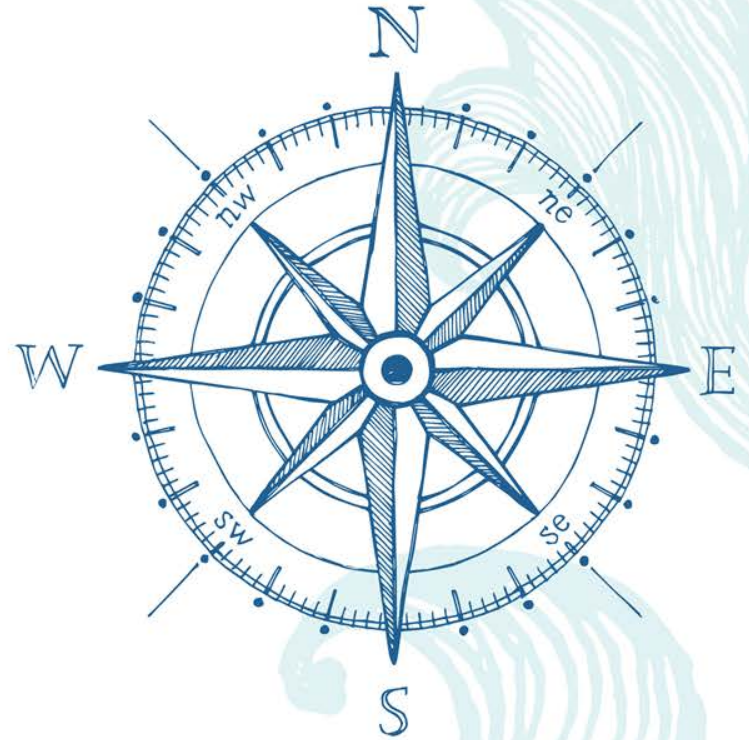


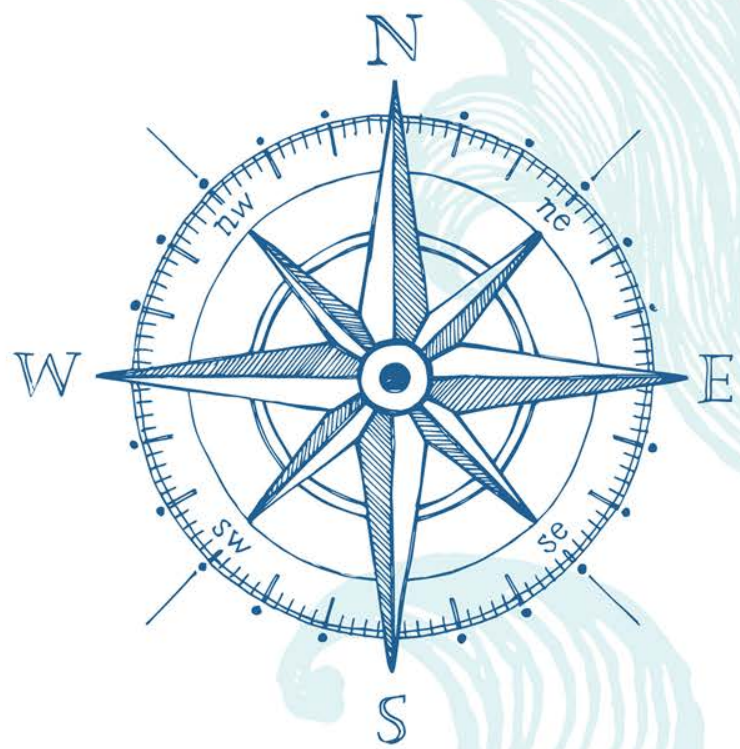
BUILDING COLLABORATIVE COMMUNITIES

NAVIGATING CHALLENGES, CHARTING INNOVATIONS





CLIMATE Impacts, Threats, Stressors, and YOU



Climate Impacts, Threats, Stressors, and Resilience: How to Prepare You

- Understand the types of threats and stressors that can interrupt normal campus operations.
- Understand how climate change and other stressors can interfere with campus operations and hazard recovery.
- Understand how to develop hazard mitigation plans and climate change adaptation plans to restore/minimize disruption of campus operations.
- Understand how to communicate the value of preparedness and resilience to campus stakeholders and stressors that imperil the campus.

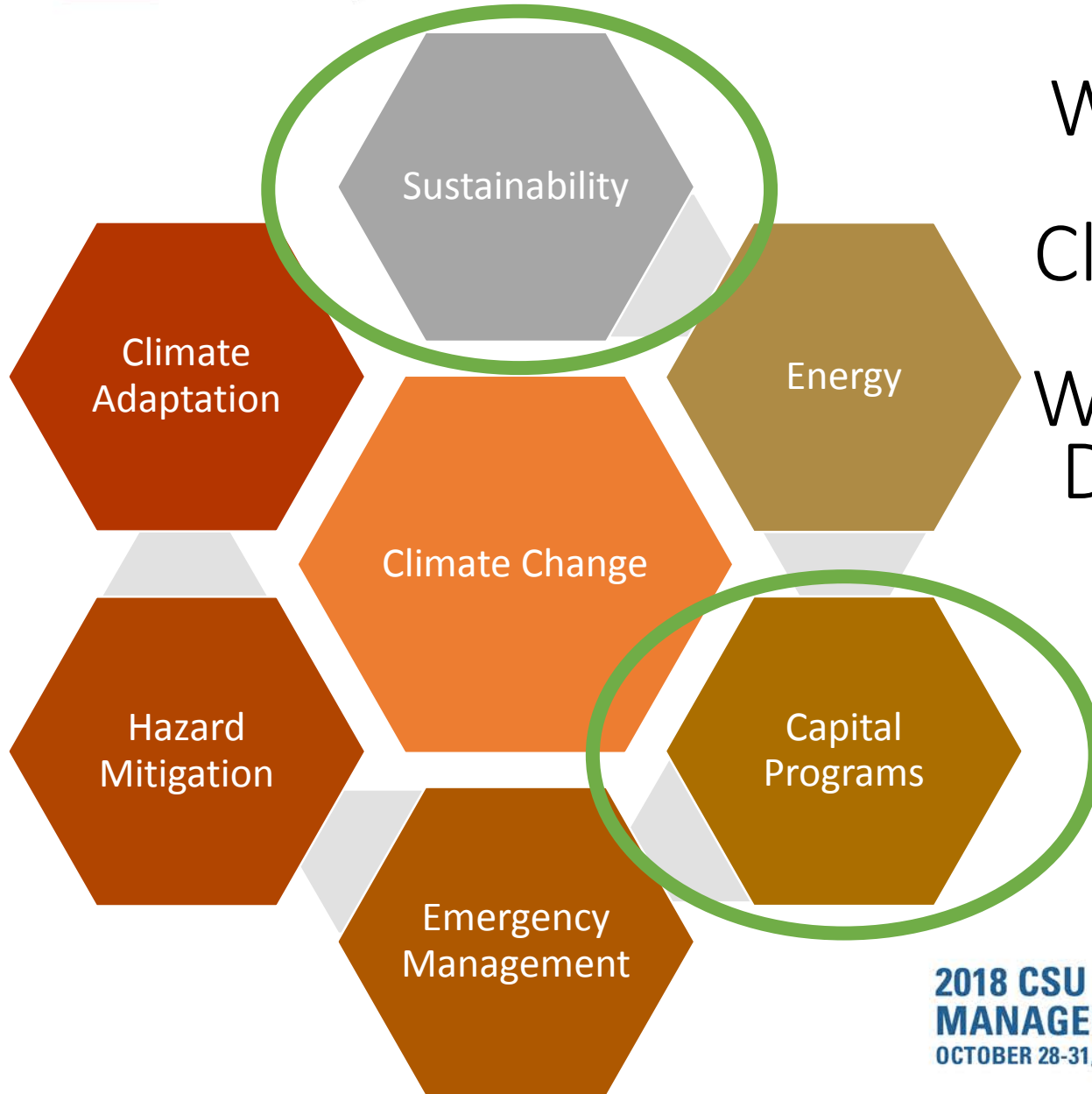
Get Out of Your Silos



“Continued emission of greenhouse gases will cause further warming and long-term changes in all components of the climate system, increasing the likelihood of severe, pervasive, and irreversible impacts for people and ecosystems.”

- Intergovernmental Panel on Climate Change





When it Comes
to
Climate Change,
We are All
Working On It In
Different Ways





What Can We Expect to See?

More frequent and intense heat waves

Reduced snowpack

Increases in wildfire events

More frequent and intense precipitation extremes

Increased sea levels



California's Fourth Climate Change Assessment

COMMUNITIES

BY 2050

HEAT WAVES IN CITIES

COULD CAUSE

2-3 TIMES MORE HEAT-RELATED DEATHS

Vulnerable populations will experience the worst of these effects.

TEMPERATURE

BY 2100

AVERAGE ANNUAL MAXIMUM DAILY TEMPERATURE IS PROJECTED TO

INCREASE BY 5.6°-8.8°

Depending on greenhouse gas emissions reductions. The greatest increase is seen with business-as-usual emissions levels.



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California's Fourth Climate Change Assessment

WATER

BY 2050
WATER SUPPLY FROM SNOWPACK
IS PROJECTED TO

**DECLINE BY
TWO-THIRDS**



WILDFIRE



**AVERAGE AREA BURNED
INCREASE BY 2100
IF EMISSIONS CONTINUE TO RISE**



**INSURANCE COSTS
INCREASE BY 2055
IN HIGHEST RISK AREAS**



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California's Fourth Climate Change Assessment

Impacts To Energy

- Hotter temperatures will increase annual electricity demand

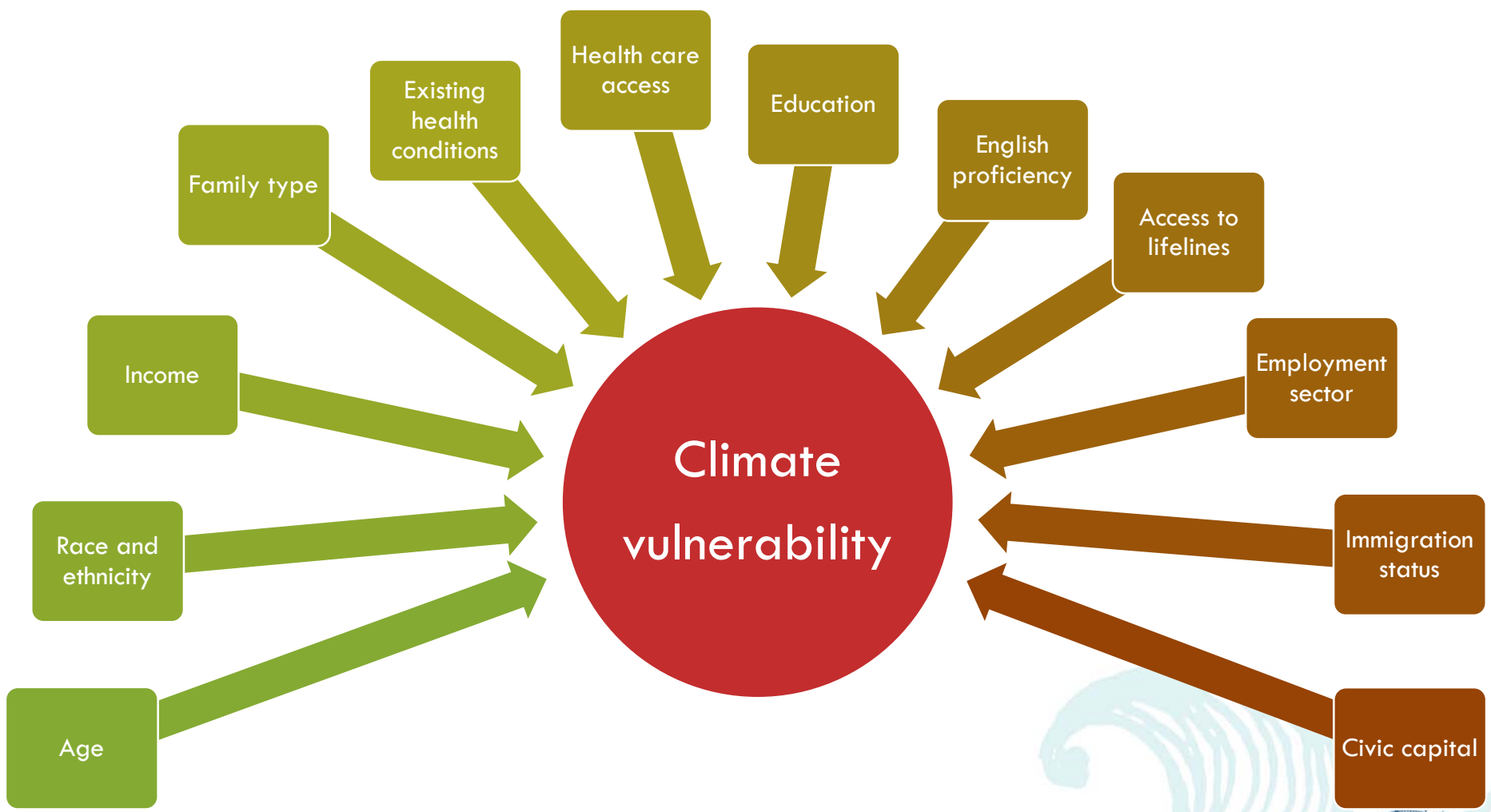
Impacts To Governance

- Climate changes also presents challenges to public agencies

Impacts From Sea Level Rise

- 31 to 67% of Southern California Beaches reduced by 2100

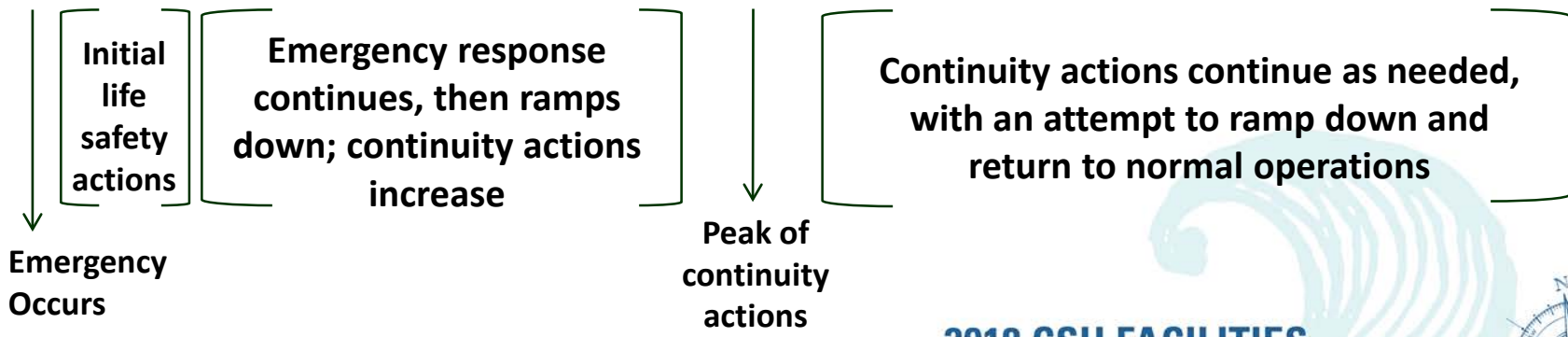






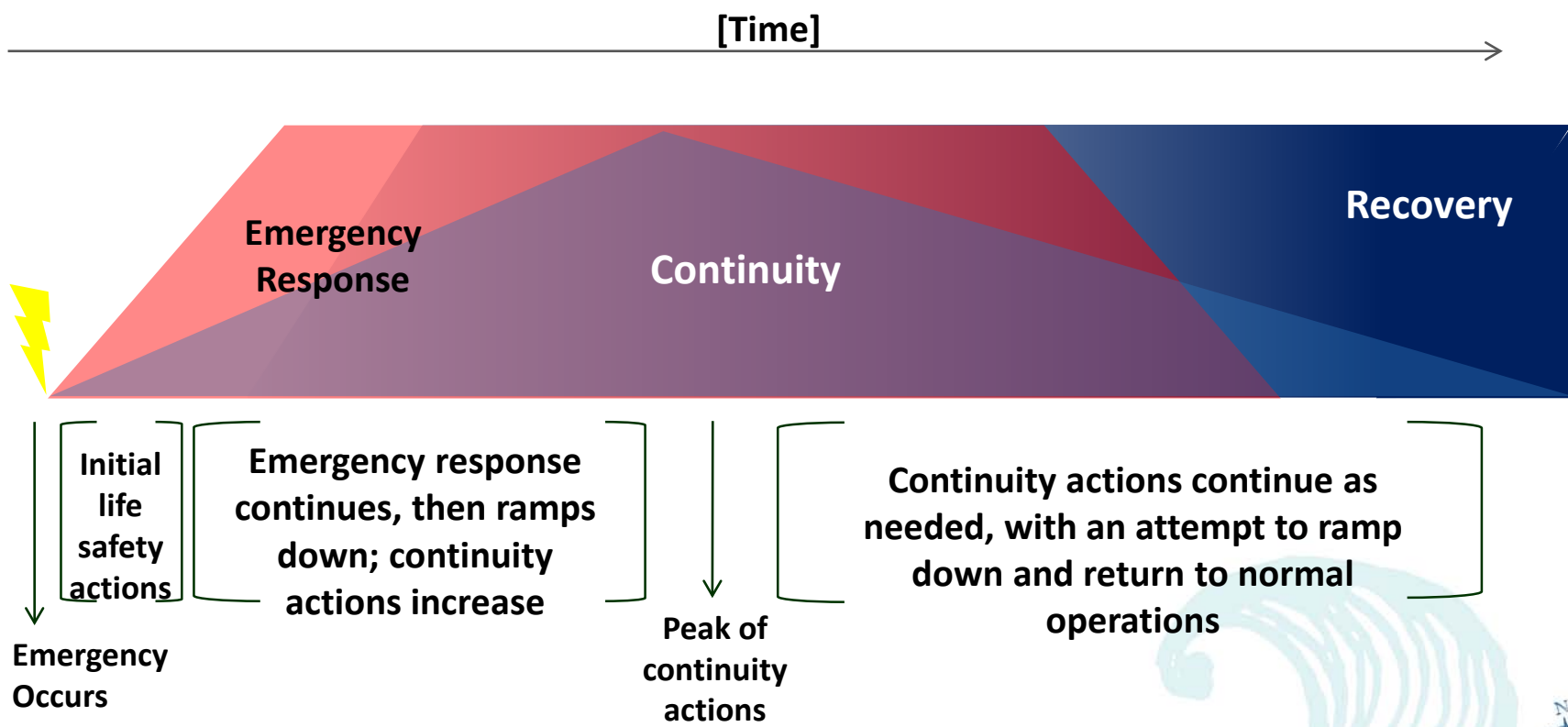
Emergency Management – Response and Continuity

[Time]





Response and Continuity expand under new conditions





Emergency management - Recovery



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What is Hazard Mitigation

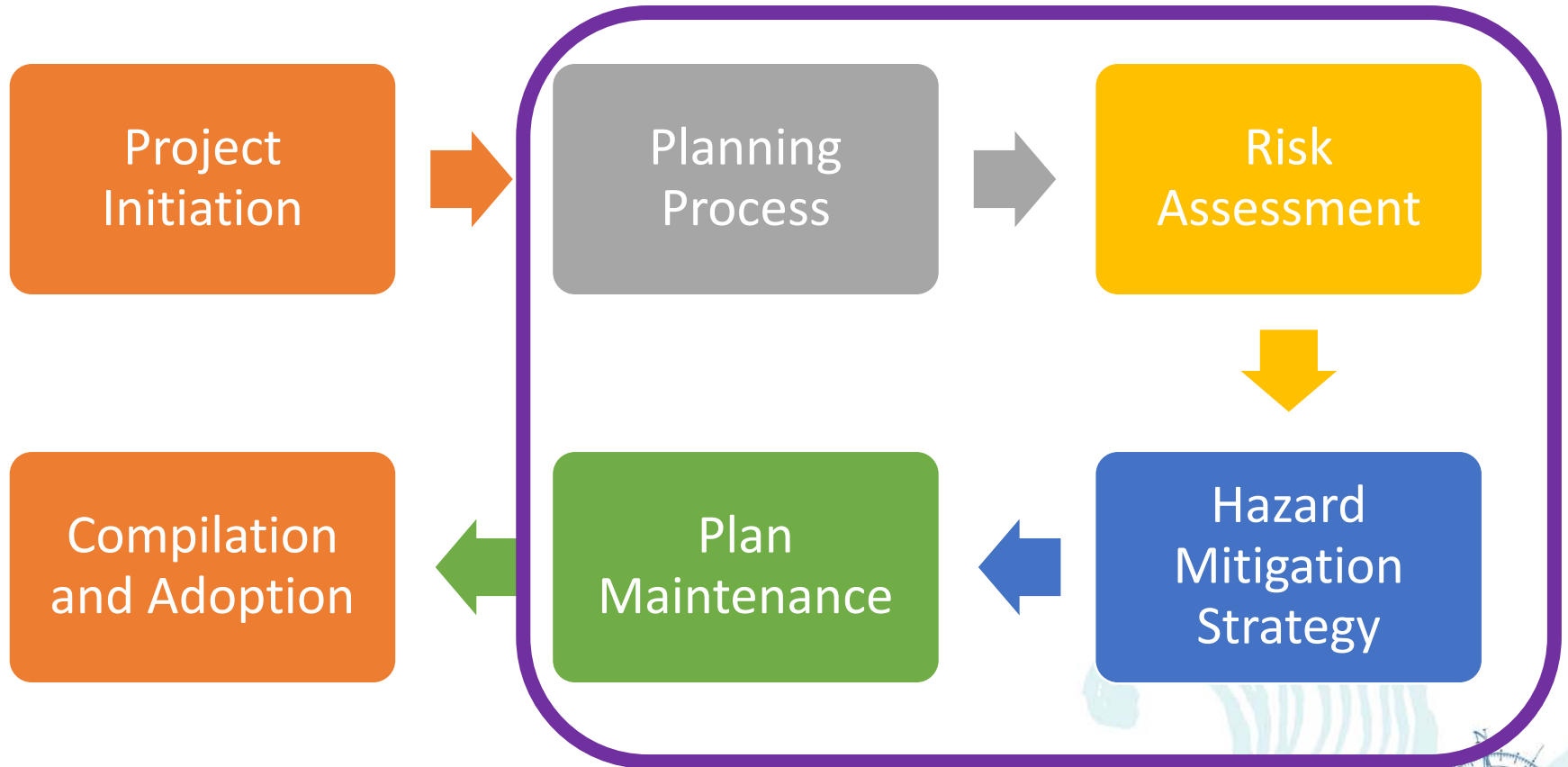


Hazard Mitigation

- Saves lives & investments
- Avoids disruption of essential services
- Reduces response and recovery costs
- Leads to sustainability

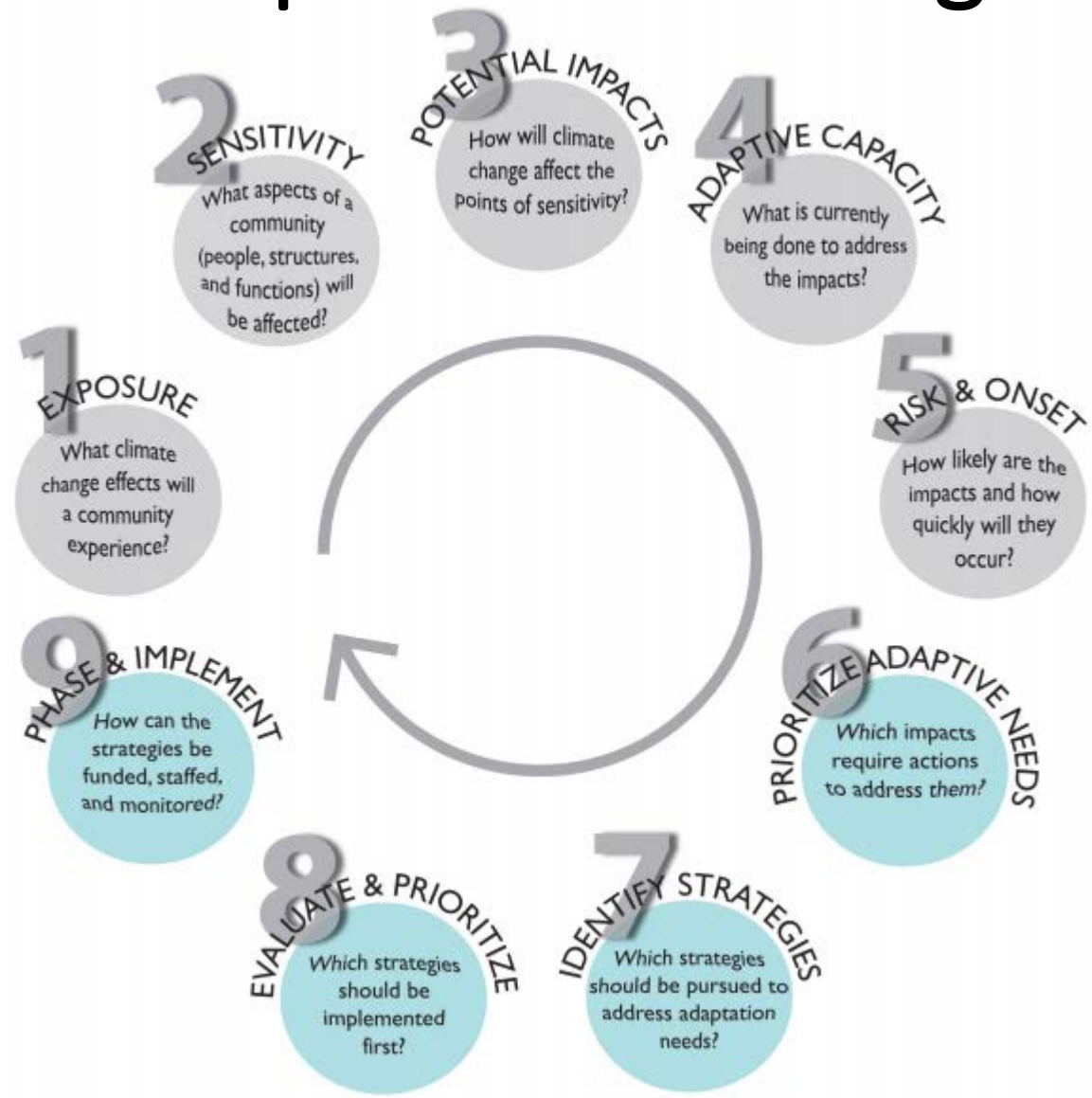


Hazard Mitigation Planning Process





What is Adaptation Planning



California State Hazard Mitigation Plan


MAP 1.B: California's Counties and Population Centers

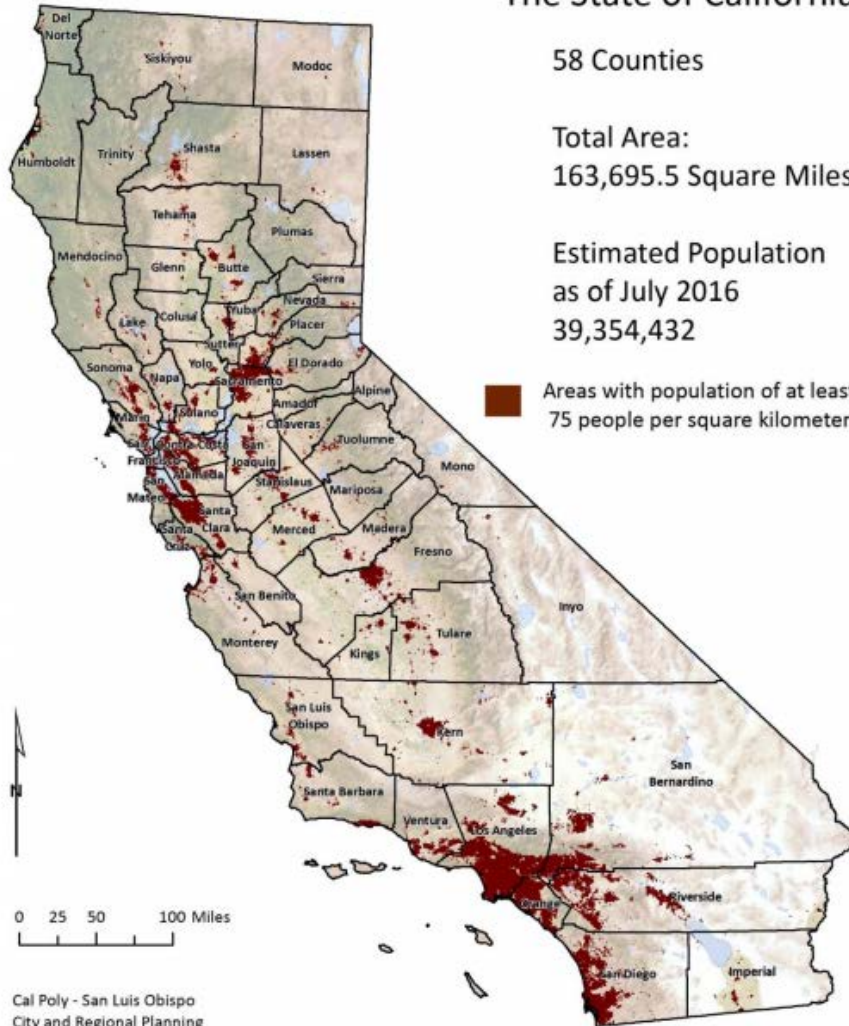
The State of California

58 Counties

Total Area:
163,695.5 Square Miles

Estimated Population
as of July 2016
39,354,432

 Areas with population of at least 75 people per square kilometer



Cal Poly - San Luis Obispo
City and Regional Planning
November 2017

Source: CA Dept. of Finance, P-1 Total Estimated and Projected Population for California and Counties: July 1, 2010 to July 1, 2060 in 1-year increments; ORNL LandScan 2015™ /UT-Battelle, LLC.

Created by C. Schall (dwh1.B - California's Counties and Pop Centers.esd)

Mandates directing the protection of state-owned property/ critical facilities (State Water Project, university systems, park systems, highways and bridges, and facilities owned or operated by the Department of General Services).



Current Activities in California

Local Government Adaptation Planning

CSU Leadership for State

Higher Education Leadership

State and Local Adaptation Plans

States and communities around the country have begun to prepare for the climate changes that are already underway. This planning process typically results in a document called an adaptation plan.

Below is a map that highlights the status of state adaptation efforts. Click on a state to view a summary of its progress to date and to access its full profile page. State profile pages include a detailed breakdown of each state's adaptation work and links to local adaptation plans and resources. Please move the map to view Alaska and Hawaii.





Availability of Funding

PDM/FMA	HMGP
2017 = \$90 Million	2017 = \$450 Million (4 DR)
2018 = \$230 Million	2018 = \$100+ Million (3 DR)



Eligible Activities

Table 3: Eligible Activities by Program

Eligible Activities	HMGP	PDM	FMA
1. Mitigation Projects	✓	✓	✓
Property Acquisition and Structure Demolition	✓	✓	✓
Property Acquisition and Structure Relocation	✓	✓	✓
Structure Elevation	✓	✓	✓
Mitigation Reconstruction	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓
Dry Floodproofing of Non-residential Structures	✓	✓	✓
Generators	✓	✓	
Localized Flood Risk Reduction Projects	✓	✓	✓
Non-localized Flood Risk Reduction Projects	✓	✓	
Structural Retrofitting of Existing Buildings	✓	✓	✓
Non-structural Retroming of Existing Buildings and Facilities	✓	✓	✓
Safe Room Construction	✓	✓	
Wind Retrofit for One- and Two-Family Residences	✓	✓	
Infrastructure Retrofit	✓	✓	✓
Soil Stabilization	✓	✓	✓
Wildfire Mitigation	✓	✓	
Post-Disaster Code Enforcement	✓		
Advance Assistance	✓		
5 Percent Initiative Projects	✓		
Miscellaneous/Other ⁽¹⁾	✓	✓	✓
2. Hazard Mitigation Planning	✓	✓	✓
Planning Related Activities	✓		
3. Technical Assistance			✓
4. Management Cost	✓	✓	✓

⁽¹⁾ Miscellaneous/Other indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.



What is Happening at the CO?

Grant Application- After 2017 Wildfires Declaration, CSU CO applied for a grant to develop mitigation plan, with \$200,000 budget.

Mutual Aid systems and practices are strengthening.

Campuses sharing best practices on response, continuity, recovery. Now time for mitigation and adaptation!





Out of 23 CSU Campuses...

- 20** have incorporated sustainability into guiding documents
- 19** have an interdepartmental sustainability committee or task force
- 15** have signed one of Second Nature's Climate Leadership Commitments
- 14** have a current AASHE STARS rating
- 11** have a campus sustainability plan
- 8** regularly produce a sustainability report





What Can Your Campus Do About This?

SYSTEM WIDE – Hazard Mitigation Grant and provide steering committee to organize planning.

CAMPUS- Work together! President, Executive staff, Sustainability Officers, Resiliency staff, facilities, emergency management, health center staff. Do not work in silos!

YOU- Recognize the threat, be creative, give ideas, think win-win.



Questions?



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THANK YOU

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Please fill out session evaluation using Guidebook.

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