

# Stormwater: Nuisance or Resource? Water Utilities: Adapting for the Future

[Presentation by]

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**ACCELERATING  
INVESTMENT**

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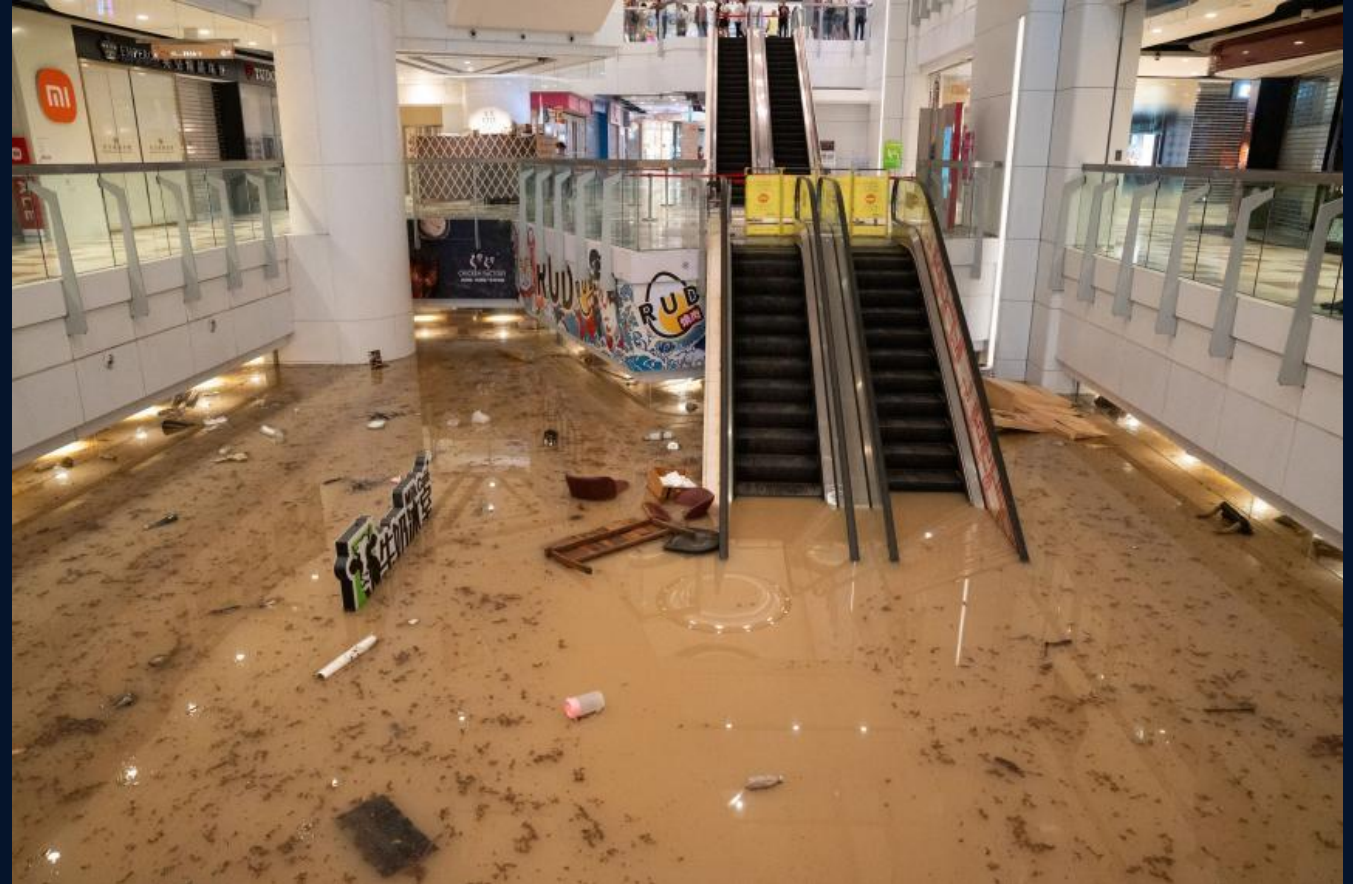
# Stormwater Perspectives



<u>Challenges</u>	<u>Opportunities</u>
<ul style="list-style-type: none"><li>• Damage – Flooding</li><li>• Quantity – Water Scarcity</li><li>• Quality – Pollution</li><li>• Funding</li></ul>	<ul style="list-style-type: none"><li>• Divert excess water</li><li>• Capture and reuse</li><li>• Nature based solutions</li><li>• Partnerships</li></ul>

# Stormwater Challenges

- Disconnect on stormwater management
- Handling fluctuating water events
  - Flood control, managing & mitigating nuisance
- Pollution



2023 Hong Kong flood event (>158 mm in 1 hour)



# Stormwater Technology: Diversion, Capture & Release

- Provides 60,000m<sup>3</sup> storage
- Flood control
  - Redirect from slopes upstream
  - Capture midlevel/midstream
  - Improve draining at coastal area
- Real-time monitoring to automatically open weirs during flood events
- Captured and released to ocean



# Building on Stormwater Diversion: Land Management & Flood Prevention

- Partnership aimed at sustainable floodplain management and environmental restoration
- Establish wetland and floodplain ecosystem
- Improve water quality in the Maroochy River
- Reduces flood risk
- Support new land uses
- >5,000 hectares natural floodplain



Blue Heart Project, Unitywater, Sunshine Coast, Australia



# Building on Stormwater Diversion: Household Uses

- Partnership
- 3 sources of water
  - Drinking
  - Class A Recycled
  - Rainwater
- Smart monitoring to prevent flooding
- Reduces community's reliance on drinking water by up to 70%



Aquarevo Sustainable Housing Development, SE Water, Melbourne, Australia

# Funding Stormwater Projects

- Government Funded
  - Drinking Water grants and State Revolving Funds
- Ratepayers
  - Dedicated Stormwater Tax
  - Safe Clean Water Program, LA Water
  - Green Stormwater Infrastructure fee, Tuscon Water
- Public-Private Partnerships
  - PUB, Singapore



Riverbank Restoration Project,  
Unitywater, Sunshine Coast, Australia



# Key Benefits and Takeaways

- Enhanced ecosystems (wetlands, riparian zones)
- Reduced flooding and erosion
- Improved water quality
- Safer communities through improved flood risk management



Riverbank Restoration Project, Unitywater, Sunshine Coast, Australia



# Thank you!

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2025 Future Water Leaders