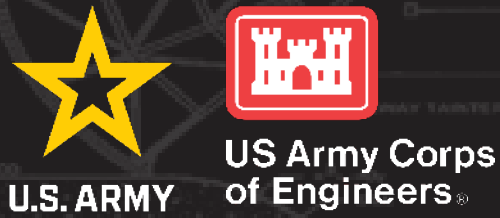


# WEATHERING CHANGE: CLIMATE IMPACTS ON COMMUNITIES AND STRATEGIES FOR RESILIENCE

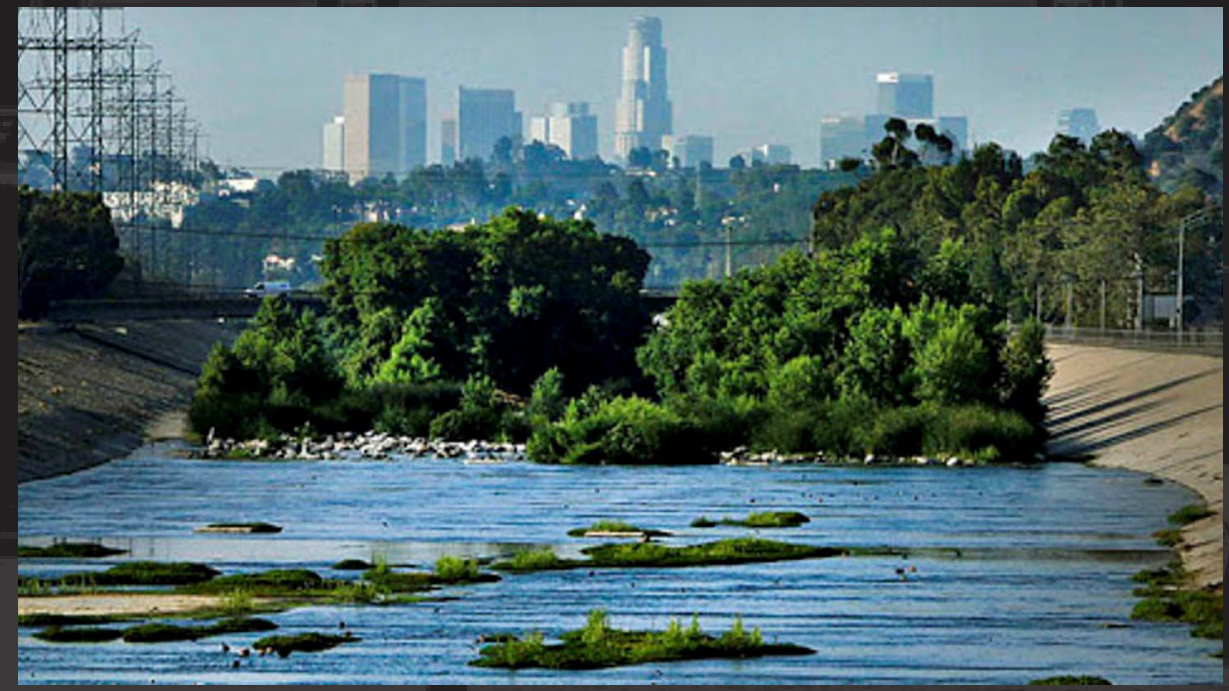
**Megan Whalen**  
*Watershed Program Manager, Urban Waters  
Federal Partnership LA River Watershed  
Ambassador*

**US Army Corps of Engineers, Los Angeles  
District**

**September 19, 2023**  
**2023 State of the Los Angeles River  
Watershed Symposium**



*“Delivering Bold Solutions to Serve and  
Strengthen All Communities”*



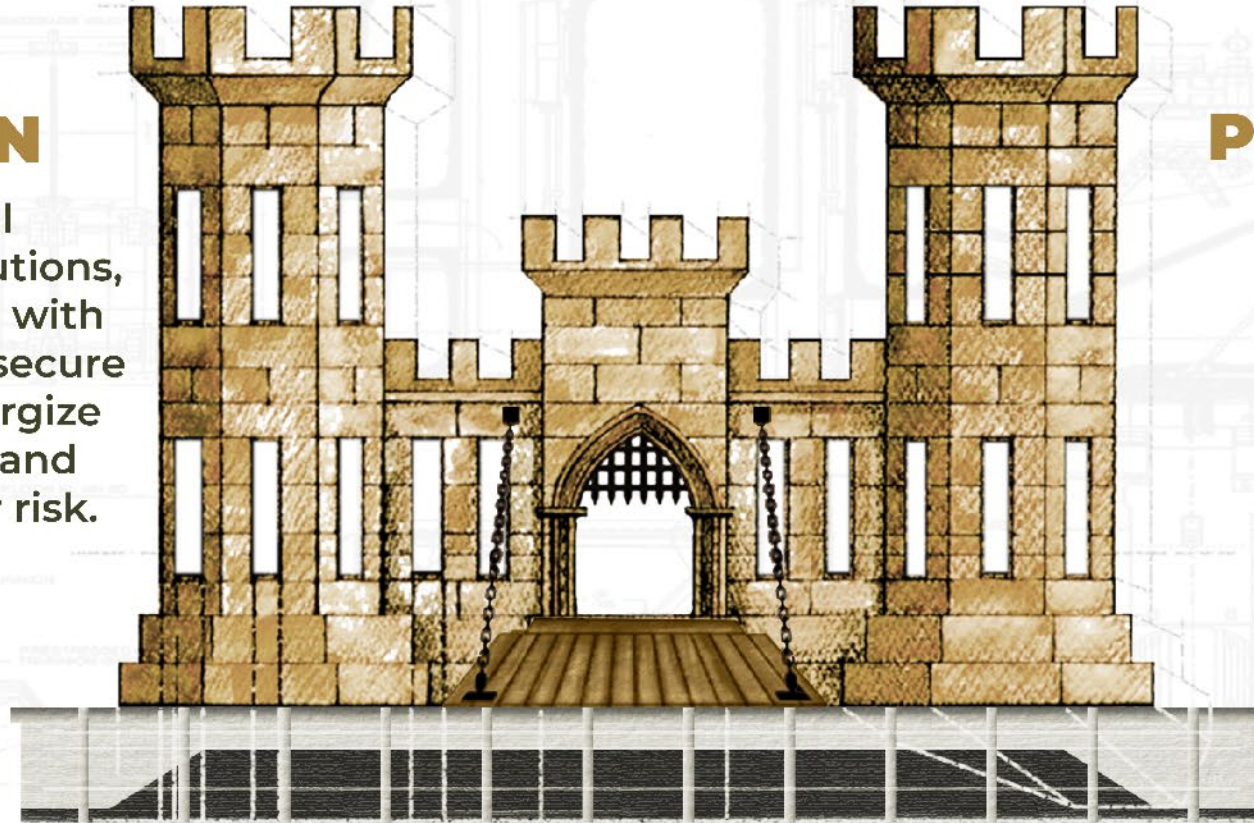


U.S. ARMY

# U.S. ARMY CORPS OF ENGINEERS

## MISSION

Deliver vital engineering solutions, in collaboration with our partners, to secure our Nation, energize our economy, and reduce disaster risk.



## PRIORITIES

PEOPLE

READINESS

PARTNERSHIPS

INNOVATE

**ENGINEERING SOLUTIONS FOR THE NATION'S TOUGHEST CHALLENGES**



U.S. ARMY

# STRATEGIC ENGAGEMENT AND RISK COMMUNICATION THROUGH THE LENS OF THE URBAN WATERS FEDERAL PARTNERSHIP



The Los Angeles River Watershed partnership has become a *national model of place-based coordination* and program implementation since its inception in 2011:

- Grown to a membership of **more than 45 organizations**, including representatives of **9 federal agencies**.
- Partners engage in a wide spectrum of work that includes interests as diverse as natural habitat restoration and storm water management to recreation and community economic development.
- More recent project priorities include **climate resilience, social and environmental justice**.





# BIGGER PICTURE: USACE RISK MANAGEMENT



- Identify project risks
- Is risk tolerable to accept and assume?
- Or do we need to mitigate risk (reduce/limit)?
  - ❑ Identify risk management measures

## Purpose of risk management:

choose technically sound, integrated actions to reduce risk after consideration of all the costs for risk reduction:

- environmental
- social
- cultural
- ethical
- political
- legal



**Risk management is: "The process of problem finding and initiating action to identify, evaluate, select, implement, monitor and modify actions taken to alter levels of risk as compared to taking no action."**






# ORGANIZATIONAL SHIFT: RISK COMMUNICATION

USACE has shifted towards managing and communicating risk with Civil Works projects:

• Risk  $\neq$  0



• Aging infrastructure + changing climate =  risks to current/future structures & people

•  understanding of personal + collective risk =  planning and preparedness



U.S. ARMY

# THE IMPORTANCE OF RISK COMMUNICATION



- **Understanding the audience** of your message will dictate the best ways to communicate risk
- Know that while models, data, and research help quantify what the risk is and are **important empirical tools**, it **may not** be the best way to communicate risk
- The communicator should be able to **distinguish what the most important** part of the message that is getting communicated is
- **Communication is critical in an emergency situation** where time can negatively or positively impact the outcome





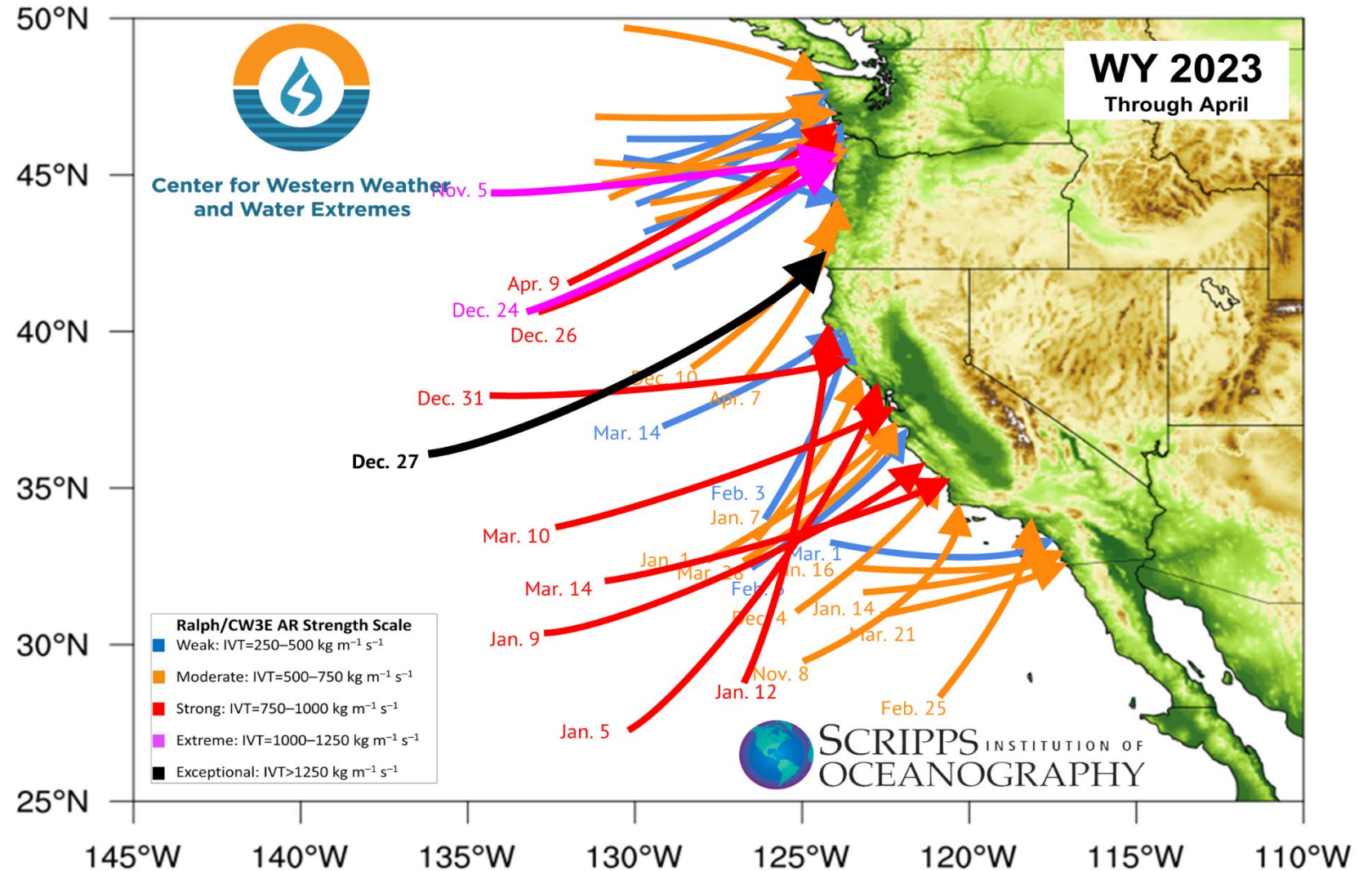
U.S. ARMY

# FORECASTING WEATHER AND RISK



## ATMOSPHERIC RIVERS THROUGH APRIL 2023

HOW MUCH PRECIPITATION IS COMING AND HOW MUCH CAN WE SAFELY STORE?





# HOW THE URBAN WATERS FEDERAL PARTNERSHIP (UWFP) CAN SERVE THE LOS ANGELES RIVER WATERSHED

- Provides representation to a platform of federal agencies and resources that can provide research, funding, and partnering
- “Built-in” representation via the Ambassador role who can connect stakeholders and advocate for projects, programs, and partnerships within their agency (i.e. USACE) and beyond
- The UWFP can benefit from larger goals and initiatives of the federal government to address climate change, resiliency, and environmental justice.







U.S. ARMY



# AMBASSADOR'S VISION FOR THE LOS ANGELES RIVER WATERSHED





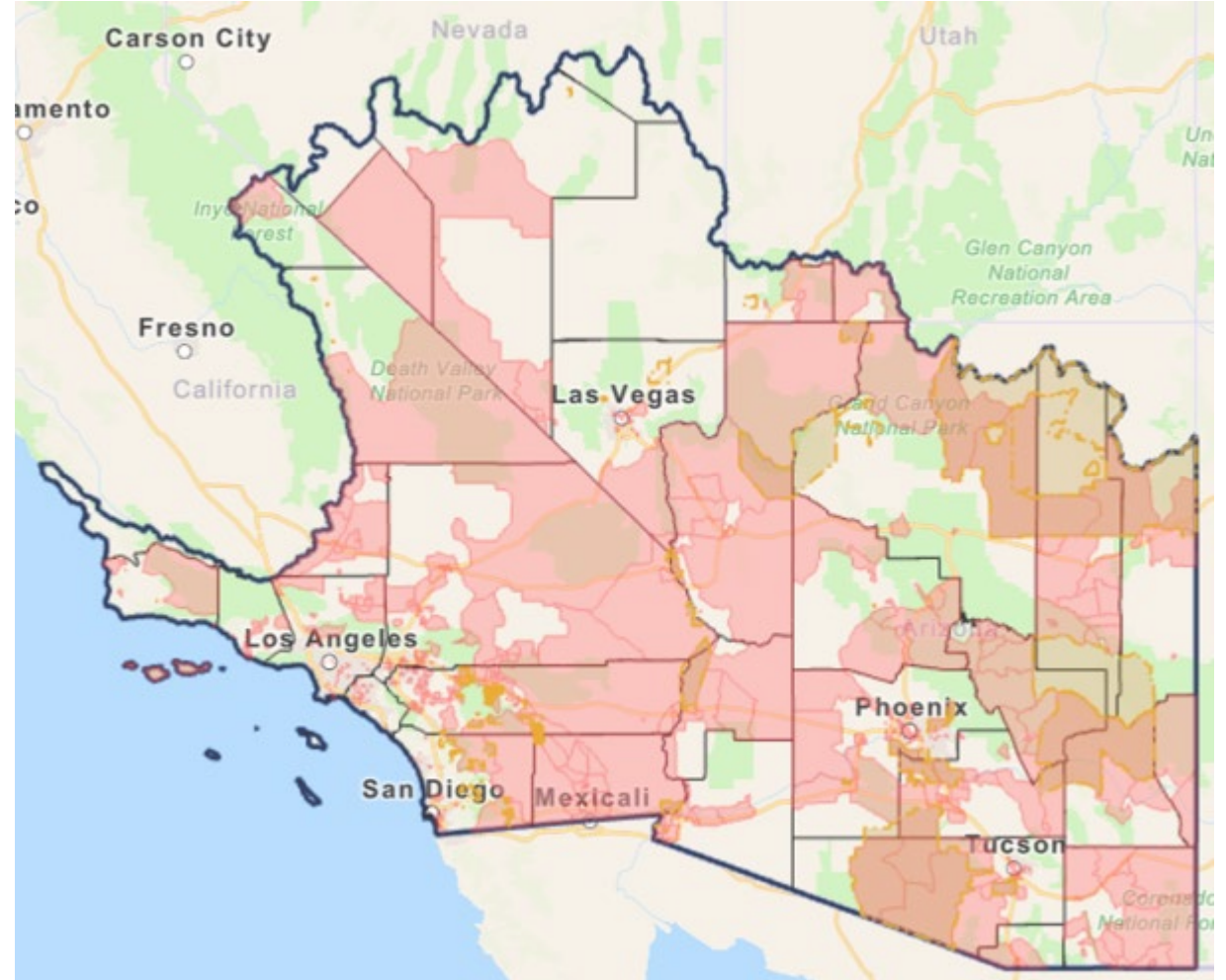
U.S. ARMY

# FOCUSED ASSISTANCE AND OUTREACH TO DISADVANTAGED COMMUNITIES

10



- The Los Angeles River Watershed and many surrounding areas are considered economically disadvantaged
- Climate change has increased the likelihood for extreme events that may require emergency response and evacuation
- Connect people and communities to resources such as Silver Jackets, Floodplain Mapping Services, and many other programs that can help with planning and preparedness



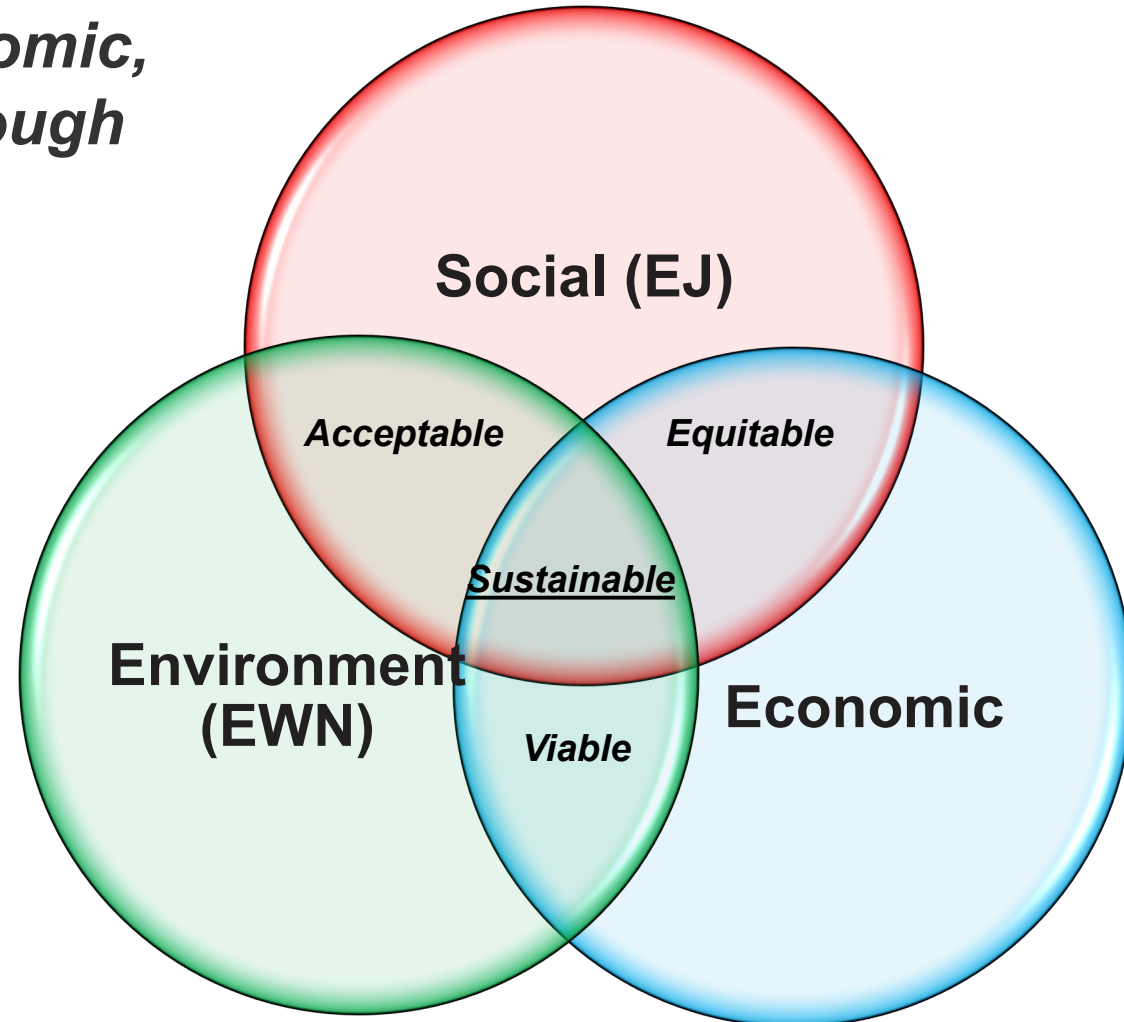


# STRATEGIC INITIATIVES TO INCREASE RESILIENCY



*Engineering With Nature® is the intentional alignment of natural and engineering processes to efficiently and sustainably deliver economic, environmental, and social benefits through collaborative processes.*

In order to build sustainable projects that are **acceptable**, **equitable** and **viable**, we must evaluate the social and environmental benefits equally with the economic benefits.





U.S. ARMY

# NATURE-BASED FEATURES

12



## More tools in the toolbox to meet future demands

- Use natural physical and biological processes
- Provide multiple benefits
- Can be used in combination with other approaches (green-hybrid-grey, policy)
- Are cost effective
- Can be more adaptable over time
- Are less well understood by engineers in terms of their performance
- Prioritize where they match the problem and appropriate environmental conditions

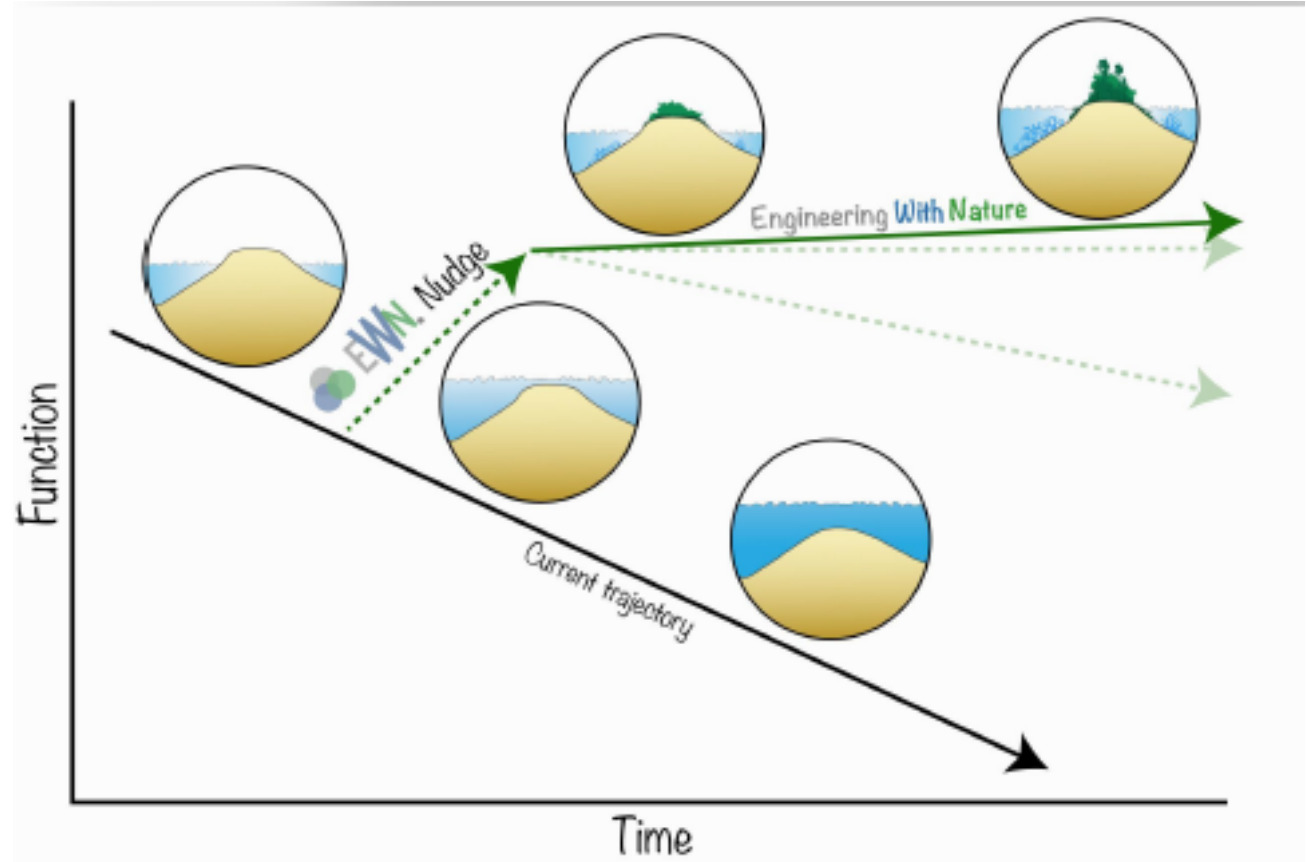




U.S. ARMY

# EWN IS AN INVESTMENT IN THE FUTURE

- “Run to where the ball is going to be”: **Where will landscape features create the most value in the future?**
- **Size it right: nature-based features are scalable, affordable, and innovative.**
- **Solutions are place-based: Requiring local knowledge and systems thinking.**





U.S. ARMY



# WHY LOS ANGELES DISTRICT?

- **National scale: WRDA 2020 requires that we consider and implement nature-based solutions**
- **Regional scale: Our District stakeholders demand multi-benefit solutions; This is the cost of doing business**
- **Local scale: More threatened and endangered species endemic to this area than any District except Hawai'i and our regulatory environment makes EWN a more cost-effective option in many cases**



U.S. ARMY

# BUILDING STRONG



**QUESTIONS?**