

COASTAL RESILIENCE SCORECARD

Waterfront Alliance and ARISE-US

SCORING & USER GUIDE



2025

THIS GUIDE

The purpose of this document is to provide additional guidance for how to use the **Coastal Resilience Scorecard Scoring Tool** (Excel). The document also builds upon concepts presented in the Introduction and Appendices of the full Scorecard and provides other key information.

SELF-SCORING SCHEMA

Users are invited to **self-score** their city's positioning to date on each question of each chapter of the Scorecard. Our suggested scoring schema is as follows:

Score	Rationale
0	Matter has not been recognized and/or has not been addressed at all.
1	Matter is recognized but only basic (if any) plans exist and few (if any) measures have been taken to address it.
2	A sound plan exists and some measures have been taken to address the matter, but the larger part of the problem remains yet to be addressed.
3	Reasonable progress on planning and execution has been made, but a few substantial gaps still persist.
4	Only minor gaps remains to be remediated and/or resolved for the matter to be fully addressed.
5	The matter is fully addressed with superior design and implementation.

Note: scoring is subjective and while it can be substantiated with quantitative metrics, the purposes is to primarily identify relative strengths and weaknesses against the guidance and validation criteria. Users may, alternatively, identify other scoring schema (for example, red, yellow or green color coding). Whichever schema they use, users should also provide notes justifying the rationale for each score. Scores should then be aggregated for each Essential to create a summary panel of ten scores (one averaged score per Essential), which represents the city's baseline from which it can plan how to move forward and measure its progress in future years.

Please note that the Scorecard is not claimed to be objective, but it is systematic in its coverage of the issues. It is highly recommended for the Scorecard to be used in a multi-departmental and multi-stakeholder setting (working groups, workshops with facilitated discussion) to reduce assessment subjectivity through balanced opinions and provided proof of evidence. This can help bring out the agreed 'one version of truth' for the city.

All sections for the Ten Essentials in the Scorecard do not have to be completed simultaneously. For example, it may make sense to start with Essentials where you know you have the best data, or where the biggest issues are known to exist, and come back to the others later.

The Scorecard will probably generate questions to which you do not immediately have answers. Mark these for further research and exploration – agenda-setting and prioritization is a key output of the Scorecard. It may also direct attention to issues that a city cannot immediately control – for example, the energy or water system may be owned privately, or neighboring communities may not be ready to help towards reducing coastal disaster risk (for any reason). However, if those issues nevertheless affect the **coastal resilience** of the city, they need to be planned for even if, in the short-term, they cannot be corrected. In the longer-term, they become subjects for discussions and negotiations with asset owners, advocacy, lobbying and legislation and working through industry associations to bring about the necessary changes.

The Scorecard is intentionally designed to address the universe of **coastal resilience** issues, with the understanding that no city in the world will ever achieve the maximum score. On one hand, there is no such thing as total invulnerability in any coastal city to **coastal disaster risks**, and we certainly do not want the Scorecard to encourage complacency! On the other hand, the Scorecard itself implies in several places the taking of actions that, though they would be highly beneficial, have never, as far as we are aware, been attempted. In this sense, we hope that the Scorecard will trigger innovations and improvements in practice, as well as enable the baselining just described.

While scorecards are very good at creating baselines, they are not always so good at resolving issues about how to move forward, with what priorities and sequence, and with what business case. While in many cases the required actions will be obvious, this is not always the case and issues of prioritization, funding, engagement, and other factors may need to be resolved. Aware of this shortcoming, ARISE-US has created an **Action Guide for Scorecard** users, which contains methods for identifying actions required, framing priorities and projects, and creating funding or investment for those¹.

Note the following:

- It is possible to average the ten summary scores to create a single master score for the scorecard as a whole, but unless the city scores very consistently across all ten Essentials, this is not recommended as strengths in some areas may average out (and so, obscure) significant weaknesses in other areas.

¹ Available in 3 separate chapters: <https://www.undrr.org/publications/Scorecard-ActionGuide-Ch2>, <https://www.undrr.org/publication/Scorecard-ActionGuide-Ch3>, and <https://www.undrr.org/publication/Scorecard-ActionGuide-Ch4>. An introduction (Chapter 1) is in preparation.

- We do not "weight" the scores in the version of the scorecard offered here, to make some Essentials count for more than others. This is because no weighting will satisfy every city's needs. Users may, however, wish to apply weights for their city. Keep in mind, if you do this, that all the Essentials are just that - *essential* - so you should avoid weighting some Essentials so highly that you excessively minimize others.

HIGH-LEVEL REQUIREMENTS

Successful immediate and long-term **coastal resilience** for a city requires significant investment in:

- Understanding the factors upstream of a **coastal disaster** which increase vulnerability, such as weak or poorly enforced building codes, unhardened or poorly sited infrastructure, or lack of preparation and readiness
- Understanding the interplay between **chronic coastal stresses** (i.e., climate change, sea level rise, habitat loss, social or economic stress) and **acute** and/or **cascading events**. **Chronic coastal stresses** can predispose an area to a disaster, or make it worse, for example by damaging natural buffers such as wetlands; or they can hinder **recovery**, for example, where social or economic stress slows down economic recovery. Conversely, **acute events** can significantly exacerbate **chronic coastal stresses**, for example, where a hurricane damage further weakens protective reefs or places further economic burden on a resource-constrained city
- Understanding and seizing opportunities to mitigate **coastal disaster risks**, by strategies as diverse as ecosystem restoration and conservation, structure elevation, flood and wind hardening, building code changes, city participation to increase resilience, reducing the vulnerability of critical infrastructure, community engagement, etc.
- In the longer-run (and in extreme cases, in the short-run too), understanding how the city needs to adapt to a dynamic coastline physically, given sea level and climate change, combined with urbanization. In some cases, assessment will indicate the requirement to implement managed retreat of existing homes, businesses and infrastructure
- Planning in advance for event management and expedited post-event recovery, on the assumption that at some point a **coastal disaster** may occur, however much mitigation has been applied, and that the faster the city recovers, the lower the impact of the disaster

BENEFITS OF USE

The Scorecard helps to create a baseline through sets of thematic questions that enable cities to assess their resilience in the face of **coastal disaster risk**. In providing that baseline, it allows measurement of progress in moving forward, or of the impact of retrograde steps where for example a city expands into a flood zone. Cities can then identify and implement the steps required to protect their communities, and in so doing:

- Reduce the severity and extent of a **coastal disaster**.
- Reduce the risk of:
 - Loss of life or injury
 - Damage to property - private or public
 - Business interruption and economic damage
 - Damage to infrastructure and loss of key infrastructure services
 - Crop or livestock destruction from saltwater inundation or flooding
 - Harm to water quality in the city
 - Erosion and landslides/mudslides
 - Long-term health-related disabilities created event injuries, stress and trauma, including post-traumatic stress disorder (PTSD)
 - Harm to pets, wildlife and biodiversity (including endangered species) around the city
- Reduce numbers of required evacuations in the city
- Protect the amenity value in wild landscapes and help to safeguard the mental and physical health benefits of outdoor recreation
- Ensure preparations are made for temporary loss of services from lifeline systems, retail, city facilities and so on.
- Better position individuals and enterprises within the city to transfer **coastal disaster risk** through insurance coverage.
- Enable city-wide collaboration between diverse groups of stakeholders, and between cities, in the development and deployment of more effective **coastal disaster risk reduction** strategies for individual properties, neighborhoods and the surrounding areas

INTENDED USE

Anyone who is interested in reducing **coastal disaster risk** in their communities should use the Scorecard, supported as required by the necessary expertise and knowledge from others. This includes, but is not limited to:

- Government departments at all levels (federal, state, local) - mayors' or governors' offices, planners, emergency managers, first responders, law and order, economic development, city development, finance and others. engaged in some aspect of increasing city resilience.
- Business owners and associations - both large businesses and small-medium enterprises (SMEs), seeking to reduce workforce, cashflow and asset risk through closer integration of their risk management activities with government.
- Owners of city assets - for example, ports and harbors.
- Farmers and landowners seeking to preserve the value of their land holdings.
- Utilities and infrastructure owners wishing to ensure continuity of service and target investment to that end.
- Insurers, banks and other risk-assuming financial institutions wishing to understand and reduce their exposure.
- Neighborhood organizations such as faith-based organizations or home-owner associations (HOAs) seeking to build city resilience.
- Individual citizens.
- Academia - universities and research organizations supporting the efforts of cities to increase their resilience.
- NGOs assisting any of the above, for example, United Nations Development Program (UNDP) or World Food Program (WFP).

All relevant stakeholders should, if possible, work together to complete the Scorecard and frame plans together for moving forward, but it is rare that *all* such stakeholders are engaged, at least to begin with. We suggest you get started with what and who you have available and then invite other stakeholders to fill in the gaps and validate scores awarded, and/or use the results to embark on the communication, persuasion and dialog required to bring other stakeholders into alignment and into collaboration. Essential 1 enables you to assess the completeness of your stakeholder group and the effectiveness of your governance structure.

VERSIONS

The Scorecard is provided to the public domain in two versions:

- This **long form Scorecard** designed to support in-depth study, requiring specialists and expert input, and perhaps taking several weeks to complete

- A separate **short form Scorecard** designed to focus on a preliminary understanding of the subject, support consensus-building workshops, and also to function as a more approachable macro summary of the baseline for initialization of a **coastal resilience** body of work

Both the long and short form versions of the Scorecard are accompanied by an Excel-based **self-scoring tool** created by Jacobs Engineering. We also plan to explore a digitalized version featuring a user-specific workbench functionality, including a secure workspace and private data storage for each participating city that pilots the Scorecard during Phase 2 of the **Coastal Resilience Partnership** slated to begin in early 2026.

RESULTS

- Users will self-score the city within each question; the box to the right of each question has both Guidance and Validation; Guidance is more general and Validation tends to be more specific although all material in the box has been drawn from multi-stakeholder expertise in the particular **coastal disaster risk reduction** and **coastal resilience** matter
- Once all scores have been entered into Excel, averages and ranges will auto-calculate and visualize on the "Summary" tab - as per the example to the right, if all questions in Essential 10 received a 5 (top score) - a complete line would be drawn. Varying scores across all the Essentials will build a radial visualization that will help users identify relative strengths and weaknesses (i.e., gaps)

Summary Score Visualization

