

FRAMEWORKS TO GUIDE FLOOD RISK REDUCTION

- ❖ International approaches
- ❖ Agency approach
- ❖ Practitioner views

WHY HAVE A FOCUS ON FRAMEWORKS?

Provides a systematic approach

Consistency across multiple organisations

Translate into local solutions





CHAOS POTENTIAL – HOW CAN WE RESPOND???

Sendai Framework for Disaster Risk Reduction

- Vision:

The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

- Goal:

Prevent new and reduce existing disaster risk through the implementation of **integrated** and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that **prevent** and **reduce hazard exposure** and **vulnerability** to disaster, **increase preparedness** for response and recovery, and thus strengthen resilience.



SENDAI FRAMEWORK — UNITED NATIONS OFFICE FOR DISASTER RISK REDUCTION

TARGETS FOR ACHIEVEMENT – GLOBAL, NATIONAL, CATCHMENT, LOCAL



Priority 1	Priority 2	Priority 3	Priority 4
Understanding disaster risk	Strengthening disaster risk governance to manage disaster risk	Investing in disaster risk reduction for resilience	Better prepare for effective response and to Build Back Better after disaster

*Please Note -
Full Copy in
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Lesson 3*



GUIDING PRINCIPLES – GLOBAL ASPIRATIONS TO LOCALLY RELEVANT

NATIONAL OR PROVINCIAL APPROACH

EXAMPLE – QUEENSLAND APPROACH

Priorities

As Queenslanders, we are disaster resilient when:

- 1** we understand the potential disaster risks we face
- 2** we work together to better manage disaster risk
- 3** we seek new opportunities to reduce disaster risk
- 4** we continually improve how we prepare for, respond to and recover from disasters

Guiding Principles



FLOOD RISK PLAN ON A CATCHMENT BASIS



FLOOD RISK PLAN ON A CATCHMENT BASIS

Brisbane River Strategic Floodplain Management Plan



Understanding current and future flood risk

The Flood Study identified the likelihood of different sized floods occurring in the Brisbane River floodplain ranging from small and frequent floods to very large and rare floods. The Strategic Plan builds on this information to identify the impact of different sized floods on our community, natural environment, economy and the urban environment. Current and future flood risk was assessed, including parts of the floodplain that are particularly vulnerable to flood as well as how development, population growth and changes to our climate may affect flood behaviour in the future. The Strategic Plan establishes frameworks for managing both current and future flood risk to ensure decisions made in one part of the floodplain consider potential impacts to other areas.



Structural mitigation options

Infrastructure can help reduce flood risk where appropriate and economically viable. Potential mitigation structures were sourced from almost 300 options submitted through the Queensland Floods Commission of Inquiry as well as options previously identified by state government agencies and the four local governments. The list of recommended regional-scale structural options are detailed in the Strategic Plan.



Disaster management

All four local governments now have access to the same information source for understanding the impact of floods in real-time. The information from this shared system will help local governments to quickly determine potential consequences of a flood on the community, based on flood forecasts by the Bureau of Meteorology.



Land use planning

New regional-scale data acquired through the Strategic Plan will be used to inform flood risk assessments. This will enable both current and future risks to be considered for future developments and to ensure that changes to one part of the floodplain do not negatively impact flood risk elsewhere.



Community awareness and resilience

Community input has helped identify opportunities for even greater collaboration across government to support clear and consistent information being available before, during and after a flood. The Queensland and local governments will work together to develop regionally consistent flood risk information for people living and working in different parts of the floodplain. This includes greater consistency in online flood awareness mapping, property-scale flood information and community messaging.



Integrated catchment management

The Strategic Plan acknowledges the benefits of catchment landscape management to improve flood resilience and recommends it be considered as part of the suite of resilience actions undertaken to manage flood risk.



Resilient buildings

The *Flood Resilient Building Guidance for Queensland Homes* has been produced for planners, engineers, homeowners, architects, builders and certifiers about increasing the flood resilience of new and renovated residential properties. The guide is available at www.qra.qld.gov.au/BRCS





WHAT CAN YOU DO?????

SO WHAT IS THE NEXT STEPS TO BUILD THE
LOCAL PLAN???

FRAMEWORKS GIVE THAT CONSISTENCY OR APPROACH
AND KEY STRATEGIC THINKING

A decorative graphic consisting of several parallel white lines of varying lengths, slanted upwards from left to right, located in the bottom right corner of the slide.

Outcome



Strategy



Measures

SEQUENCE OF THINKING FOR YOUR
PLAN





- Safe Communities



- Secure Infrastructure



- Healthy Environment

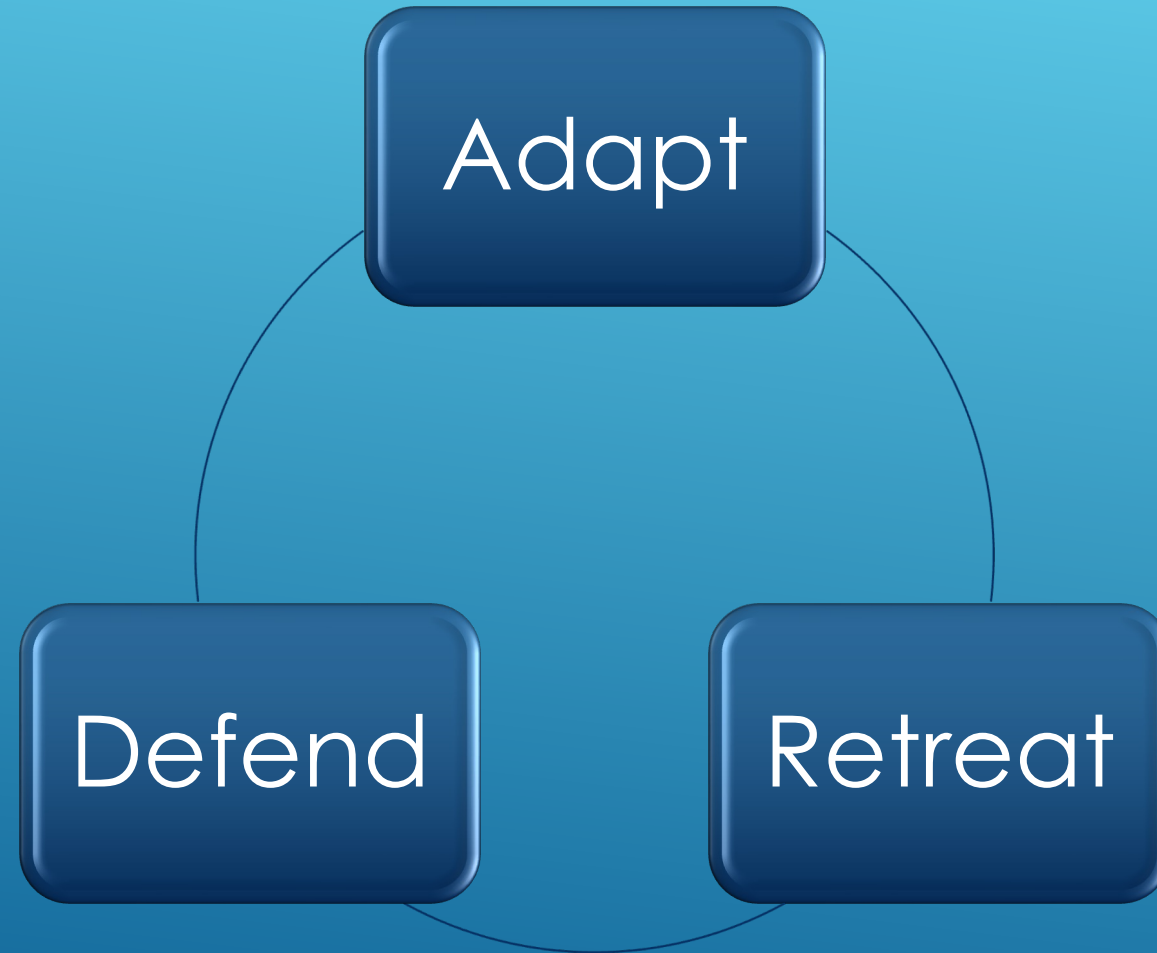


- Business and Economic Continuity

EXAMPLES OF OUTCOMES



STRATEGY ELEMENT OPTIONS



Adapt

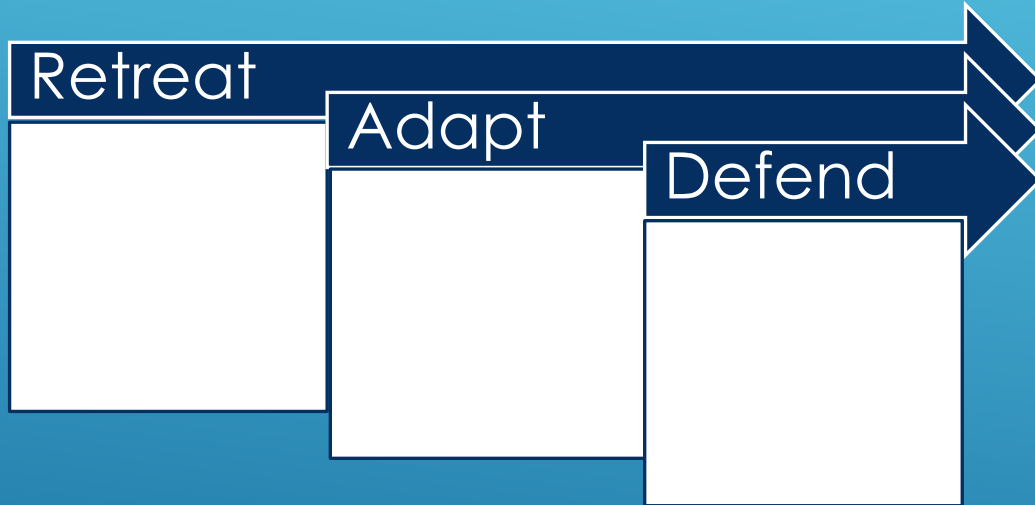


Defend



CONTRAST IN OPTIONS

Strategy solutions



Scale of application



LINK ELEMENTS FOR BEST COMBINATION
AND RELEVANT COMBINATION

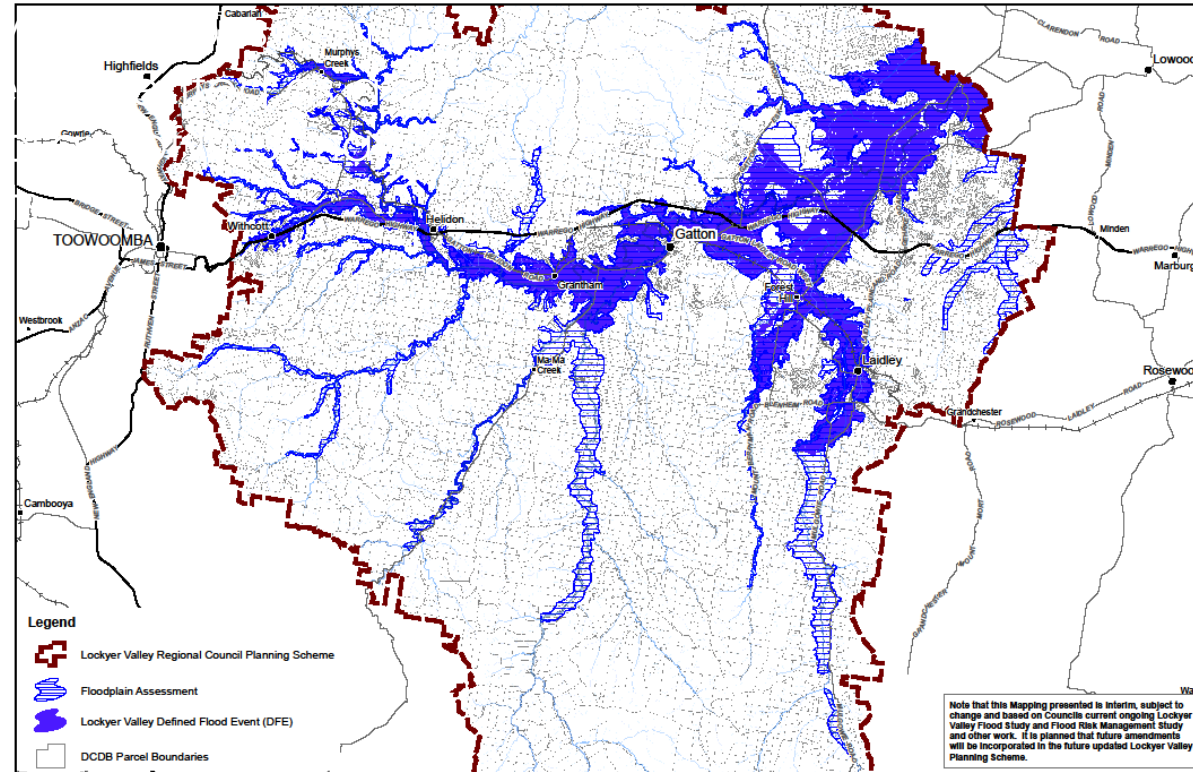


SUITE OF MEASURES THAT ARE BEST TAILORED TO EACH CATCHMENT

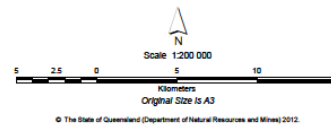


WHEN DOES THE SEQUENCE START

ANTICIPATE - FLOOD INVESTIGATIONS AND MAPPING

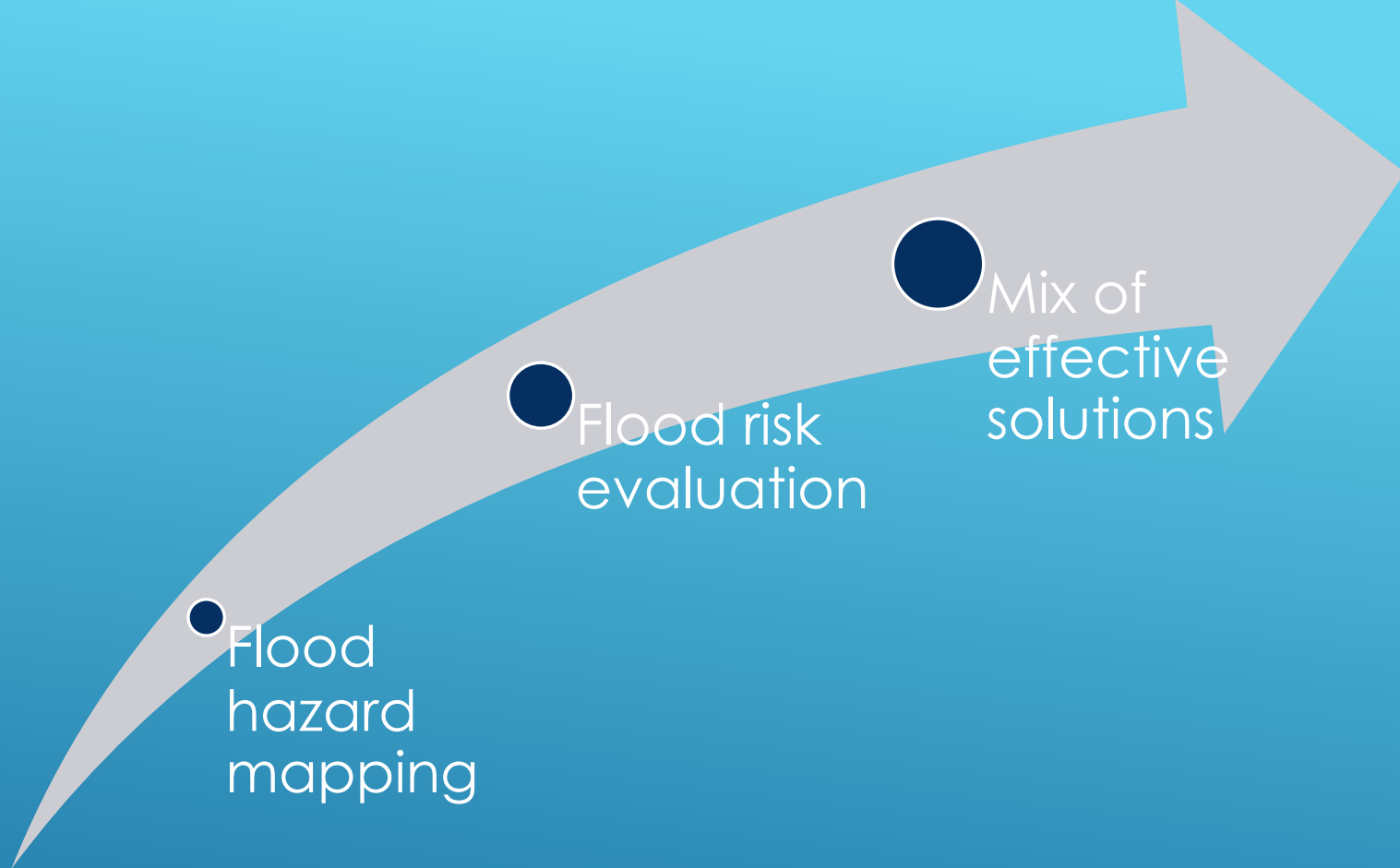


FLOOD HAZARD OVERLAY
- FLOODPLAIN ASSESSMENT
LOCKYER VALLEY REGIONAL COUNCIL
PLANNING SCHEME
OVERLAY MAP F



Digital Cadastral Database (DCDB) supplied by the Department of Natural Resources and Mines May 2012.

While every care is taken to ensure the accuracy of this data, the Department of Natural Resources and Mines, and/or contributors to this publication, makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all injuries, expenses, losses, damages (including indirect or consequential damage) and costs which might be incurred as a result of the data being inaccurate or incomplete in any way or for any reason.

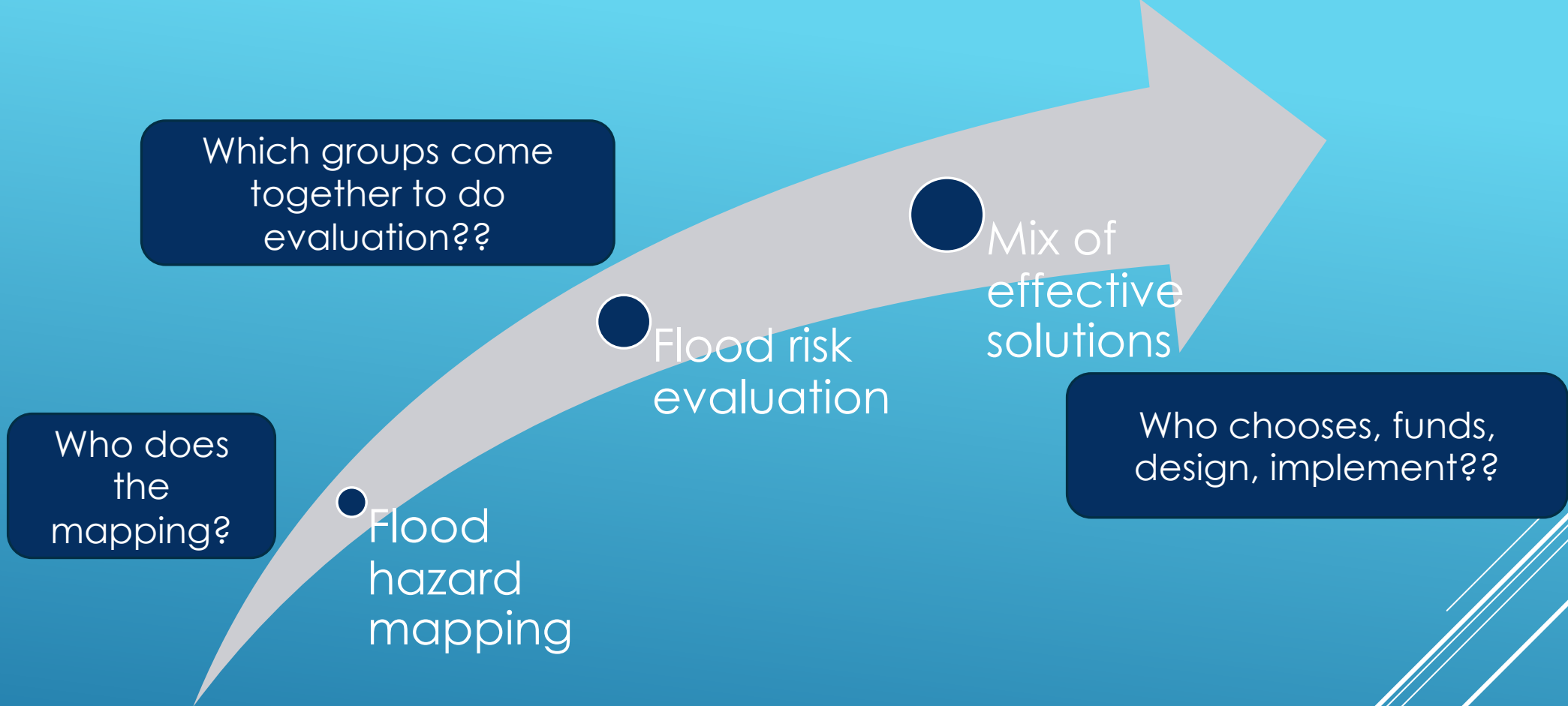


Flood hazard mapping

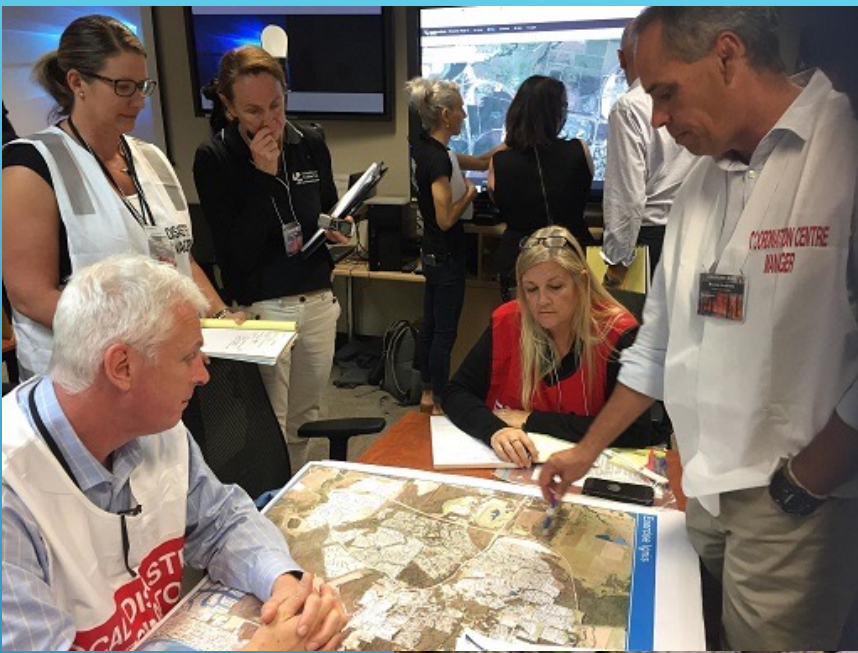
Flood risk evaluation

Mix of effective solutions

ANTICIPATE PROCESS TO REDUCE FLOOD RISK



ANTICIPATE PROCESS TO REDUCE FLOOD RISK - MIX OF PLAN AND PREPARE



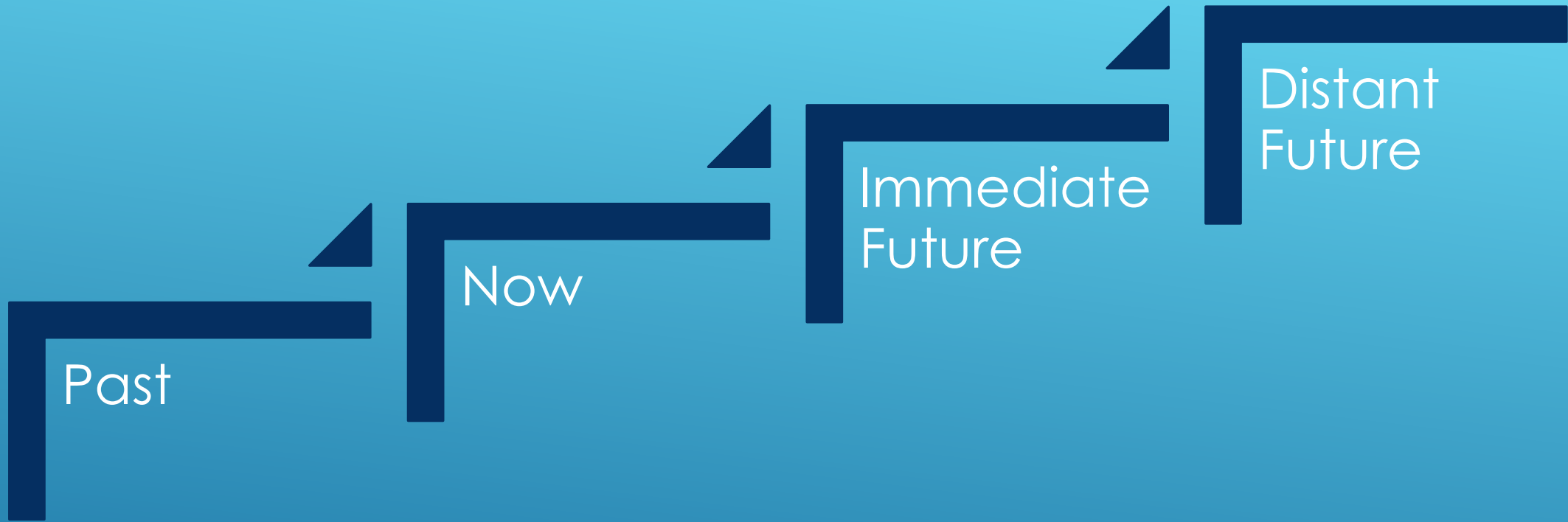
Role	Organisation
Brave helpers	Residents and volunteers
Emergency Services	Local Government Police Swift Water Rescue Military
Dam Manager	SEQ Water

PEOPLE WHO RESPOND

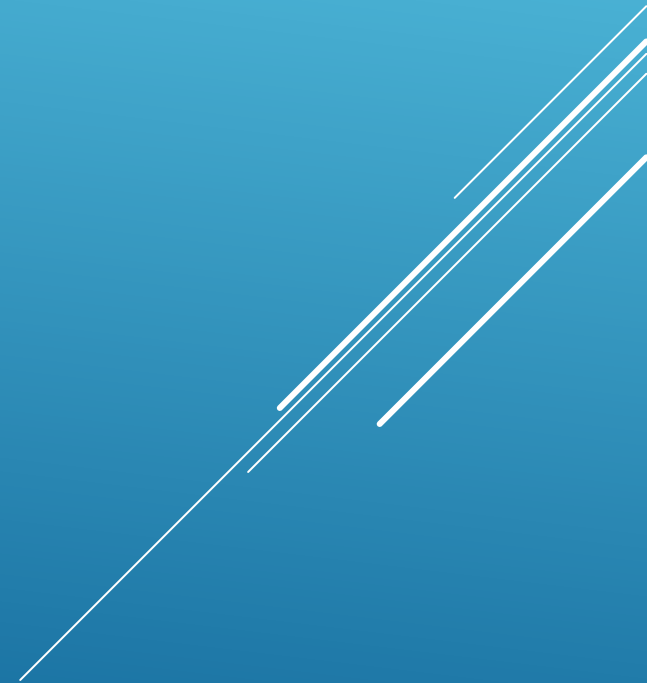


Role	Organisation
Community resilience building	Queensland Reconstruction Authority
Insurance	Suncorp SwissRE
Redesign agricultural systems	Catchment Management Authority

PEOPLE WHO ADAPT IN THE RECOVER
PHASE AND BUILD BACK BETTER



TIMEFRAMES FOR PLANNING AND IMPLEMENTATION



Features of good practice Disaster Risk Reduction

- What does good practice look like:
 - Integrated, adaptable planning
 - Clear governance
 - Good data = good exposure understanding
 - Understand community vulnerability
 - Assess infrastructure/asset tolerability
 - Agreed funding pathways focus on prevention
 - Continuous improvement



Every \$ invested on prevention saves between \$4 and \$7 in recovery