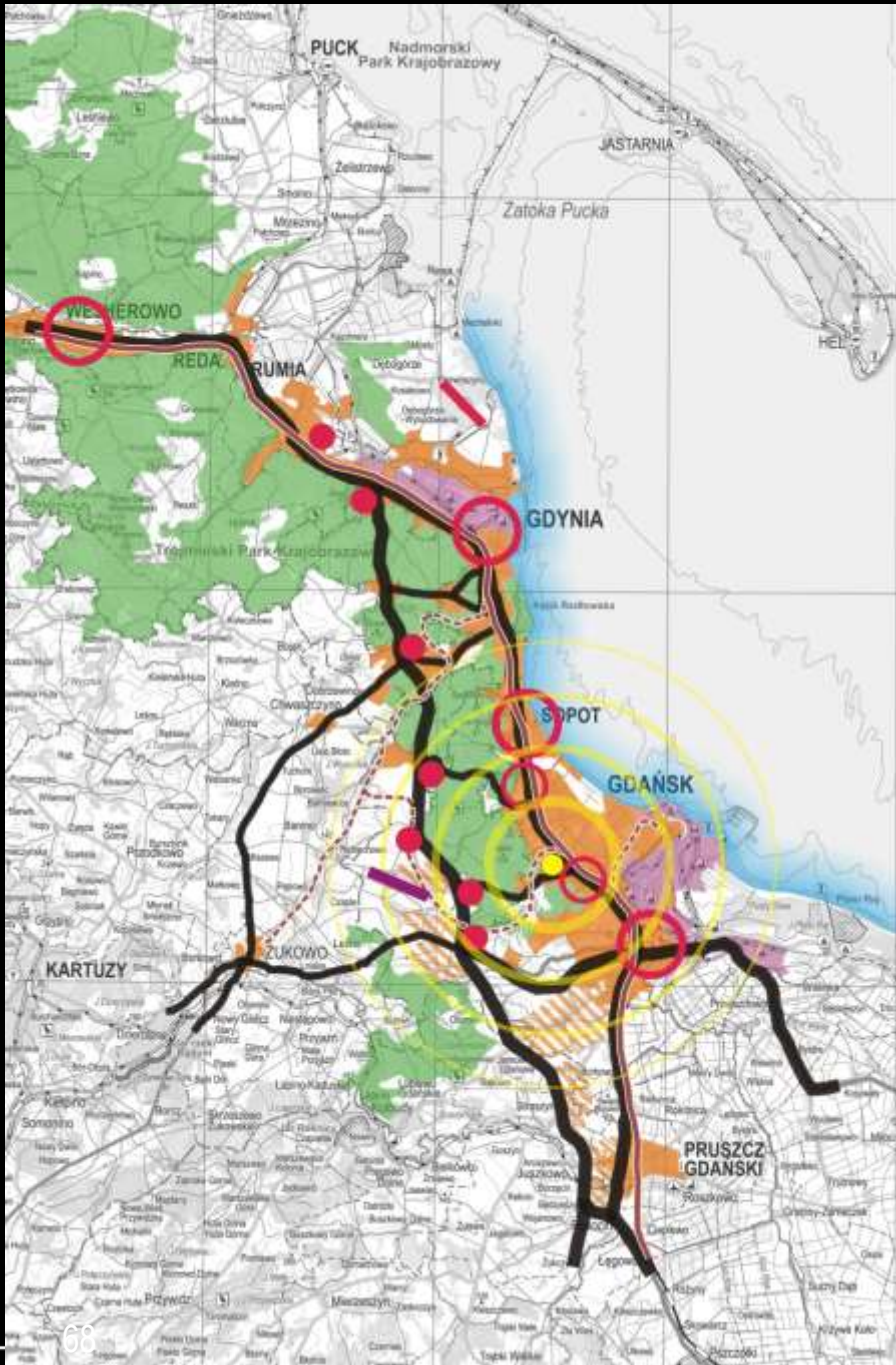
Gdańsk University of Technology

Faculty of Architecture



Structure of the metropolitan area

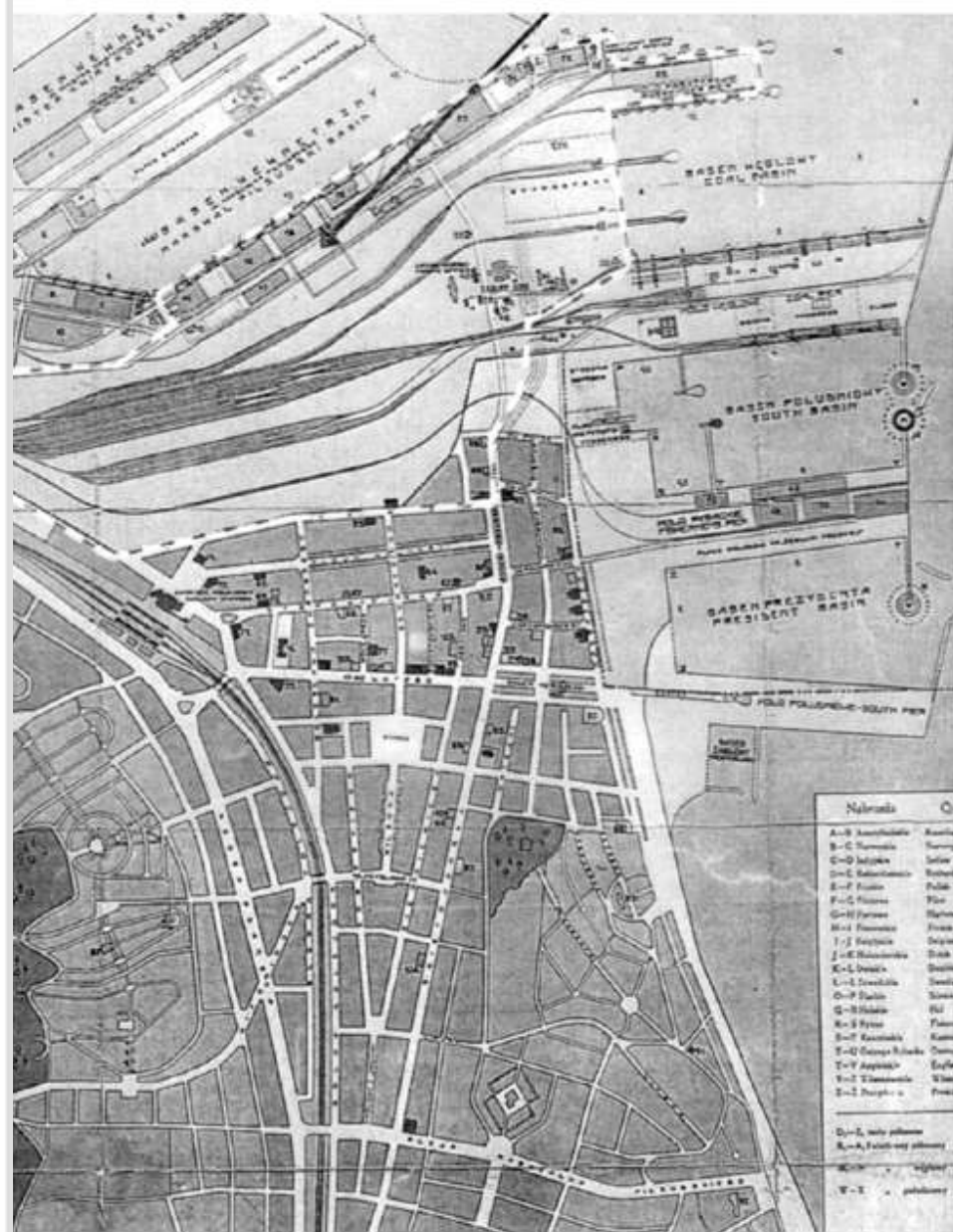
- Gdynia – part of the larger metro area
- Multi-functional urban structures
- Large concentrations of the distressed areas
- Concentrations of the specialized, mono – functional areas
- Clear linear structure of the entire metro area



Basic facts

- City developed in the 1920-ties and 1930-ties as the major Polish harbour
- Form part of the Tri-City metropolitan area (along with Gdansk and Sopot)
- Now undergoing major changes in its waterfront structure
- Key new projects – under development







około 1933



1937



około 1939

Gotenhafen - Herman
Ecke Teufel



2005





Final remarks

- Gdynia – part of the „waterfront metropolis”
- New chances for the metropolitan area – emerging from the transformation of the industries
- Large-scale planning – providing new spatial framework for the urban development
- Gdynia waterfront can provide a new chance for the city – **BRING IT BACK TO THE ROOTS**



Dr. Gayle Wood, Canada

Chief Administrative Officer of Lake Simcoe Region Conservation Authority, Ontario, Canada.

Specializes in Integrated Watershed Planning and Management.

Received the Thiess International Riverprize in 2009.





Lake Simcoe Region
conservation authority

A Watershed for Life

The Importance of Integrated Watershed Planning and Implementation – Ensuring Healthy, Clean Urban Waterfronts

World Planning Day Online Conference

November 6, 2013

D. Gayle Wood
Chief Administrative Officer

Purpose of this Presentation

- To support the presentation by Amos Brandeis which speaks to the health of urban waterfronts being linked to catchment planning and river restoration.

Watershed Planning – Lake Simcoe

- Lake Simcoe Region Conservation Authority
- Watershed agency
- Created in 1951 under provincial legislation
- 35 sub watersheds
- Planning and restoration are done on a sub watershed and catchment basis



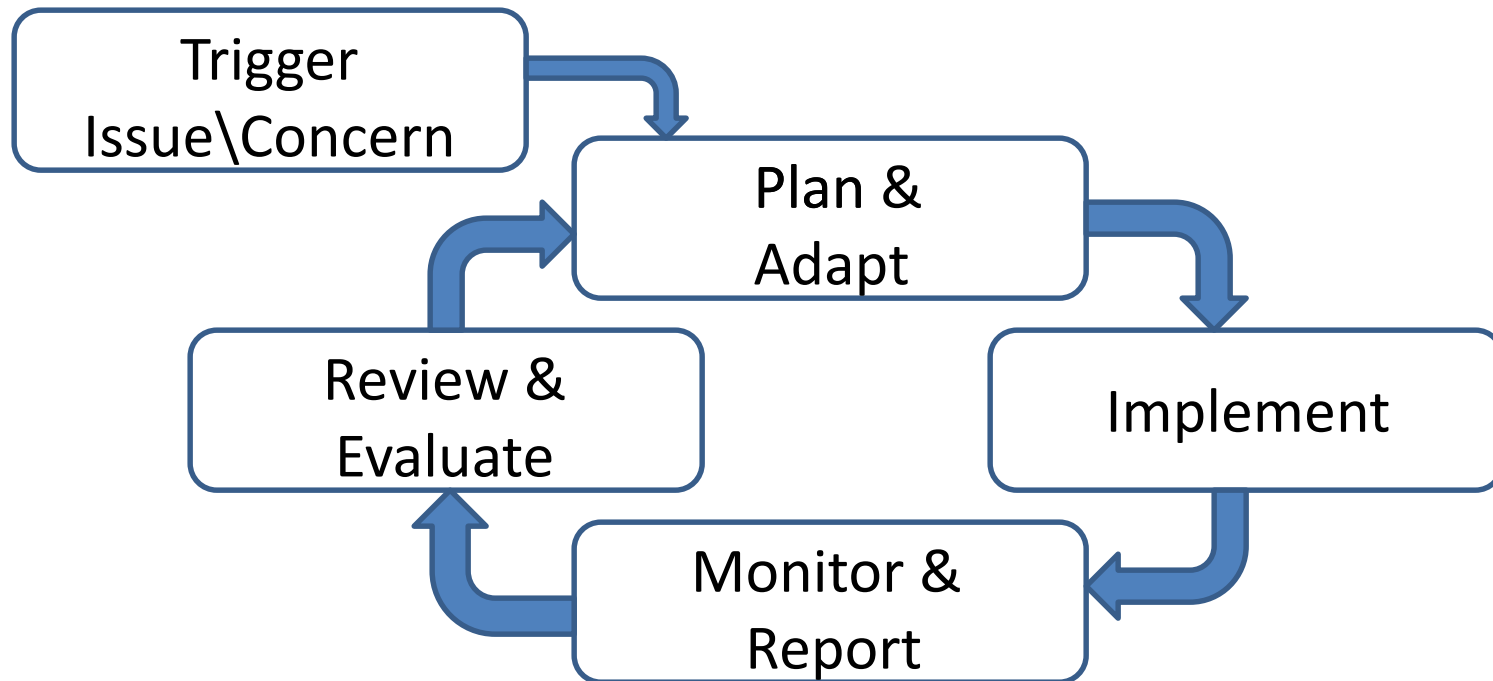
Why Watershed Planning?

- Built on science (defendable)
- Plans involve a collaborative partnership of all government agencies and stakeholders
- Provides clear direction for action “Road Map to Success”



Why Subwatershed Planning?

Utilizes an iterative/adaptive management approach to solve complex water and water related issues.



Watershed Planning – Spatial Scale

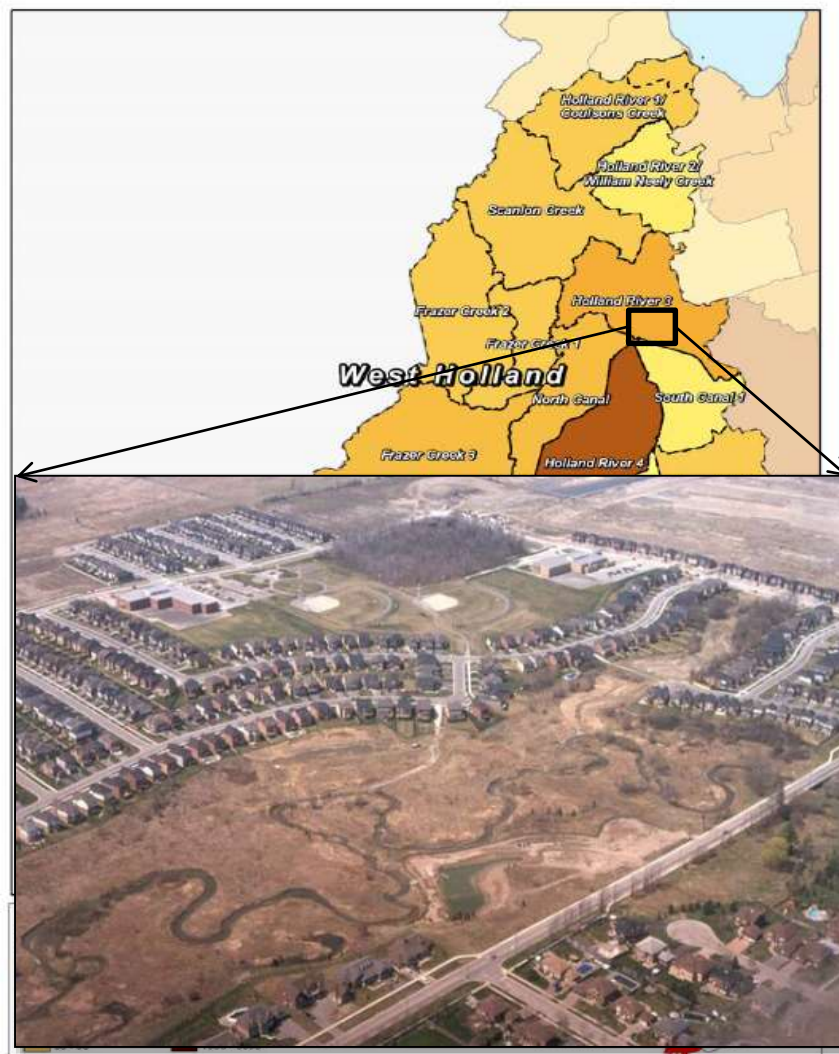
Watershed

Subwatershed

Catchment

Site Level

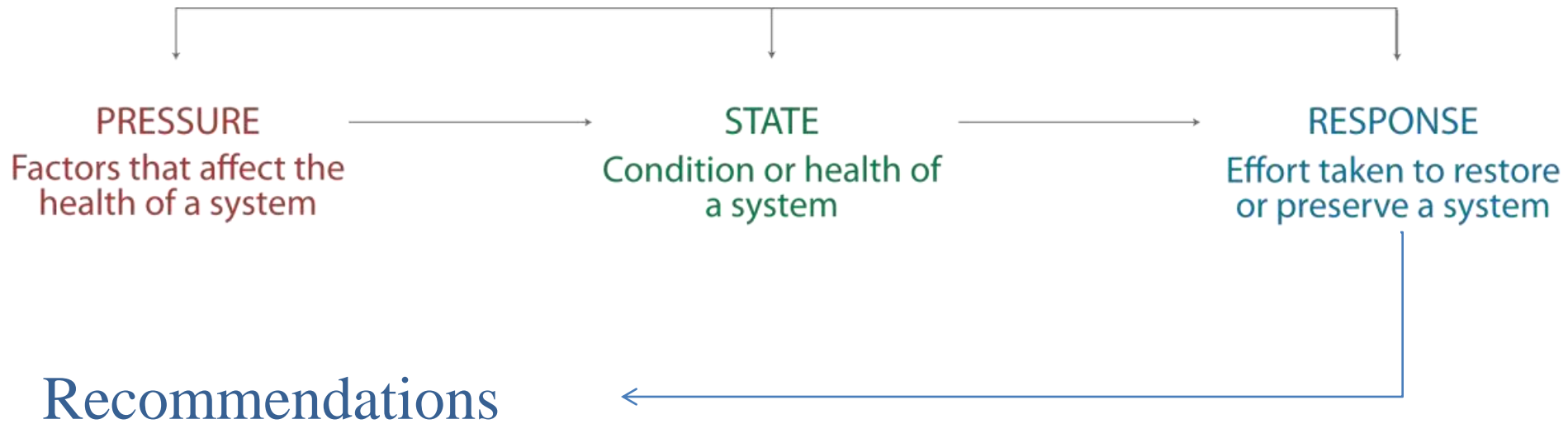
—
Increasing Level of Detail
↓



Effort taken to restore or preserve a system



Plans Use a Pressure – State – Response Approach



Recommendations

A.1 Stormwater Management

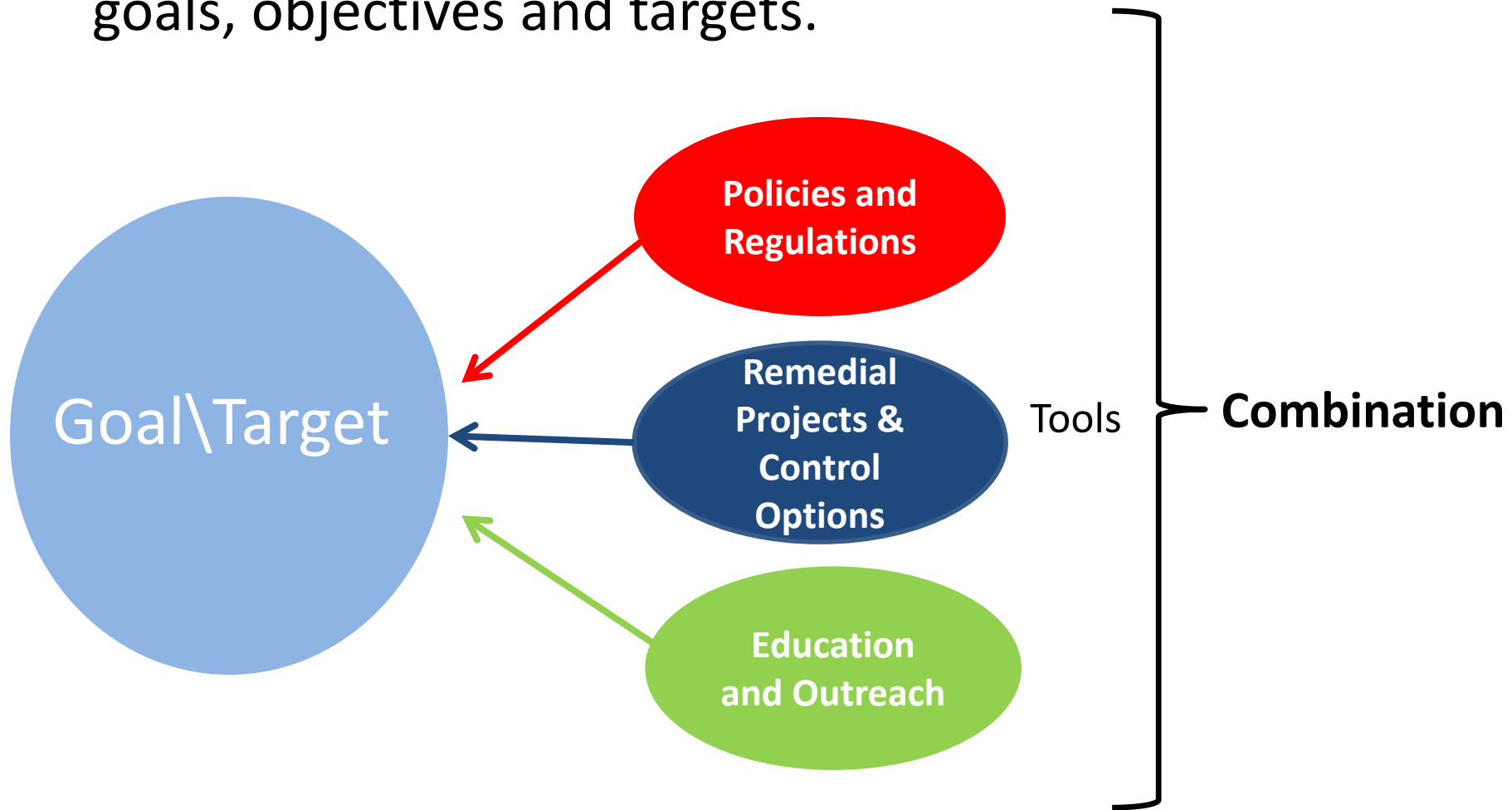
- A.1.1 That the applicable partner municipalities, in conjunction with the LSRCA, develop stormwater master plans that include maintenance schedules and funding requirements, as per the requirements set out by the LSPP
- A.1.2 That the Province of Ontario, through the implementation of the Lake Simcoe Phosphorus Reduction Strategy, provide significant incentive funding to the LSRCA to maintain, construct and retrofit stormwater facilities as identified by the LSRCA Stormwater Rehabilitation program
- A.1.3 That the partner municipalities, in conjunction with LSRCA, re-evaluate stormwater management techniques and practices to determine whether a standard better than Level 1 can be achieved

Develop Interim Watershed Goals

- Based on the analysis results develop interim/draft watershed goals, objectives and targets using **SMART** principles:
 - Specific** - identify clearly 4 w's (what, why, where, who),
 - Measurable** - develop performance indicators,
 - Attainable** - ensure targets can be achieved (cost, tech.),
 - Relevant** – effort is worthwhile (priority),
 - Time bound** - establish a time frame for reaching targets.
- Involve all the partners in the development of goals and test by consulting with the public – revise as necessary.

Identify and Evaluate Strategies/Options

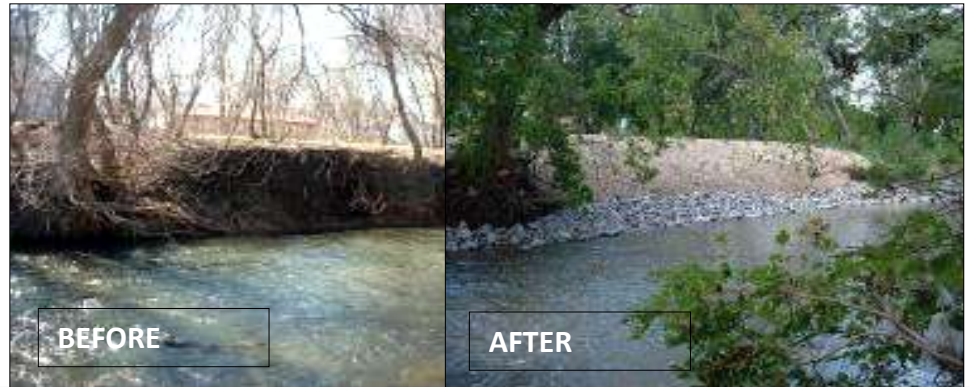
Identify multiple solutions to achieve the draft goals, objectives and targets.



Phosphorus Management: Achievements

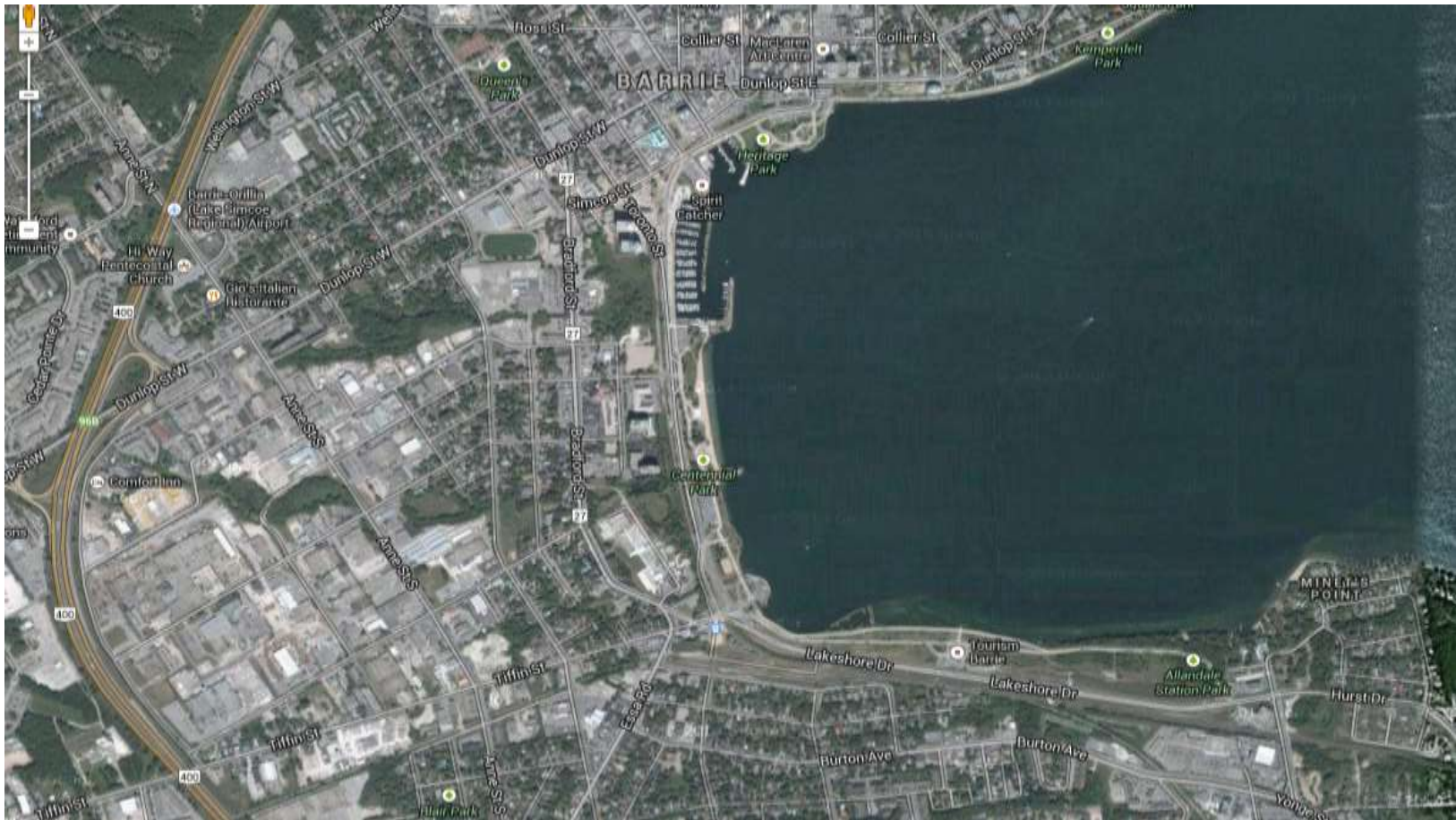
Stewardship

- 2000 projects in 20 yrs
- Estimates phosphorus reduction to be 12 T/yr



City of Barrie Waterfront:

swimmable – fishable – drinkable – natural





Thank you!

Urban Waterfronts Panel



**Amos
Brandeis,
Israel**



**Nick
Schofield,
Australia**



**Njeri
Cerere,
Kenya**



**Piotr
Lorens,
Poland**



**Gayle
Wood,
Canada**

Q & A