

# Amphibious housing site selection criteria for use in flood-prone areas: a user's guide

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## **Abstract**

Amphibious architecture/housing is a promising new tool in the climate change adaptation and flood risk reduction toolboxes. However, like all forms of housing, amphibious housing performs better in some sites than others, and some sites actually present conditions that may be too extreme for the consideration of an amphibious housing solution to flood risk reduction. As but one example of this, high velocity riverine environments, which typically show even more rapid water flow during flood stages, may present engineering and architectural challenges that may not be possible to overcome using an amphibious housing approach. Conversely, sheltered deltaic floodplains which are not subject to hurricane/typhoon conditions may feature very low velocity flood water movement, and thus amphibious housing may be an appropriate component of flood risk reduction. This presentation will outline some of the key site selection criteria (e.g. water movement, wind speeds, relative exposure to storm surge, temperature regimes, future climate change, etc.) that should be considered before deciding on an amphibious housing approach to flood risk reduction.

*Keywords:* Amphibious housing; flood risk reduction; climate change adaptation; site selection criteria; water movement; wind speeds

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