Sustainability

Tools

Climate Change Adaptation

- **Resilience and Disaster Recovery (RDR) Tool Suite | Public Version of the Resilience and Disaster Recovery Tool Suite** (2024) The RDR Tool Suite enables transportation agencies to assess transportation resilience return on investment (ROI) for specific transportation assets over a range of potential future conditions and hazard scenarios, which can then be used as a consideration in existing project prioritization processes. The tool suite utilizes established Robust Decision-Making concepts developed to build on current TDM analyses and address deeply uncertain future scenarios.
- **CMIP Climate Data Processing Tool Version 2.1** (2020) This tool processes downscaled climate projections, developed using the LOCA downscaling method, from the World Climate Research Programme's Coupled Model Intercomparison Project (CMIP) CMIP5 databases into relevant statistics for transportation planners and designers.
- View a webinar about the tool (2021).
- **Sensitivity Matrix** (2015):

  Tool (Excel file, 3.7 MB) - Spreadsheet tool that documents the sensitivity of roads, bridges, airports, ports, pipelines, and rail to 11 climate impacts.

  View a webinar about the tool.
- **Guide to Assessing Criticality in Transportation Adaptation Planning** (2015):

  HTML | PDF (949 KB) - Discusses common challenges associated with assessing criticality, options for defining criticality and identifying scope, and the process of applying criteria and ranking assets.

  View a webinar about criticality.
- **Vulnerability Assessment Scoring Tool** (2015):

  HTML User Guide | PDF (1.5 MB) | Tool (Excel file, 2 MB) - Spreadsheet tool that guides the user through conducting a quantitative, indicator-based vulnerability screen. Intended for agencies assessing how components of their transportation system may be vulnerable to climate stressors.

  View a webinar about the tool.
- **Best Practices for Conducting Indicator-based Vulnerability Assessments using the Vulnerability Assessment Scoring Tool (VAST) Virtual Workshop Summary** (2019) - The Federal Highway Administration (FHWA) hosted a Virtual Workshop on March 6, 2019 via Adobe Connect. The purpose of the Virtual Workshop was to facilitate sharing of insights and best practices for conducting indicator-based vulnerability assessments using VAST between State Departments of Transportation and Metropolitan Planning Organizations.

Archives

- **CMIP Climate Data Processing Tool** (2016/2018):
  HTML User Guide | *Archived*: Tool for CMIP5 Data Version 1.4 (Excel file, 60.9 MB) (October 2018)