



Shared Projects Between Lifelines Groups and Other Updates

This Session

- **Recap on new arrangements for EQC's financial support for Lifelines Groups**
- **Encouraging as uniform as an approach as possible for vulnerability assessments and interdependency work**
- **Highlights from Stephanie Chang's recent presentations**



EQC Objectives for Funding of Regional Lifelines Groups

1. Encouraging risk reduction as a key element of increasing the resilience of NZ's infrastructure
2. Facilitating improved collaboration between individual Lifeline Utilities, and local government, in relation to natural hazard risk that may lie *between* their respective jurisdictions for planning and risk management
3. Promoting the transfer and takeup of hazard and risk knowledge for recovery planning by Lifeline Utilities in order to support EQC's post-disaster response objectives of the timely re-occupancy and repair of residential accommodation

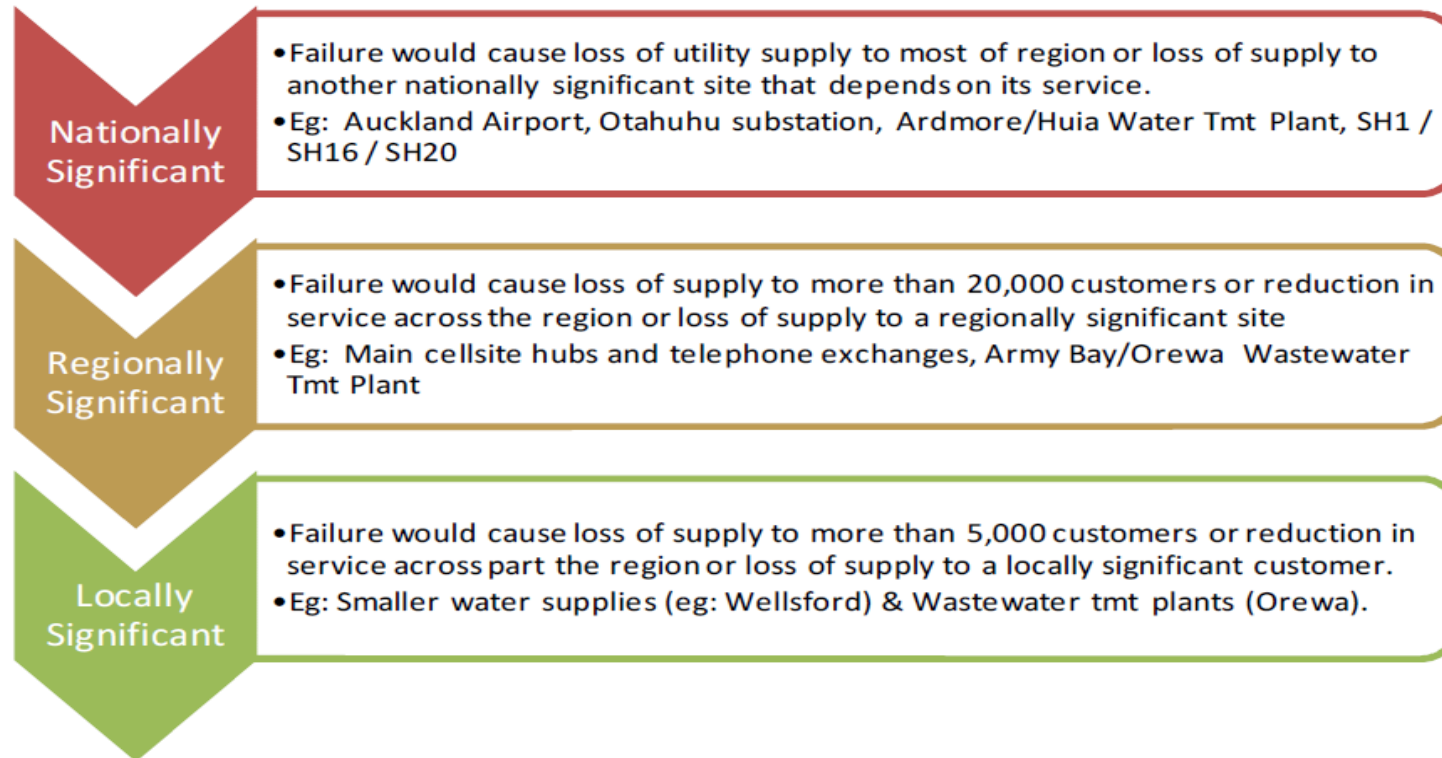
New Arrangements for EQC's Financial Support of Lifelines Groups

- 1. Additional funding for the National Lifelines Forum**
- 2. Supporting those Groups with only nominal funding**
- 3. Additional funding for specific projects**

Categorising Vulnerability Assessment Methodologies

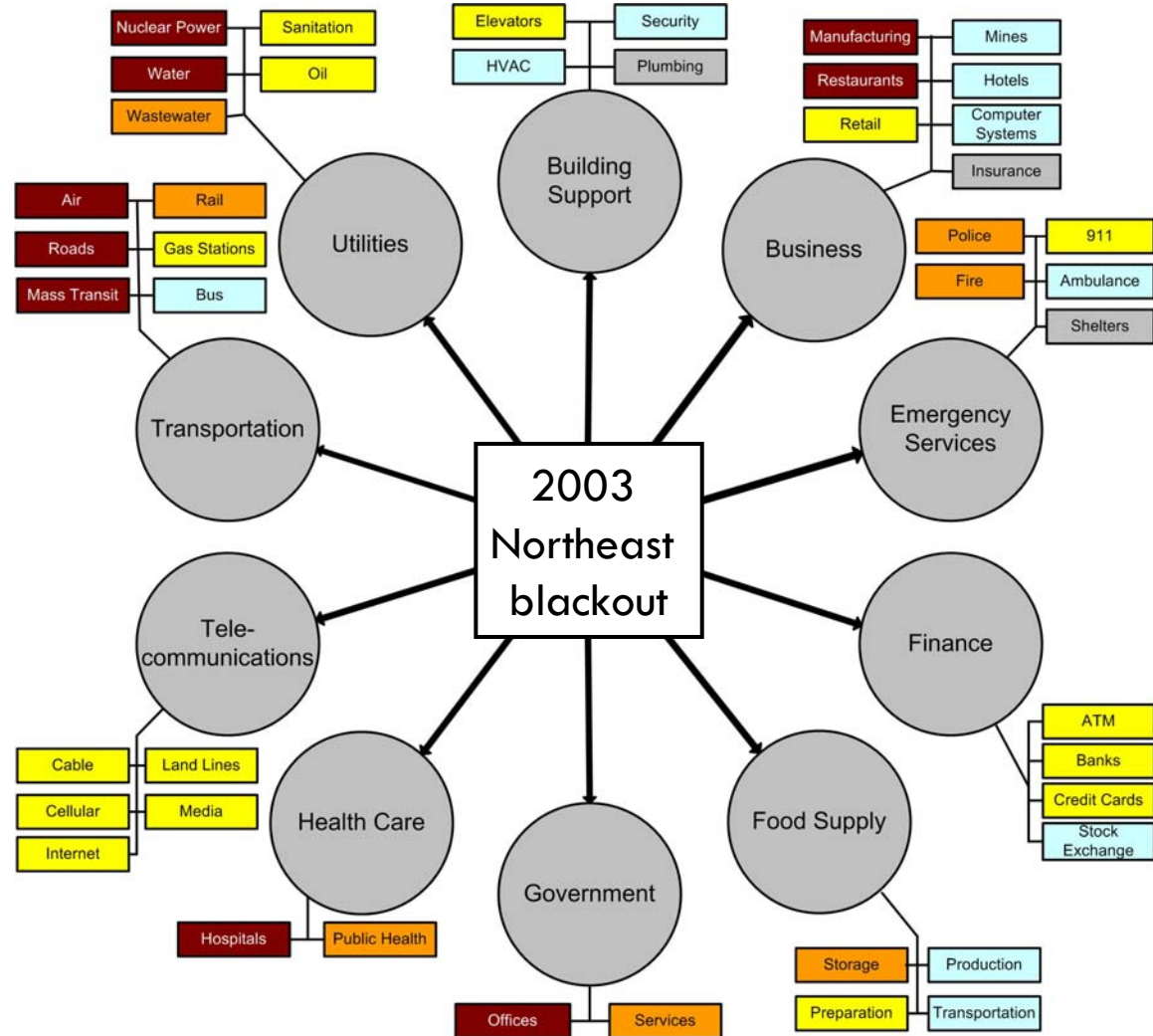
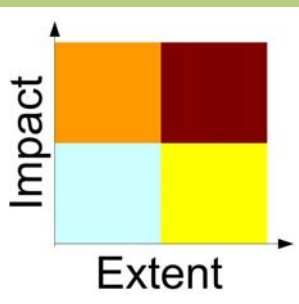
- **First-order assessment**
 - Qualitative/ indicative identification of critical areas
- **‘Lifelines Vulnerability Assessment’**
 - Qualitative/ systematic assessment of importance and vulnerability
- **Integrated risk modelling of regional networks**
 - Quantitative/ comprehensive

AELP-2: CRITICALITY DEFINITIONS



Infrastructure Failure Interdependencies (IFIs)

Failures in one infrastructure system often lead to failures in others

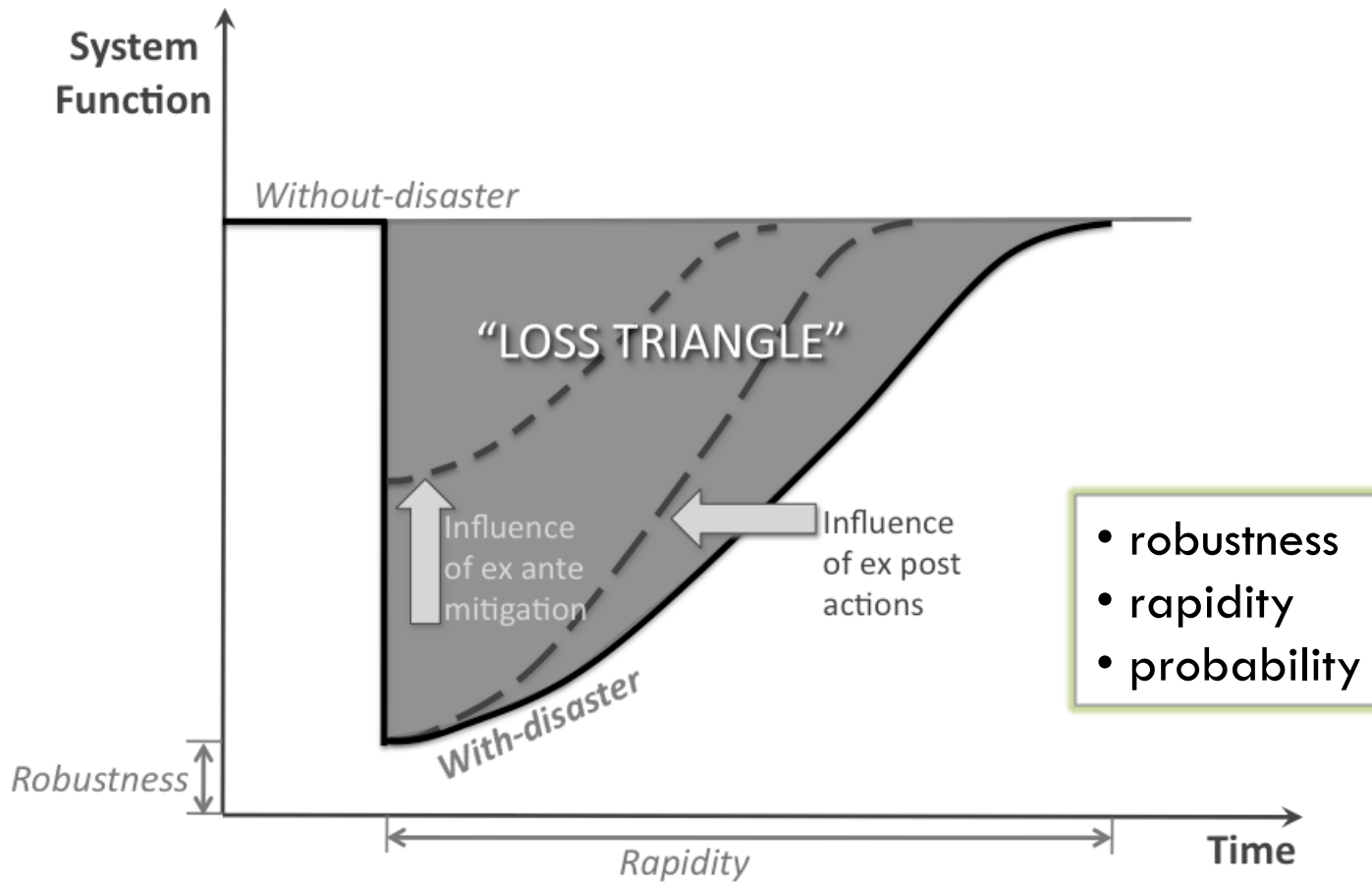


(McDaniels et al. 2007)

Barriers to Addressing IFIs

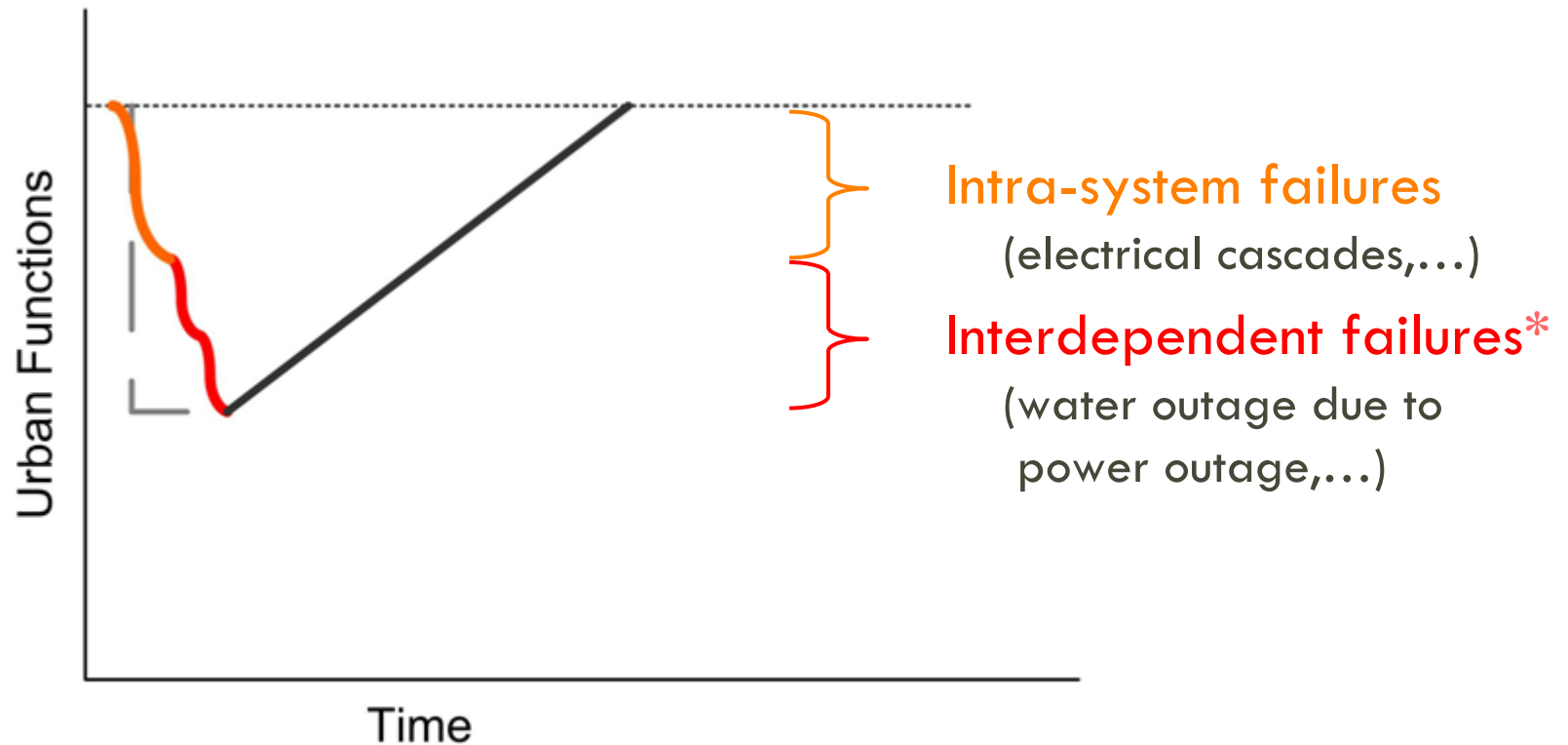
- Organizational interests are narrower than regional interests
- Security concerns impede information sharing
- Infrastructure managers often lack direct experience with extreme events

Disaster Resilience



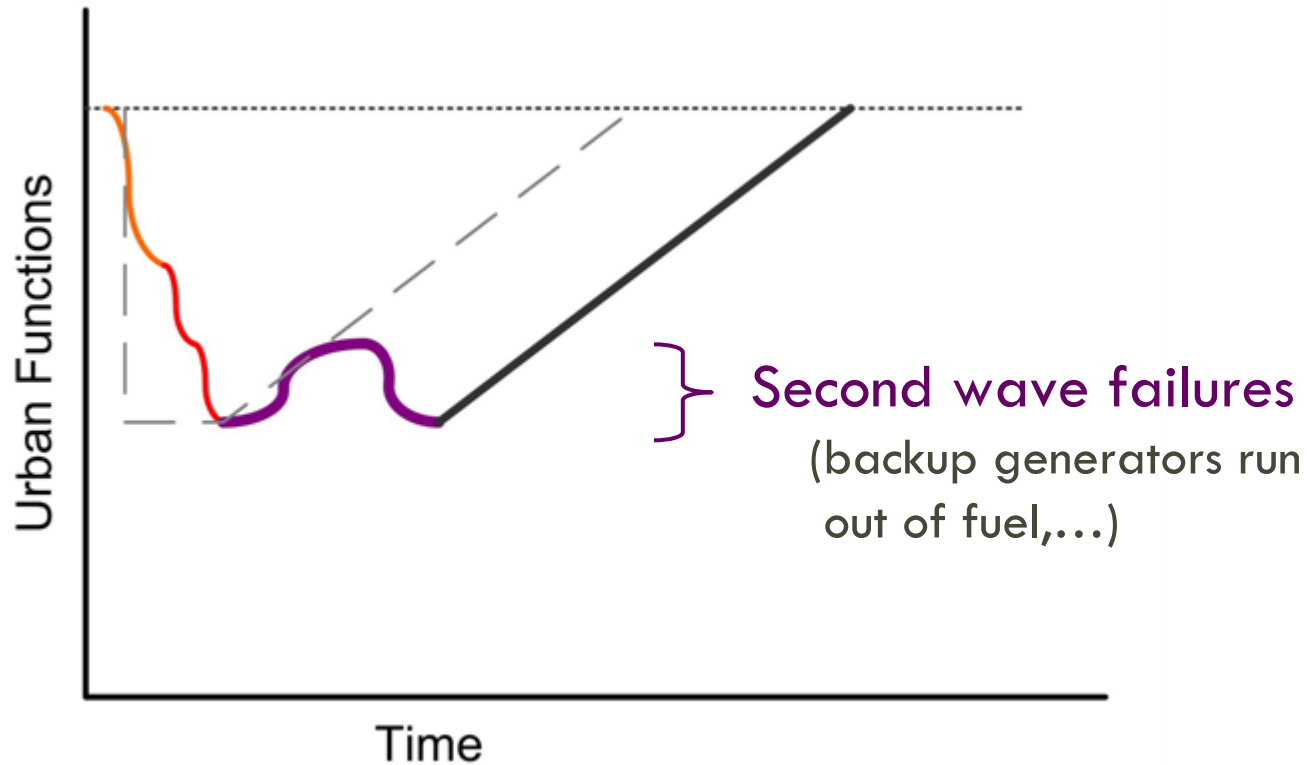
(after Bruneau et al., 2003)

“Unfolding” – Part 1

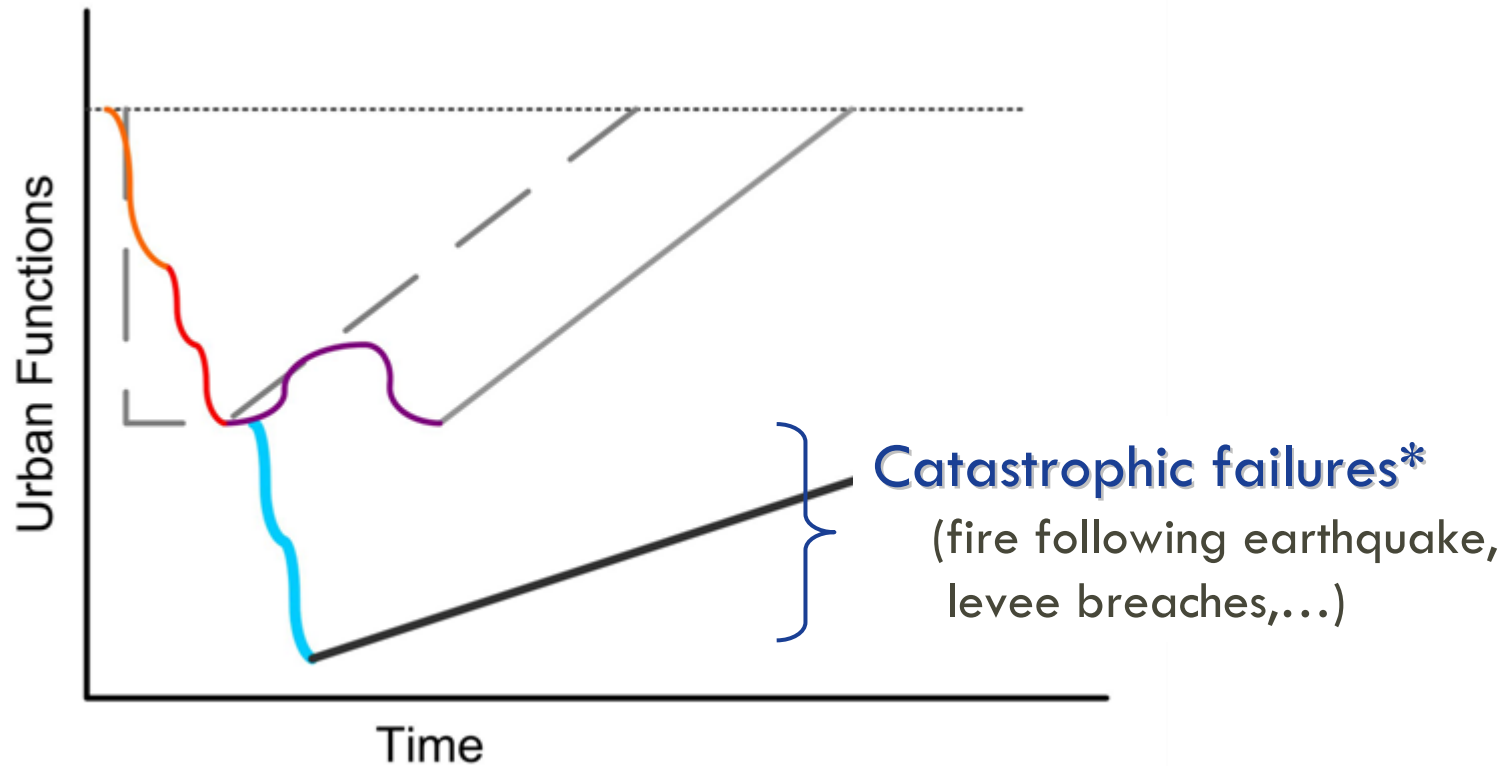


* propagating service disruptions

“Unfolding” – Part 2



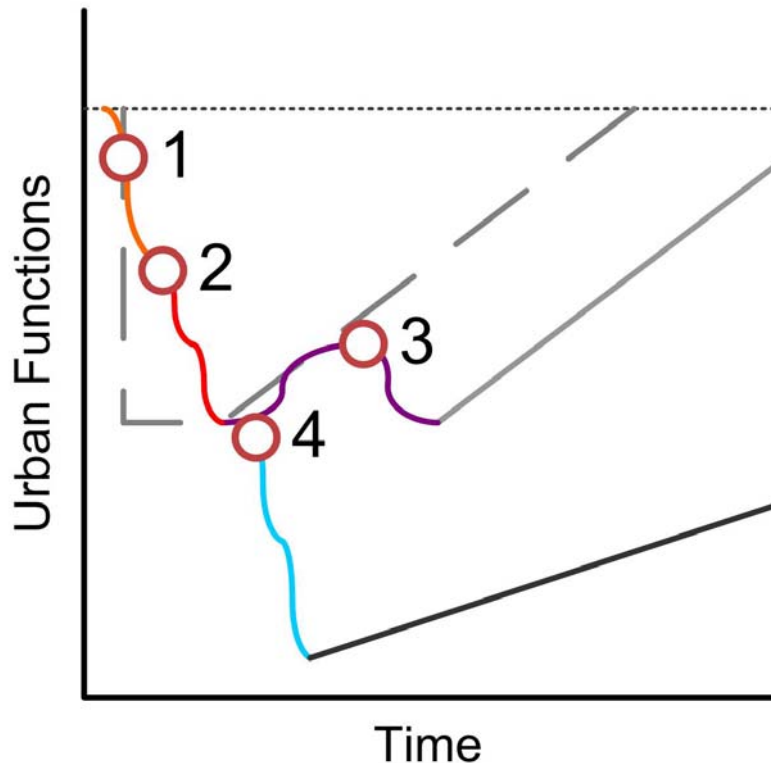
“Unfolding” – Part 3



* causing extensive physical damage

Intervention Points

Where can communities most effectively mitigate risk?



1. Prevent within-system failures & cascades
2. Prevent cross-system interdependent failures
3. Prevent second-wave functional deterioration
4. Prevent catastrophic
5. Enhance societal capacity to cope with disruptions