



TOPIC TALK

CLIMATE RISK SCREENING AS THE FIRST STEP IN RESILIENT REMEDY DESIGN

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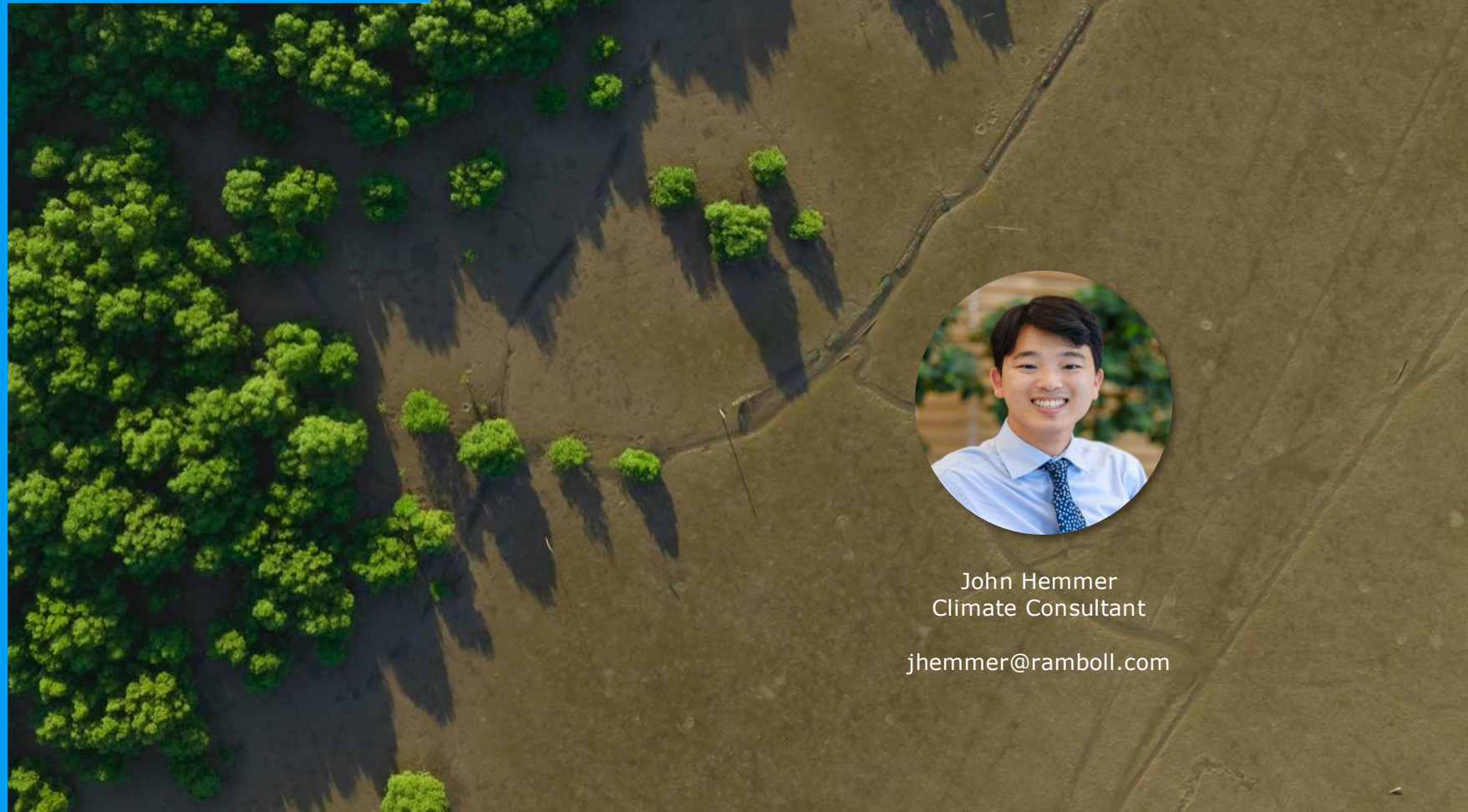
Climate Risk Screening as the First Step in Resilient Remedy Design

A First Step Toward Investing in the Appropriate Resilient Site Remedies with HazAtlas



RAMBOLL

Bright ideas.
Sustainable change.



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Why are Climate Screenings an Important First Step for Brownfields?



Extreme weather events can spread contaminants

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~60% of US brownfields are at risk to climate hazards

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Influence site cleanup and monitoring

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Change end use options

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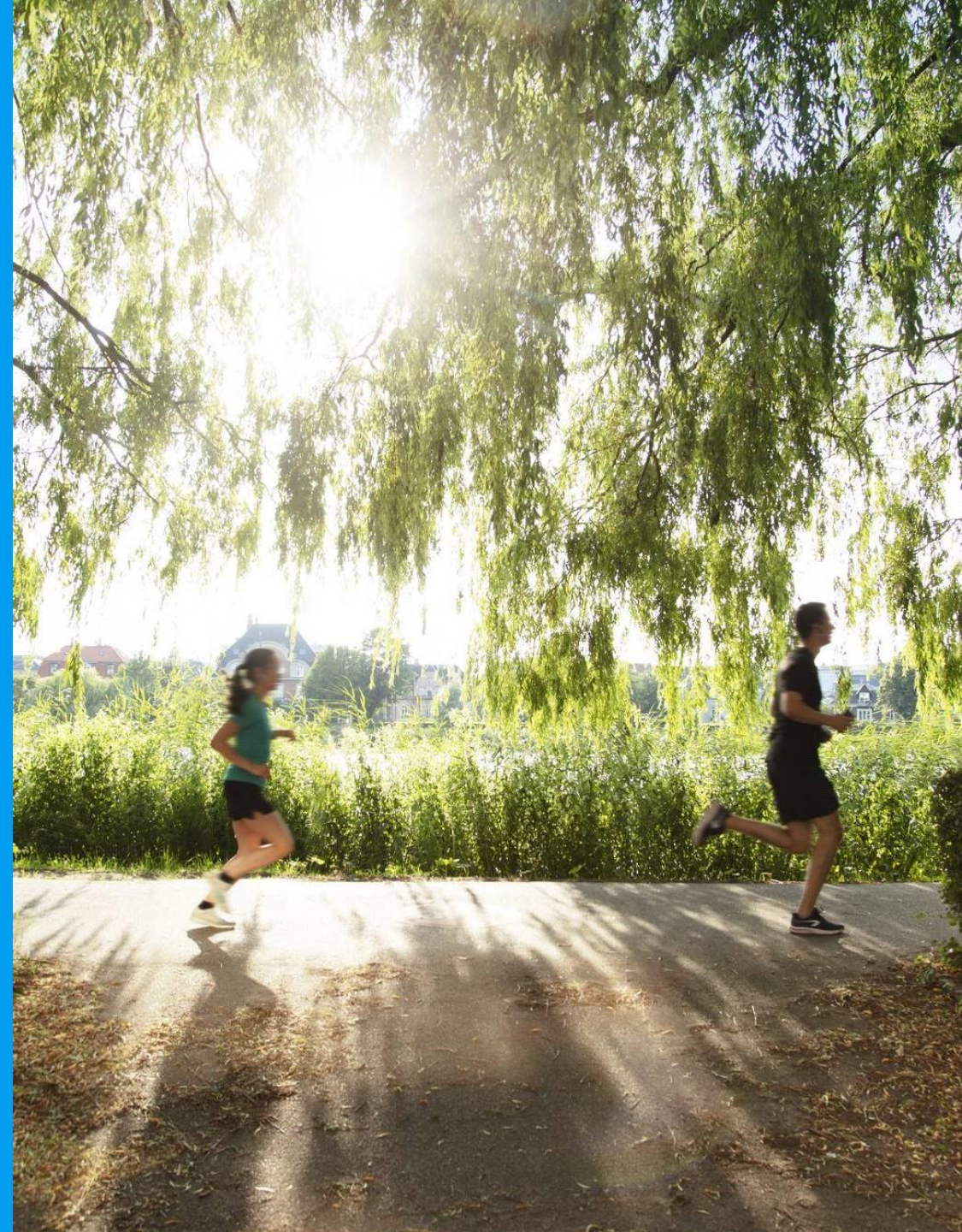
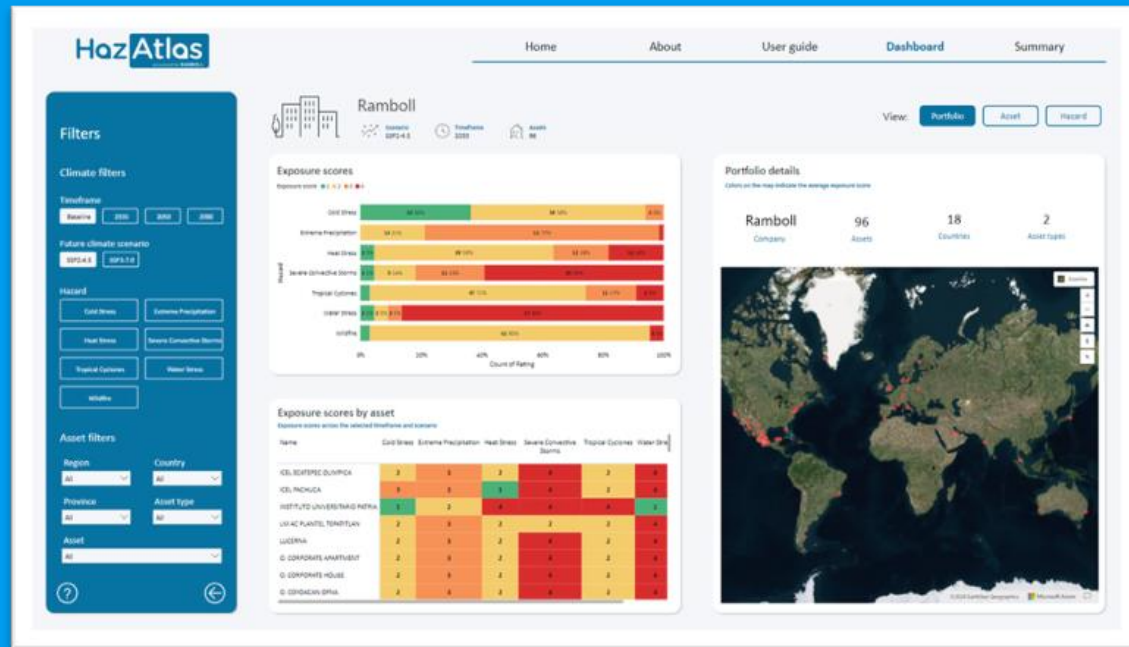


Change end use options

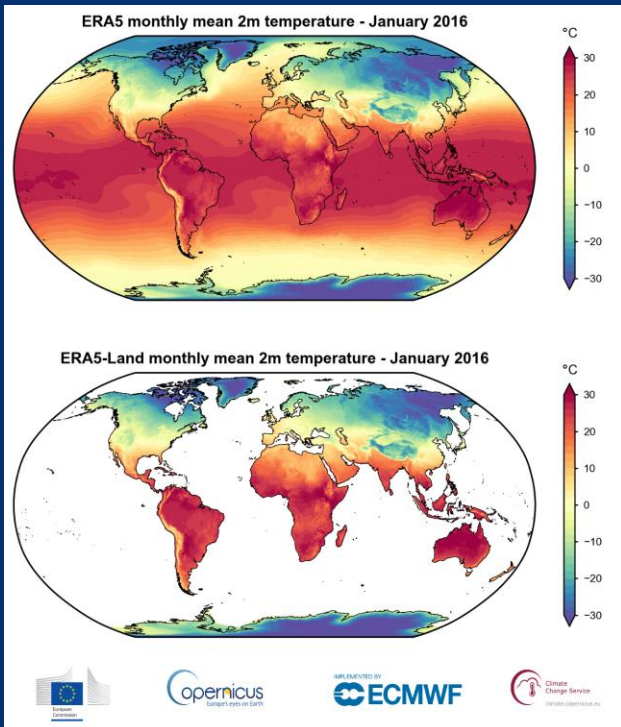


Mitigation saves money!

How to Screen for Climate Hazards Using HazAtlas



Your first-pass global
climate risk screening
tool



110+

Terabytes of Data

Ingested & processed
for analysis



30+

Data Sources

Hazard, climate &
exposure datasets



6

**Continents
Covered**

Global coverage at high
resolution

Key Data Sources



NASA

Climate Models



Copernicus

EU Earth Observation



Fathom

Global Flood Intelligence

How to Screen Climate Risk for Brownfields?



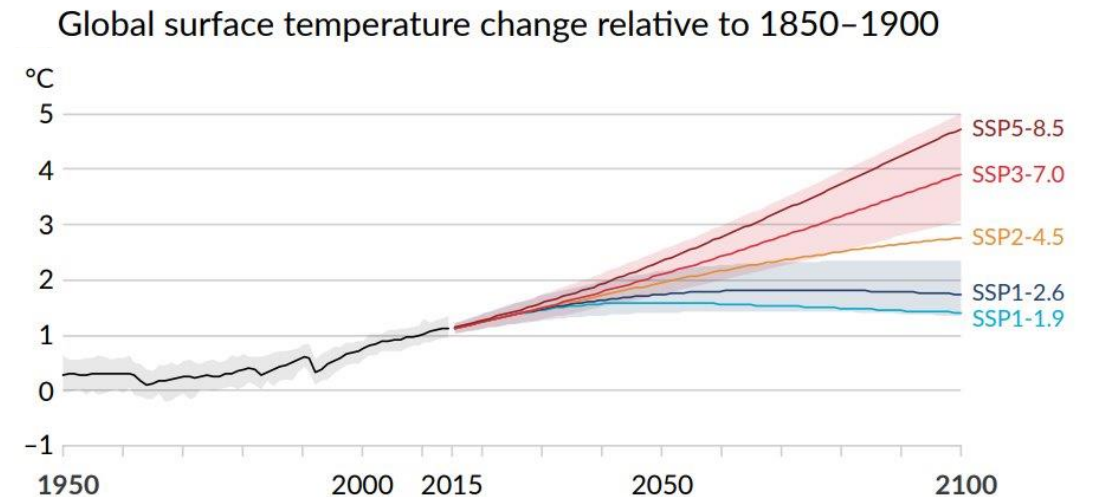
Exposure

The presence of people and places that could be adversely affected by climate hazards



$$\boxed{\text{Exposure}} \times \text{Sensitivity} = \text{Vulnerability}$$

Exposure level differs based on the GHG scenario we assume



Sensitivity

The degree to which an asset’s physical structure or operational processes are impacted when exposed to a climate hazard

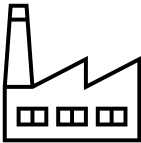
Exposure

×

Sensitivity

=

Vulnerability



Hazard	Sensitivity	
	Coal Ash Pond	Water Park
Wildfire	Low	Low
Flooding	High	Medium
Water Stress	Low	High

Vulnerability

Exposure



Sensitivity



Vulnerability

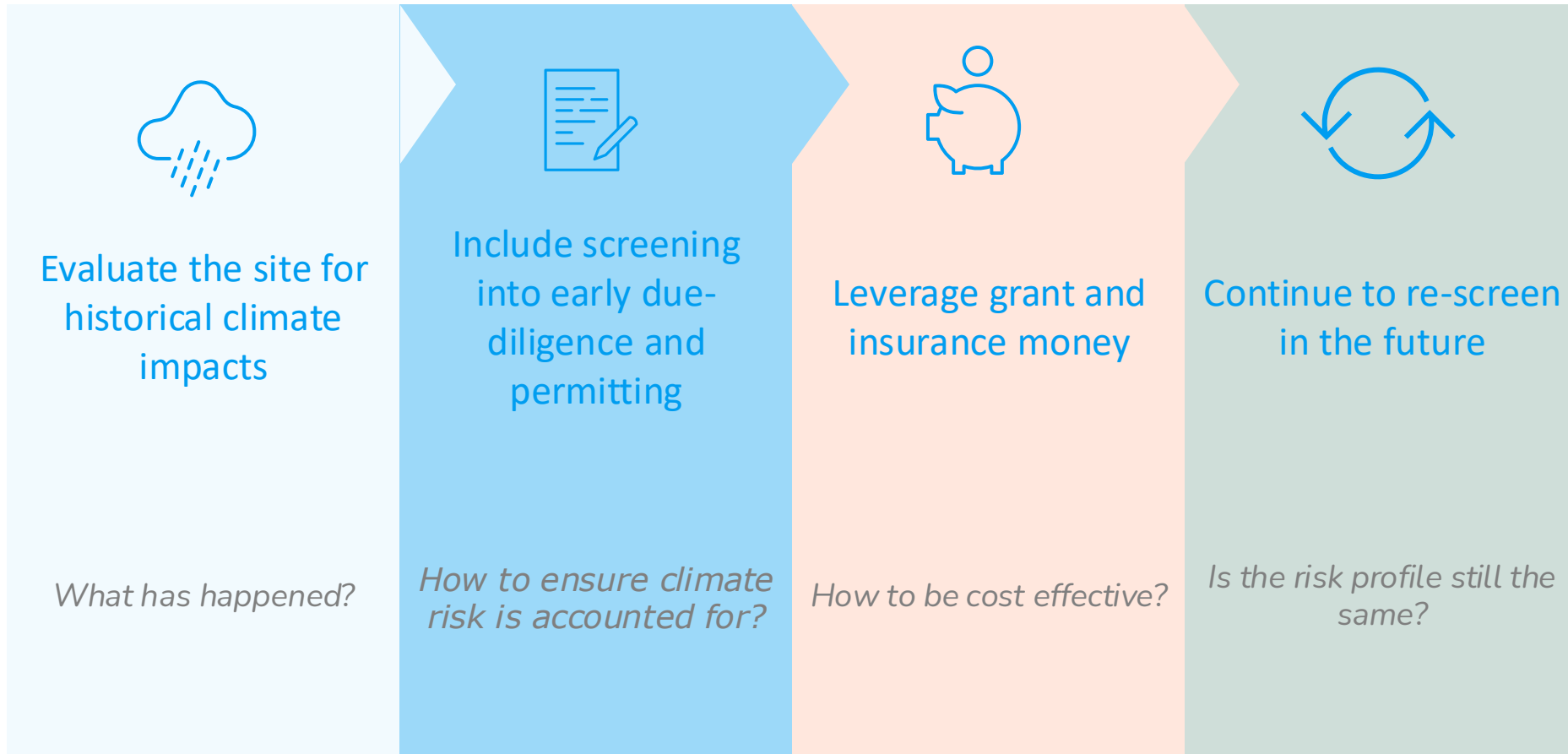
The overall potential for an asset to be adversely affected by climate hazards, determined by combining its exposure to physical hazards with its sensitivity to those hazards

Vulnerability				
Exposure	Sensitivity Rating by Asset Type			
	Minimal (0)	Low (1)	Medium (2)	High (3)
Minimal (0)	0	0	0	0
Low (1)	0	1	2	3
Medium(2)	0	2	4	6
High (3)	0	3	6	9
Very High (4)	0	4	8	12

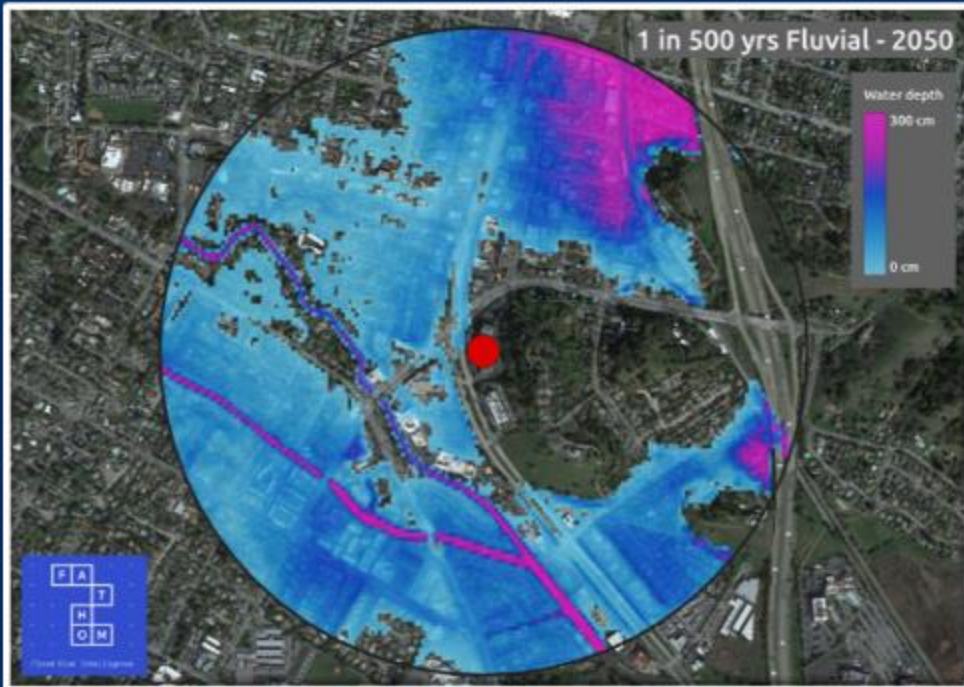
Adaptation Strategies

Hazard	Adaptation	Why?
 Wildfire	Employ a vegetation management program to maintain defensible space around assets.	Reduce risk of asset being damaged in a wildfire.
 Flooding	Obtain detailed flood maps to determine the magnitude and extent of site flooding and elevate containment structures, and other sensitive infrastructure above modeled flood levels.	Retention pond does not breach the walls and contaminate site and surrounding area.
 Water stress	Use native and/or drought-resistant vegetation for greenspaces and employ water-efficient designs such as low-flow fixtures and rainwater harvesting systems. Deprioritize water intensive end uses.	Limit likelihood vegetation is damaged or dies off during prolonged droughts.

Next Steps



Bright
ideas.
Sustainable
change.



HazAtlas LinkedIn





CALIFORNIA LAND RECYCLING CONFERENCE

Imagine | Innovate | Implement
September 29 – October 1, 2026 | Foster City

THANK , YOU!

IMAGINE, INNOVATE, IMPLEMENT

THE FUTURE OF LAND RECYCLING



We appreciate your feedback, follow this QR code
to submit an evaluation form on Whova.
Join the conversation, use **#CALRC2026** to share
your photos, insights and highlights!



OFFICE OF BROWNFIELDS

Department of Toxic Substances Control | Changing to Sustainable Communities Initiative



CENTER FOR CREATIVE
LAND RECYCLING
RECLAIM. CONNECT. TRANSFORM.