

EARLY DESIGN RESEARCH AND BRAINSTORM

The Serious Games (WP 4) team participated in stakeholder workshops to solicit feedback and discussions to identify areas of need that simulations and social gaming can best address. The team also conducted a thematic synthesis of existing climate resilience games in order to identify designs that have been employed successfully and unsuccessfully for simulations and social gaming with communities. The following design elements were identified as common effective approaches in the design of community-oriented climate resilience games:

- Comprehensive information for the user to access via a library/menu to review key concepts and seek additional information beyond the game
- Backstory or the use of characters/personas to improve relatedness with and motivation towards the content presented
- Resource management to highlight limitations of a single individual or organization within a larger community system

Building upon stakeholder discussions and the review of existing climate resilience games, the team then conducted a design workshop to ideate upon initial ideas and designs for the proposed games. This resulted in an initial concept for a game to address major stakeholder concerns around preparedness, action, long-term recovery, and communication across the community network. The following design concepts were identified to best address the target audience and community needs:

- Playable on a mobile device
- Can be played by 1-4 people on the same device using pass-and-play / turn taking
- Developed modularly as a sequence of vignettes (i.e., minigames) to allow for presentation of different perspectives and key takeaways for the players while also taking advantage of the output of the Digital Twin simulations
- The minigames can be tested individually before being connected together into a cohesive experience. By developing this modularly, it will allow for flexibility and can easily pivot to add more as time and resources allow
- Cover concepts such as what to pack before an evacuation, decisions to make leading up to evacuating, and navigating to your exit point

Initial personas were designed to explore a range of possible circumstances:

