

## ACRONYMS AND TERMINOLOGY

The terminology and acronyms used throughout this guide are defined below based on the years of collective adaptation experience of WUCA. This comprehensive understanding is based on the following:

- Shared and individual adaptation project experience at WUCA utilities
- Extensive literature and adaptation case study review
- Knowledge-sharing between WUCA members and other water sector colleagues (e.g., WUCA Annual Meetings and WUCA's Climate Resilience trainings)
- External partnerships with adaptation scientists, planners, engineers, and water sector practitioners

### Acronyms and Abbreviations

BFE	Base Flood Elevation
BIPOC	Black, Indigenous, and People of Color
BRIC	Building Resilience Infrastructure and Communities
CIP	Capital Improvement Plan
DAPP	Dynamic Adaptation Policy Pathways
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
IPCC	Intergovernmental Panel on Climate Change
JBA	Joint Benefits Authority
LEED	Leadership in Energy and Environmental Design
NOAA	United States National Oceanic and Atmospheric Administration
RO	Reverse Osmosis
USACE	United States Army Corps of Engineers
WUCA	Water Utility Climate Alliance

### Terminology

**100-year Floodplain/100-year Flood Event** – Coastal areas with a 1 percent annual chance of flooding.

*(Developed from [Federal Emergency Management Agency](#))*

**Adaptation** – Efforts to avoid, minimize, adapt to, and/or recover from the effects of climate change.

*(Developed from [Environmental Protection Agency](#))*

**Adaptation Pathway** – Actions that can be implemented progressively, depending on how the future unfolds and knowledge develops.

*(Developed from [Werners et al. 2021](#))*

**Adaptive Risk Management** – The iterative process of adaptation wherein decisions need to be implemented, monitored, and adjusted as needed based on practical experience as future conditions are realized.

*(Developed from [Hochrainer-Stigler et al. 2021](#))*

**Base Flood Elevation** – The elevation of surface water resulting from a flood that has a 1 percent chance of equaling or exceeding that level in any given year as designated by FEMA.

*(Developed from [Federal Emergency Management Agency](#))*

**Buyout** – The government purchase of private property, typically one with an associated risk like flooding, from a willing seller. The government then demolishes existing structures and may prohibit or limit future development, usually allowing the property to naturally revert to open space in perpetuity.

*(Developed from [Georgetown Managed Retreat Toolkit](#))*

**Co-benefits** – The positive effects that a policy or measure aimed at one objective might have on other objectives, thereby increasing the total benefits for society or the environment.

*(Developed from [Intergovernmental Panel on Climate Change](#))*

**Environmental Justice** – A social movement that strives for all communities to experience equal protection from environmental health hazards and equal participation in the decision-making process to have a healthy environment, regardless of race, color, national origin, or income. A movement that seeks to address unfair exposure of marginalized communities to environmental harms and hazards.

*(Developed from [Environmental Protection Agency](#))*

**Equity (Water Equity)** – When all communities have access to safe, clean, affordable drinking water and wastewater services; are resilient in the face of floods, droughts, and other climate risks; have a role in decision-making processes related to water management in their communities; and share in the economic, social, and environmental benefits of water systems.

(Developed from [U.S. Water Alliance](#))

**Implementation** – The process of making something active or effective; putting a decision, plan or project into effect; execution.

(Developed from [Oxford Languages](#))

**Impervious Area** – An area with a surface that water cannot penetrate. In these areas, precipitation does not seep into the ground, but runs off into storm sewers or local water bodies.

(Developed from [United States Geological Survey](#))

**Joint Benefits Authority (JBA)** – A tool that allows multiple city agencies to work together, in collaboration with local communities, to finance and deliver transformative resilient infrastructure, and to attract new investment.

(Developed from [World Resources Institute](#))

**Leading Practice** – Recognizing that adaptation is a nascent field and best practices have yet to be established; leading practices are those endorsed by WUCA member utilities as an emerging practice with tested results and promise. In this guide, leading practices are defined by short statements and supported by examples and resources.

(Developed by [Water Utility Climate Alliance](#))

**Living Shoreline** – A broad range of techniques for providing shoreline stabilization through the use of ecological, or “soft” approaches, as opposed to hard infrastructure, to accommodate natural coastal processes and reduce shoreline erosion, produce storm protection, and enhance habitat value.

(Developed from [Georgetown Managed Retreat Toolkit](#))

**Nature-based Solutions** – Sustainable planning, design, environmental management, and engineering practices that weave natural features or processes into the built environment to promote adaptation and resilience to combat climate change, reduce flood risk, improve water quality, protect coastal property, stabilize shorelines, reduce urban heat, and/or add recreational space.

(Developed from [Federal Emergency Management Agency](#))

**Non-Stationarity** – Ever-changing; differences in the statistical characteristics (e.g., mean, variance, covariation) of a variable, or in statistical relationships across space or time. In simple terms, what used to be normal is not normal anymore. A stationary time series of historical environmental data has statistical properties or moments (e.g., mean and variance) that do not vary in time. Non-stationarity is the status of a time series whose statistical properties are changing through time (e.g., due to climate change).

(Developed from [Rollinson et al. 2021](#))

**Mainstreaming** – The process of integrating something into existing processes, structures, and frameworks; making something new start to be considered normal.

(Developed from [Cambridge Dictionary](#))

**Managed Retreat (or planned retreat)** – The voluntary movement and transition of people, infrastructure, and ecosystems away from vulnerable coastal areas.

(Developed from [Georgetown Managed Retreat Toolkit](#))

**Marginalized Community** – Groups and communities that experience discrimination and exclusion (social, political, and economic) because of unequal power relationships across economic, political, social, and cultural dimensions.

(Developed from [National Collaborating Centre for Determinants of Health](#))

**Mitigation** – Reducing climate change. Involves reducing the flow of heat-trapping greenhouse gases in the atmosphere.

(Developed from [National Aeronautics and Space Administration](#))



**Public-Private Partnership** – A partnership between one or more government agency and private party for providing a public asset or service for which parties share financial, implementation, and/or maintenance responsibilities.

(Developed from *Public-Private Partnerships Knowledge Lab*)

**Resilience** – The capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance by responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.

(Developed from *Intergovernmental Panel on Climate Change*)

**Risk (Climate Risk)** – The potential adverse consequences of a climate-related hazard or of adaptation or mitigation response to such hazard, on lives, livelihoods, health and wellbeing, ecosystems and species, economic, social and cultural assets, services, and infrastructure.

(Developed from *Intergovernmental Panel on Climate Change*)

**Saltwater Intrusion** – The encroachment of seawater into fresh groundwater supplies.

(Developed from *United States Geological Survey*)

**Sea wall** – A wall or embankment to protect the shore from erosion or to act as a breakwater.

(Developed from *Merriam-Webster*)

**Setback** – The required distance a structure must be located behind a baseline.

(Developed from *Georgetown Managed Retreat Toolkit*)

**Shoreline Hardening** – Installation of engineered shore structures to stabilize sediment and prevent erosion and/or provide flood protection.

(Developed from *Gittman et al. 2016*)

**Socially Vulnerable** – The propensity and predisposition for communities to experience negative effects caused by external stresses on human health. Such stresses include natural or human-caused disasters or disease outbreaks. (Developed from *Centers for Disease Control*)

**Storm Surge** – The abnormal rise in seawater level during a storm, measured as the height of the water above the normal predicted astronomical tide. Caused primarily by a storm's winds pushing water onshore.

(Developed from *National Oceanic and Atmospheric Administration*)

**Uncertainty** – A state of incomplete knowledge that can result from a lack of information or from disagreement about what is known or even knowable. Uncertainty can be represented by quantitative measures (e.g., a probability density function) or by qualitative statements (e.g., reflecting the judgement of experts).

(Developed from *Intergovernmental Panel on Climate Change*)

**Useful Life** – The number of years an asset is likely to provide benefits and remain in service.

(Developed from *Internal Revenue Service*)

**Vulnerability** – The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

(Developed from *Intergovernmental Panel on Climate Change*)

