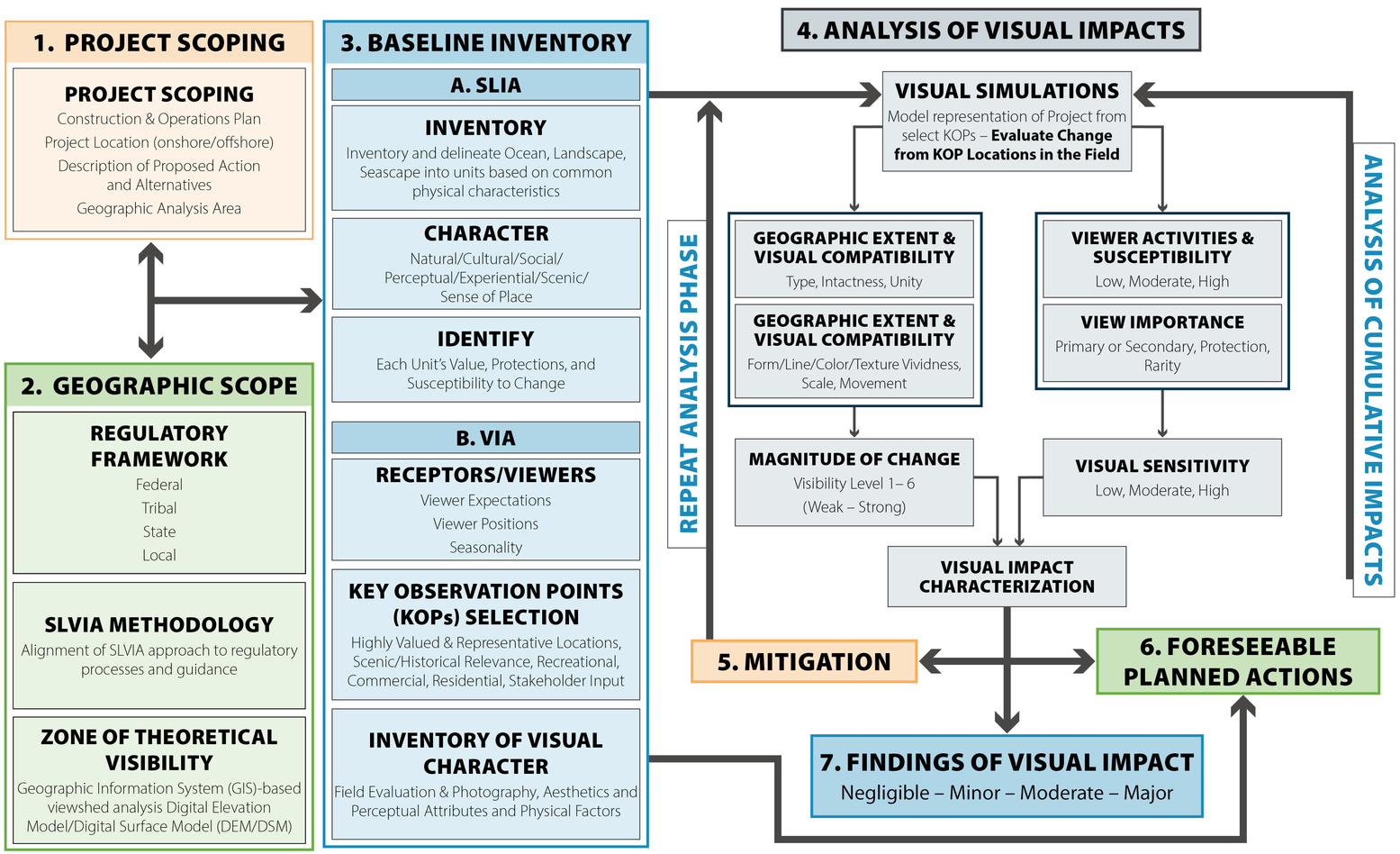
Bureau of Ocean Energy Management | Department of the Interior

Seascape, Landscape, and Visual Impact Assessment (SLVIA) Methodology

The SLVIA has two parts: seascape and landscape impact assessment (SLIA) and visual impact assessment (VIA). SLIA analyzes and evaluates impacts on both the physical elements and features that make up a landscape or seascape and the aesthetic, perceptual, and experiential aspects of the landscape or seascape that make it distinctive. VIA analyzes and evaluates the impacts on people of adding the proposed development to views from selected viewpoints.



What We Measure to Determine Impact

- A theoretical limit of Project visibility is determined through GIS evaluation to establish the visual geographic analysis area.
- Scenic resources and KOPs within the study area are identified.
- A GIS-based viewshed analysis is used to assess potential visibility using surface models that account for topography, vegetation, buildings, and earth curvature.
- Wind turbines are determined to be visible if the model indicates that the line of sight is unobstructed.
- Model results are verified through field investigation and photographic documentation of existing conditions at KOPs.
- Visual simulations are developed to illustrate the appearance of the proposed turbine array from KOPs.
- Wind farm distance, earth curvature visibility, filed of view, contrast, scale, and prominence of the proposed turbine array are assessed from each KOP (Key Observation Points).
- Impacts on scenic resources' seascape, open ocean, and landscape character units are assessed.
- Impacts on viewer experience from each KOP are assessed.
- Visual impacts are assessed for the action alternatives alone and in combination with other planned offshore wind projects that would be visible from KOPs.

For additional information, please visit *www.boem.gov/Renewable-Energy*