All Species Status Assessments (SSA) used to inform Endangered Species Act decisions by the U.S. Fish and Wildlife Service (Service) employ some form of models (Smith *et al*. 2018, p. 6). Indeed, underlying every assessment is a model; the model can be explicit or implicit. The SSA Framework provides a model structure to evaluate the ecological system for a species and uses results to forecast the future status of the species in terms of viability. These models may be simple or complex. Due to a multitude of constraints, most of our SSA analyses use relatively simple categorical risk models, although they are still quantitative. However, there are circumstances where more sophisticated models are appropriate.

The decision on what type of model to use is an important one that must be made thoughtfully very early in the SSA process. This decision can use a structured process to plan an approach that maximizes the opportunity for success (Addison *et al*. 2013, p. 494). All models must be constructed with the ultimate goal of providing a tool to make a better decision (Starfield 1997, p. 262). Our intent is to use the most rigorous model, while being cognizant of the limitation of resources. In this respect, we strive to build the simplest model that will meet the specific needs of the SSA within the particular decision context and science standards (Smith *et al.* 2018, p. 6).

Listed below are a few elements to consider in planning for modeling in SSAs. Additional considerations can be found by reviewing the literature referenced below.

Scope:	**1.** Outline the specific questions we need addressed to complete the SSA and provide the scientific information to inform the determination. **2.** Anticipate the format of the model outputs and how they will fit within the SSA. And be cognizant of potential assumptions. **3.** Consider simpler modeling alternatives that provide similarly rigorous outputs but use fewer resources and are easier to communicate.
Data:	**4.** Confirm that existing data are available for use in the model and/or that we can use expert elicitation to generate model parameters.
Collaboration:	**5.** Ensure we have (or can get) the necessary internal and external trust-based relationships to gain buy-in for the model. **6.** Elevated interest from outside parties may warrant a more rigorous model, particularly if sufficient data are available.
Resources:	**7.** Engage the appropriate personnel with the knowledge and experience to effectively design, apply, test, and communicate in a collaborative context (Pe'er *et al.* 2013, pp. 650–653) the model we are envisioning. **8.** Plan for the necessary time and funds to complete the tasks we anticipate for the modeling effort.

Literature Referenced

Addison, P.F.E. *et al*. 2013. Practical solutions for making models indispensable in conservation decision-making. Diversity and Distributions 19:490–502.

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Contact Nathan_Allan@fws.gov for questions about this document.