



## Species Planning Document Framework

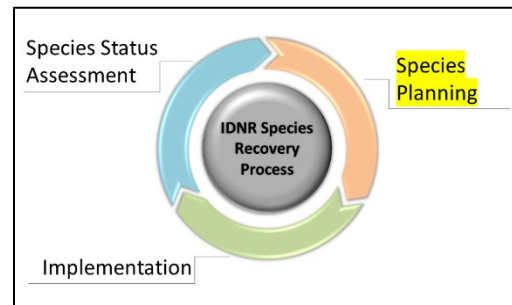
### IDNR Natural Heritage Species Recovery Process

The Species Planning Document template can be found on the [Recovery Guidance](#) website



#### Context

Species recovery can be conceptualized as a three-phase recursive process with the goal of maintaining or enhancing status of the species in Illinois. The second phase of species recovery includes identification and prioritization of conservation objectives and actions. A planning document communicates the vision for managing the focal species towards a desired conservation outcome. The Recovery Leadership Team uses the Planning Document to prioritize IDNR resources for conservation actions.



#### Species Planning Document Goal

The Species Planning Document identifies conservation objectives and inventories and prioritizes potential actions to achieve the objectives.

#### Components of Species Planning Document

The guidance provided below offers a framework for compiling conservation objectives, actions to achieve those objectives, and expected outcomes of successfully implemented actions. It is expected that resolution of information used to populate each component will vary among planning documents, but each component shall be addressed. The Species Planning Document template (found on the [Recovery Guidance](#) website) should be used as a guide while creating the planning document.

Upon completion of the Species Planning Document, email the document (in MS Word format) to the Endangered Species Program. The Endangered Species Program will facilitate the review process and may request changes to ensure consistency. For the protection of the species, all specific location information will be redacted prior to posting on the Recovery website.

#### **1. Need for Conservation**

Identifying causes of a species' status aids development of conservation opportunities. Describing stressors, threats, and information needs for the species provides context for conservation objectives and actions. Stressors, threats, and information needs will be addressed by conservation objectives and actions. Required information for this section includes:

- A. Brief synthesis of the species' status. Broad assessments of the species' status and status trends as described in the SSA are **briefly** provided. Trends (or contemporary status, at a minimum) for each of the three SSA components (distribution, abundance, population viability) should be addressed, with spatial and temporal scale identified. **This section should provide the Recovery Leadership Team with an expectation of future status, with an estimated timeline, for the species should conservation objectives not be achieved.**
- B. Identify the stressors and threats currently acting upon the species. Include notes indicating the frequency and intensity of each stressor or threat and which life history stages or ecological

characteristics are affected. The spatiotemporal scale and the relationships between stressors/threats and species' status or status trends are identified. Be sure to include the consequences of not addressing each stressor and threat (i.e., expected results of no action). For additional information, visit the Conservation Standards [Threats and Actions Classification](#).

- i. **Stressors.** Stressors are factors that constrain productivity, development, or reproductive success (e.g., predation, disease, lack of mates, salinization, unsuitable temperature or moisture conditions)
    - Stressor example – *Low population density*. Element Occurrences record just one or two individuals per record. At this density it may be unlikely individuals will have the opportunity to reproduce. Not addressing the stressor would likely decrease viability of populations in Illinois.
  - ii. **Threats.** Threats are processes or events that cause harm, typically by producing stressors (e.g., harvest, invasive species, land development, climate change, habitat loss or fragmentation)
    - Threat example – *Invasive species competition*. Invasive species can alter the population's habitat and outcompete the species. Not addressing the threat will likely reduce distribution, abundance, and population viability of the species.
- C. **Information needs.** A list of surveying and monitoring needs or data inadequacies that will hinder the management of the species. These may be knowledge gaps in species life history or ecology, assessment limitations caused by poor data resolution, or unknown viability of potential conservation actions. Actions should not be identified in this section; actions will be listed in section 3.
- Information need example – *Surveying inadequacies throughout the state*. Very little surveying has been performed for additional populations outside of the known core area of the species.

## 2. Conservation Objectives

An objective is a measurable outcome to help accomplish a desired goal. Specific, measurable, and relevant objectives facilitate focused conservation actions and support goals of maintaining or enhancing a species' status. Crafting objectives with these characteristics not only identifies desired outcomes but also aids development of monitoring protocols and status assessments that evaluate efficacy of conservation actions. Relevant information for this section includes:

- A. **Conservation objectives.** A description of desired conservation outcomes written as objectives (i.e., measurable). Objectives shall be ordered according to priority (highest priority first). Objectives should not include listing status changes.
  - **Conservation objective examples:**
    1. Maintain three or more highly viable populations (e.g., EOs with an A or B rank) in each of the natural divisions in which the species occurred historically.
    2. Alleviate competition with other species within each known population.
    3. Identify management techniques that effectively maintain or improve upon the status of the species.

## 3. Conservation Actions

A conservation action is an approach that targets a conservation objective by addressing a stressor, threat, or information need. Stewardship, protection, policy/rule, research, monitoring and assessment, and education and outreach actions are described to provide a catalogue of opportunities that support conservation objectives. Not every action need be immediately achievable. This section will assist the

Recovery Leadership Team in prioritizing resources for species recovery. For additional information, visit the Conservation Standards [Threats and Actions Classification](#). Relevant information for this section includes:

- A. Conservation actions. Each action is described. Identify conservation actions for one or more of the defined conservation objectives. The manner in which stressors, threats, or information needs are addressed by actions should be included. Resource requirements and years to expected completion are estimated for each action (include funding, staff time, and/or contractual expenses that could be expected to complete the action). Actions shall be ordered according to priority (highest priority first).
  - Conservation action example:
    1. *Protect population “A” through Nature Preserve dedication or IDNR purchase.* Farming practices continue to encroach upon the species, particularly around population “A”. Land protection is recommended for population “A” to address the threat of land development and ensure the existence and viability of the species within this location (objective 1). Dedication in the Nature Preserves system (the preferred action) would require a minimum of 37.5 staff hours and could be completed within 3 years. Purchasing the property by IDNR would take 5 or more years, require 50+ staff hours and \$500,000-\$1,000,000 (depending on the land valuation).
- B. Synthesis table of conservation actions. Each action identified in 3(A), is synthesized into a table to aid evaluation of actions by the Recovery Leadership Team. Table columns include: Action, Objective Addressed, Purpose of Action (what associated stressor, threat, and/or information need is addressed), Estimated Resources Required (staff hours, dollars, and/or contractual), and Years to Complete.
  - Synthesis table example:

Action	Objective Addressed	Purpose of Action	Estimated Resources Required	Year to Complete
1. Protect population “A” through Nature Preserve dedication or IDNR purchase.	1	Threat: land development of known populations	NP: 37.5 staff hours OR IDNR purchase: 50+ staff hours and \$500,000-\$1,000,000	3-5
2. Perform controlled burns to remove invasive species within and around known populations	2	Threat: invasive species competition	Annually: 25 staff hours and \$5,000 in supplies/equipment OR \$15,000 contractual	3
3. Update administrative rules increasing the consequences for poaching listed plant species or seeds.	1	Threat: poaching	15 staff hours	1
4. Research how the species responds to different management techniques	3	Information need: management needs of the species	10 staff hours OR \$10,000 contractual	1
5. Monitor population viability before and after management	3, 1	Information need: management needs of the species	Annually: 25 staff hours OR \$15,000 contractual	4

#### **4. Citations**

Include any citations used in the document.

For help documents, examples, and the Species Planning Document template, please visit the [Recovery Guidance](#) website.