

# Green Infrastructure Development

Sydney Australia

Speaker

Matthew Dillon

President - Green Roofs Australasia

eVP - W.G.I.N.















THE ENVIRONMENT



NEEDS YOU

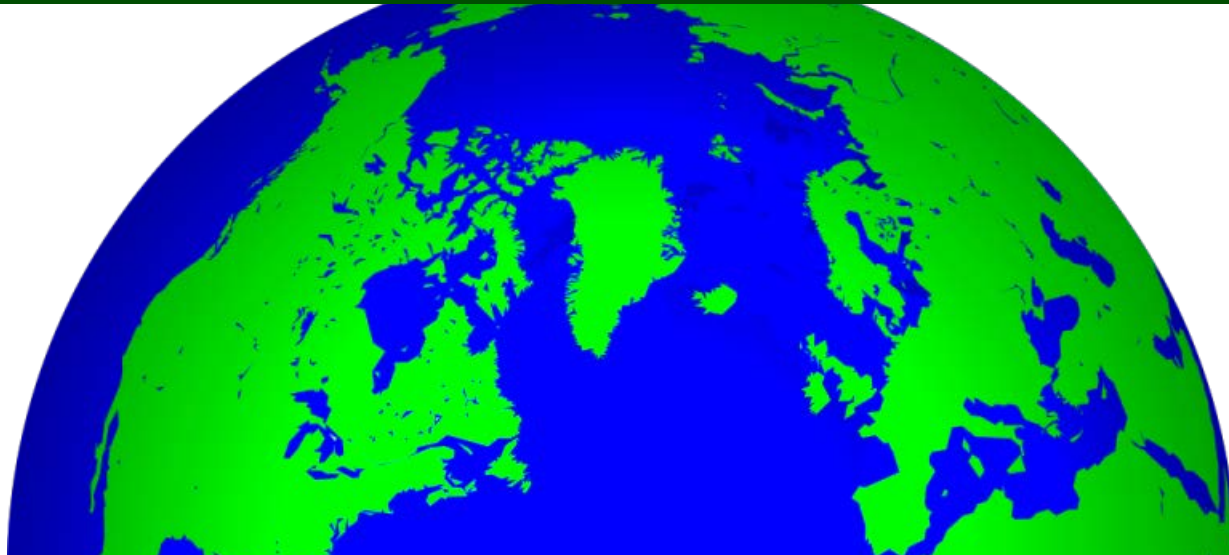
BUT NOT US !



# ANTHROPOCENE ERA



# NATURE IS UNDER ATTACK



URBAN SPRAWL

RAPID EXPANSION

ECOSYSTEM POLLUTION

POPULATION INCREASES

FOOD SHORTAGES

GLOBAL EMISSIONS

SPECIES EXTINCTION

GOVERNMENT POLICY

POLITICIANS

RESOURCE MINING

FOREST CLEARING

LAND FILL

## WE SHARE THE SAME CHALLENGES











# CHALLENGES





LUX

LUX

For all  
Fine laundering



RUBBER STAMP  
FACTORY.

Y Co. LTD  
MACHINES  
APPLIES.  
GRAVING  
GOODS.  
EQUIPMENT.  
IS & PENCILS.

YINDA

DOMINION MOTORS LIMITED



BANK GOVT SAVINGS BANK OF N.S.W.







# GREEN INFRASTRUCTURE

We define Green infrastructure as the natural systems that underpin, and are integrated with our urban fabric

Living Architecture

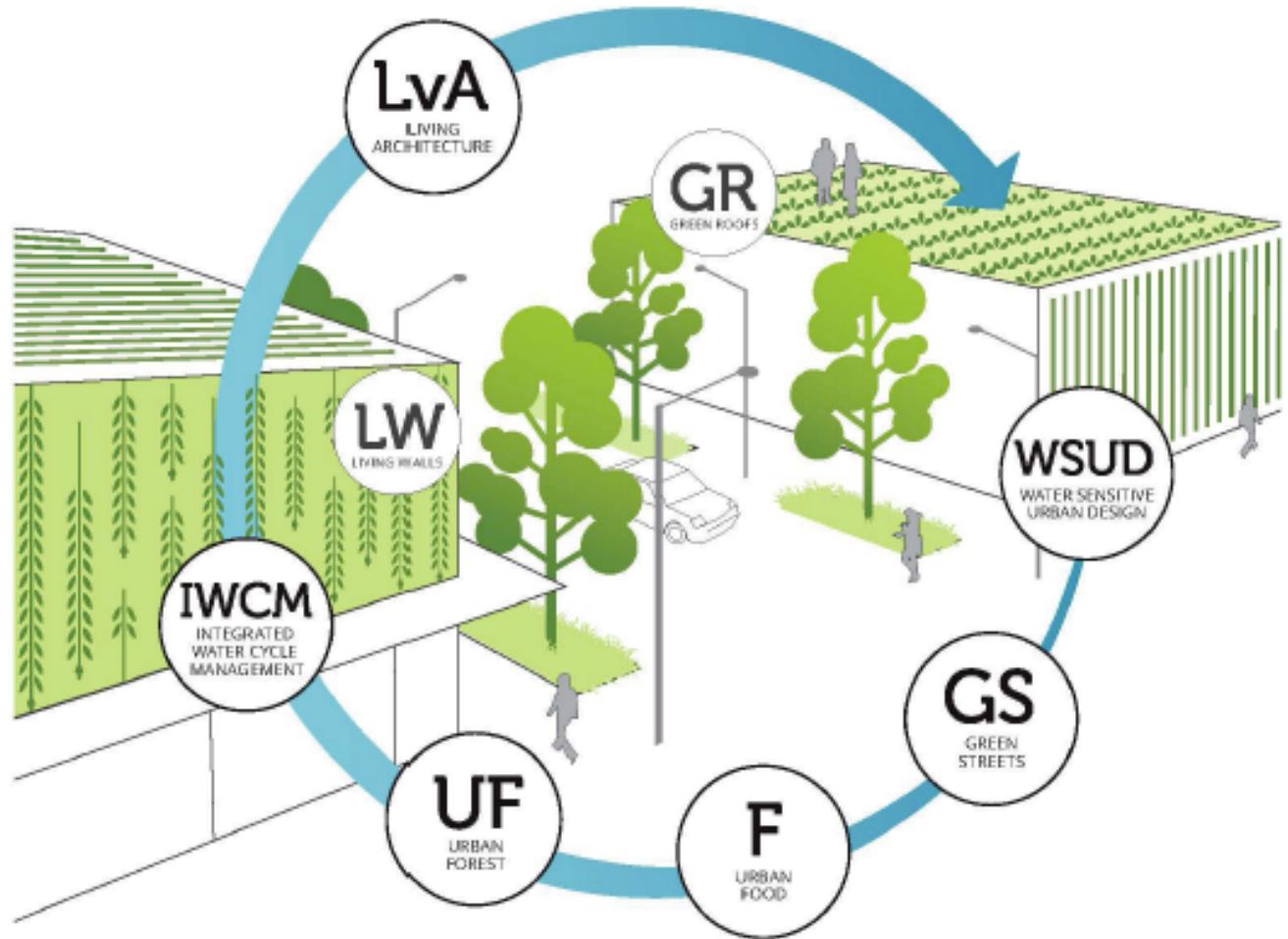
Water Sensitive Urban Design

Integrated Water Cycle Management

Green Streets

Urban Forest

The elements listed above from an interrelated web of benefits what respond to the pressures of urbanisation and climate change.





# LIVING ARCHITECTURE







## GREEN SQUARE DEVELOPMENT

- New suburb for 30,000
- Green roof strategy
- Medium density apartments
- Changed realty attitude



# INNER CITY REDEVELOPMENT

- inner city low rise apartments
- increase in demand for green amenity
- increase in realty value





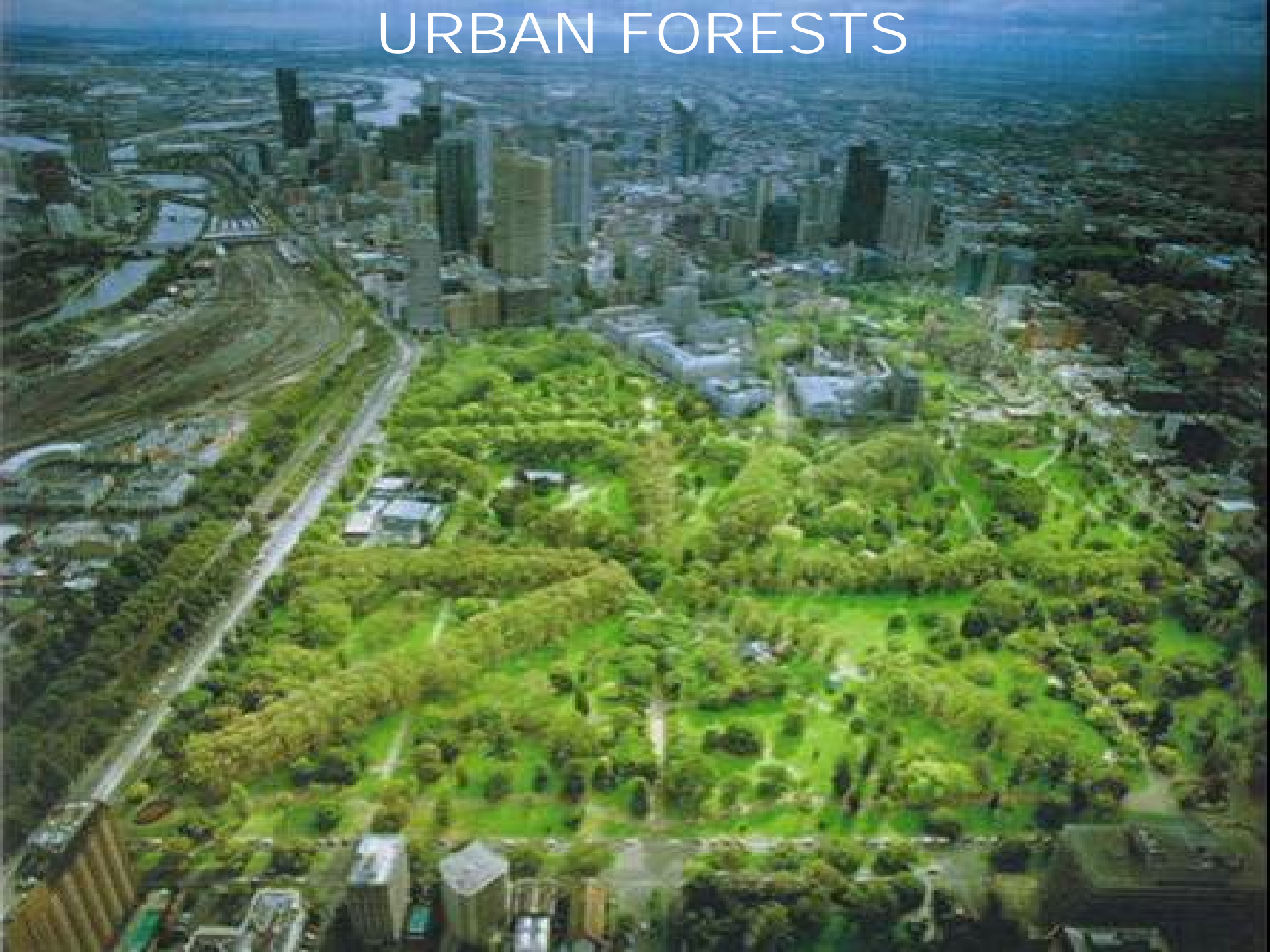
## RESIDENTIAL GREEN ROOFS

- Changing streetscapes
- Raising public awareness & demand
- Supported by Council Planning





# URBAN FORESTS



# GREEN STREETS





# GREEN STREETS

Improving structural soil  
Permeable road surfaces  
Swales & rain gardens





# WATER SENSITIVE URBAN DESIGN



groundwater recharge  
reduce urban flooding  
stormwater filtration

## STORMWATER HARVESTING



# COMMERCIAL URBAN AGRICULTURE





# COMMUNITY URBAN AGRICULTURE





GREY

?

GREEN

RE DEVELOPMENT

- PARADIGM SHIFT
- PORT FACILITIES
- URBAN INDUSTRY

21<sup>st</sup> Century URBAN RE DEVELOPMENT

THINK AGAIN

PLAN AGAIN

START AGAIN





HARBOUR

CBD

BOTANICAL GARDENS

HYDE PARK

Darl Quarter  
3000 res  
1700 work  
Tourist, Conv

Ultimo  
7100 res

Chinatown  
16,000

UTS  
80,000

Central  
Railway  
120,000 com

OCP  
2500 res  
5400 work

OCP

PRINCE ALFRED PARK AND POOL

CENTENNIAL PARKLANDS

GOODS LINE

EVERLEIGH to CENTRAL GREEN RAIL



# PRINCE ALFRED PARK

---





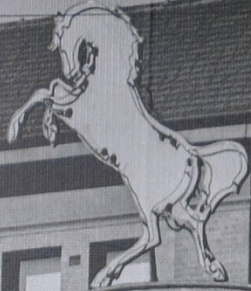




# ONE CENTRAL PARK







TOOTH & CO  
LIMITED  
KENT BREWERY

TOOTH & CO

WINE & SPIRIT  
MERCHANTS

26

TOOTH & CO

LICENSED  
BREWERS

26

5

W.C.  
KE...  
BRIV...RY...

3  
GRILLS  
-TO-  
ORDER.  
ALS

STOUT  
Dicks & Samba











SUTHERLAND

BAR BROADWAY

POSH HOTEL

POSH HOTEL

92 LIVING POSE HOTEL THE BUREAU

SAISON

UTS

Harris St













al













crabbe  
15% OFF  
BETWEEN  
5:30 & 6:00  
PM. VISIT CRABBE.COM









UTS

UTS



# GOODS LINE











Barangaroo  
Headland

Darling  
Quarter



# GREEN GLOBAL CONNECTED









DARLING HARBOUR  
LIVERPOOL STREET

3  
RESTRICTED  
PARKING  
AREA  
NO PRIVATE  
PARKING PERMITTED

HARBOUR ST  
Harbour Br  
CROSS CITY  
TUNNEL  
Eastern Sub  
Airport

TOLL  
NO LEFT  
TURN







NEW URBAN SPACES

















EXHIBITION CENTRE











CHRIS ROCK  
THE UNDISCIPLED MIND  
29 JUNE

PLAY





Rabobank

Commerzbank

Allianz

City

MARINA



# COMMUNITY vs COMMERCIAL





# COMMUNITY FACILITIES

An aerial photograph of a coastal city, likely Sydney, Australia. The image shows a large body of water in the foreground, with a bridge crossing it. In the middle ground, there is a large, modern building complex with a prominent white, curved skyscraper. The background shows a dense urban area extending to the horizon under a clear blue sky with a few wispy clouds.

BARANGAROO HEADLAND RESERVE



# INVESTMENT IN PARKS









# ACCESS CONNECTIVITY AMENITY







# BALLAST POINT PARK

adaption and re-use of existing spaces





PORT FACILITY  
to  
PIRRAMA PARK









# CITY of SYDNEY 2030 TARGET

Reduce urban grey area from 96.5% to 83% of inner city

Increase urban green area from 3.5% to 17%

## OUTCOME

- Reduce inner city temperature by 4.0%
- Reduce GHGE by reducing energy consumption
- Improve human well being & health
- Improve urban biodiversity
- Improve stormwater quality management
- Improve ecosystem services





© LEND LEASE 2010

**DANKE**



**BLEI BGRÜN**



WORLD GREEN INFRASTRUCTURE NETWORK  
vegetation makes it possible!