



# Obtaining, Navigating, and Using the Watershed Data, Vista Projects, and the Vista Decision Support System

## Vista Software and Support

The Vista software that was used to facilitate most of the analyses for the assessments \*and\* a PDF version of the extensive Vista User Manual can be obtained for free from [www.natureserve.org/vista](http://www.natureserve.org/vista). All of the GIS data used and generated in the assessment can be used without Vista. However, using Vista will allow you to access many valuable formatted reports, update the assessments with new/local data, add new fish and wildlife or human asset elements, customize the model settings, and combine and summarize data in many ways. Note that Vista is an extension to Esri's ArcGIS 10.x (should open in Arc 10.3-6) so you will need that software *with the spatial analyst extension* from Esri to run Vista. You will also need a contemporary desktop/laptop computer with average to high hard drive space and processing speed to run these products.

## Additional Support and Guidance

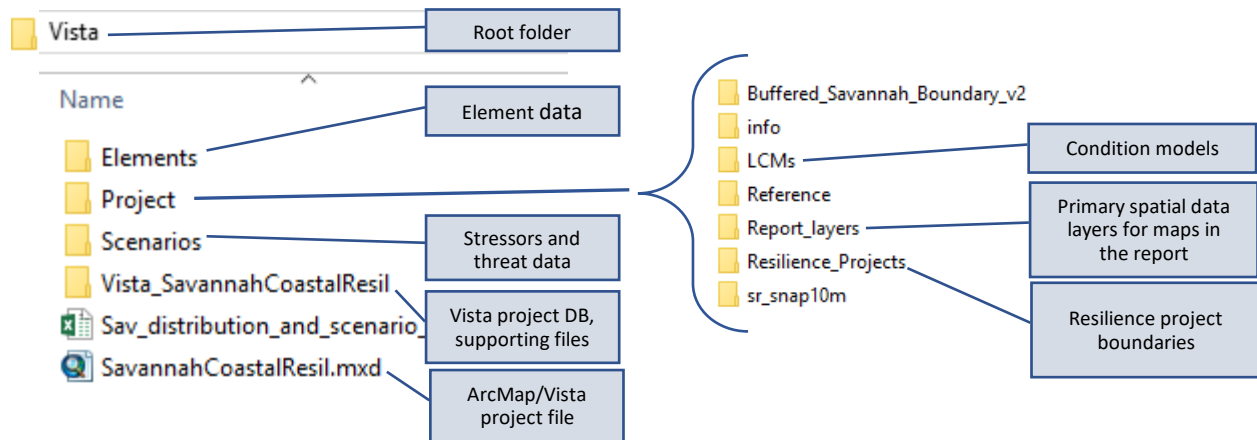
The following are general resources related to the Vista software and resources created especially for these watershed assessments and associated stakeholders:

- **Vista User Manual.** Vista has an extensive ***built-in***, context-specific user-manual that provides guidance for most functions. These resources are available through the primary Vista user interface elements summarized below.
- A self-guided **Vista Tutorial** and associated sample data provides a hands-on overview of Vista's primary functionality and is highly recommended for those planning on adapting the Vista projects produced for this effort.  
[https://tranxfer.natureserve.org/download/longterm/vista\\_public/SampleData.zip](https://tranxfer.natureserve.org/download/longterm/vista_public/SampleData.zip)
- The **Targeted Watershed Assessment Reports** represent the primary, detailed documentation of the context, methods, and results of the assessments including detailed information on assumptions and limitations of the spatial analyses at the core of the assessments. The Methods and Appendix sections provide details on how Vista was applied, and the settings used to model interactions between Fish & Wildlife elements, Human Community Assets, and their interactions with stressors and threats. These reports can be downloaded from the NFWF Targeted Watershed Assessment web page here:  
<https://www.nfwf.org/coastalresilience/Pages/targeted-watershed-assessments.aspx>
- A **recorded Webinar** introducing Vista and the projects created to facilitate these assessments can be accessed here: <https://vimeo.com/339225837/06ce83a6a2>. You will be asked to register to access the recording. This resource is strongly recommended for those wishing to better understand and/or build on the Vista projects created for this effort.
- **Custom Assistance.** For technical questions and/or to discuss additional support options for Vista and related planning services, please contact Dr. Patrick Crist at [p\\_crist@outlook.com](mailto:p_crist@outlook.com).

## Project Spatial Data Package and Vista ArcMap Project

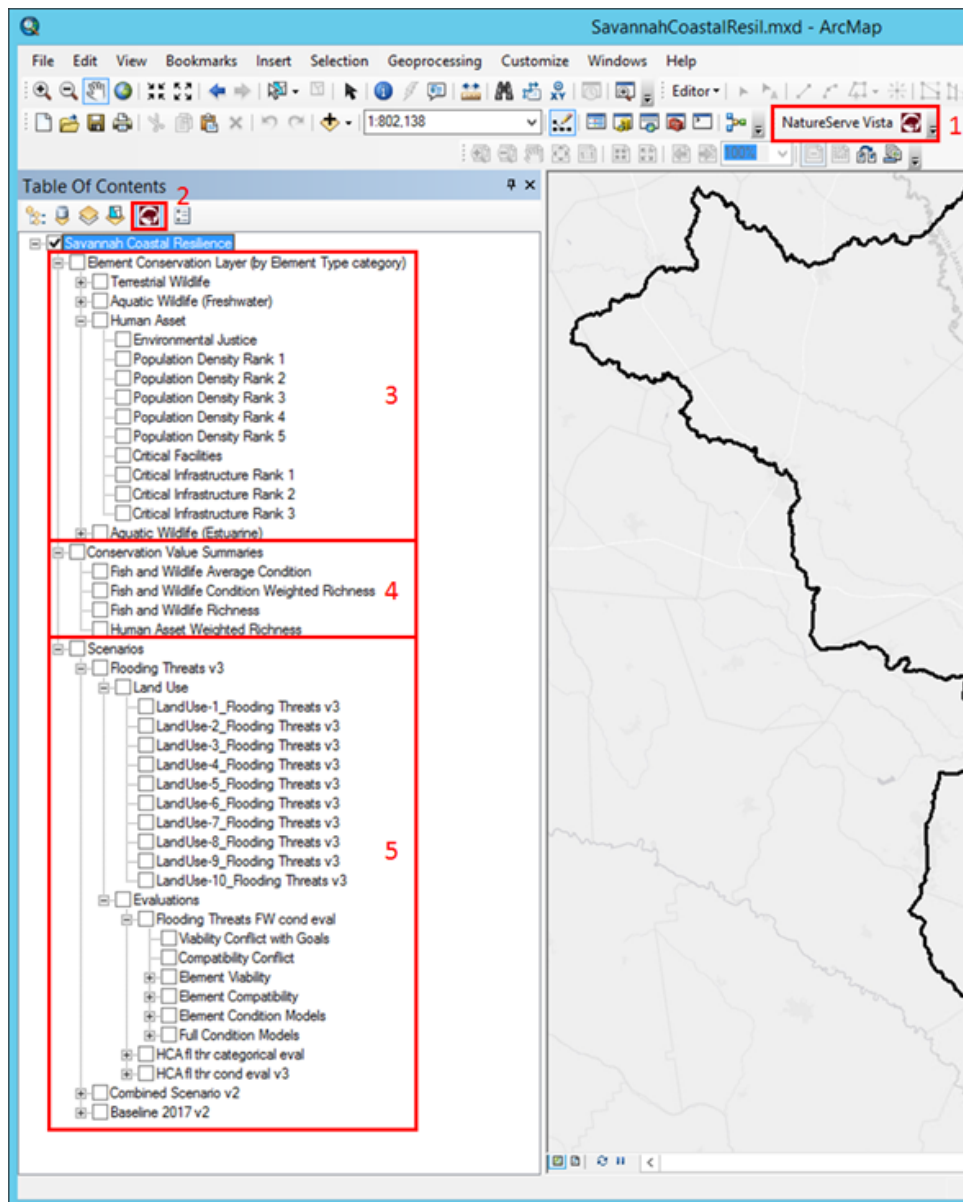
The spatial data used in these assessments (input & output data, maps, models) and the associated Vista projects (large (5-15 GB) .zip files ) can be downloaded for each individual watershed from the CREST portal at <https://resilientcoasts.org/#Download>. The .mxd (ArcMap project file) representing the Vista project and all associated data will open from wherever the package is unzipped.

The basic file structure and contents of these packages is:



## Watershed DSS Project Organization

The Vista projects provide organized access to all input spatial data, output spatial data, model parameters, and contextual data. Vista content is accessed via the Vista toolbar and the Vista Table of Contents tab. The figure below represents a basic guide to the main elements of a Vista project.



1. The NatureServe Vista toolbar contains the menus accessing all the tool's functionality (it should load automatically when you install Vista but if not, make sure the Vista extension is selected).
2. The NatureServe Vista Table of Contents tab is a convenient way to navigate the project, especially relating to outputs. Right clicking on most objects provides shortcuts to many functions such as generating reports.
3. The elements (which include the HCAs and the fish and wildlife elements) are found at the top of the tab and organized by element category.
  - See "Appendix 5. Fish and Wildlife Element Selection and Inventory of Elements" of the watershed reports for more details on element selection and data used to for their distributions.
  - See "Appendix 2. Condition and Vulnerability Technical Approach and Modeling Methods" of the watershed reports for more detail on condition modeling for the Baseline Scenario, which was used to represent Viability/Integrity of the Fish and Wildlife elements.
4. The value indices (Conservation Value Summaries) are found directly below the elements.
  - See the Methods section of the watershed reports for details on how the Conservation Value Summaries were used in the analyses.
5. The scenarios (and associated 'evaluations') follow the Conservation Value Summaries and are arranged hierarchically by scenario. The evaluations contain a large number of intermediate results which may be useful for planning purposes.
  - See "Appendix 2. Condition and Vulnerability Technical Approach and Modeling Methods" of the watershed reports for more detail on how the scenarios were built and methods for modeling condition.
6. Reports on each item can be accessed by right-clicking on the item.

## Suggestions for Customizing the Vista Projects

The following table illustrates some basic ways you can readily customize the Vista project for your watershed.

<b>Current Vista Content</b>	<b>New/updated Vista content and applications</b>
<b>Human Community Assets</b>	Replace regional/national data with local data
	Add additional HCA features
	Add planned future features (urban growth, planned infrastructure, etc.)
<b>Fish and Wildlife Elements</b>	Replace regional/national data with local data and modeled distributions (as available)
	Add additional F&W elements
<b>Scenarios</b>	Replace regional/national data with local data
	Include future urban growth in scenarios
	Include adaptation plans and projects
	Enhance flooding data with new model results/local data
	Add additional threats, e.g., wildfire, wind
<b>Planning/Resilience Hubs</b>	Add additional time steps, e.g., for additional sea level rise depths
	Develop new project ideas and plans based on the results
	Test current plans and revise them
	Develop new adaptation plans and for different timeframes (near, mid, long-term)