



Guide to Threatened and Endangered Species on Private Lands in Virginia

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Introduction

People own land for a variety of reasons, including privacy, scenery, wildlife habitat, and timber production. To attain their goals, owners often conduct management activities that temporarily alter existing habitat. Before implementing any habitat-altering activity, landowners have a responsibility to assess their property for the presence of threatened and endangered species, as well as significant natural communities. Under the federal Endangered Species Act (ESA) and Virginia's endangered species regulations, landowners are required to minimize negative effects on threatened and endangered species.

Although there may be situations where a landowner's original plans would have to be modified to comply with federal and state requirements, only a small percentage of all land management activities in Virginia are ever affected. It is neither the intent nor the desire of the agencies that regulate threatened and endangered species to unjustifiably impede the activities of private landowners. Biologists work with landowners to find mutually acceptable ways to allow work to proceed and still afford species the level of protection they need. The presence of threatened and endangered species presents landowners with a great opportunity to help conserve biodiversity.

The main goals of this publication are to increase awareness and understanding of federal law and state regulations pertaining to threatened and endangered species and to explain how to determine if these species are present. To this end, we present flowcharts to help natural resource professionals and landowners navigate efficiently through the process to assure compliance with these regulations, avoid inadvertent take of threatened and endangered

species, protect biodiversity, and achieve desired management goals.

Note: Contact information for agencies mentioned in the text is provided in Appendix I. A complete definition for each bold-faced word in the text is provided in Appendix II.

Relevant Legal Statutes Relating to Threatened and Endangered Species

Federal Law

The federal ESA was created in 1973 to conserve threatened and endangered plants, wildlife, fish, and the ecosystems on which they depend. Specifically, the ESA:

- Authorizes the determination and listing of species as endangered or threatened.
- Prohibits unauthorized take, possession, sale, and transport of endangered species.
- Provides authority to acquire land for the conservation of listed species, using land and water conservation funds.
- Authorizes establishment of cooperative agreements and grants-in-aid to states that establish and maintain active and adequate programs for threatened and endangered wildlife and plants.
- Authorizes the assessment of civil and criminal penalties for violating the ESA or its regulations.
- Authorizes the payment of a reward to anyone who furnishes information that leads to an arrest and conviction for a violation of the ESA or any regulation issued thereunder.

Responsibility for the administration and enforcement of the ESA falls primarily to the U.S. Fish and Wildlife Service (USFWS). In coastal environments, the USFWS must coordinate with the National Marine Fisheries Service, which has jurisdictional responsibility in cases involving species protected under the Marine Mammals Act. For most landowners, however, interactions under the ESA will involve only the USFWS. Biologists from the USFWS are responsible for identifying species as candidates for listing, maintaining the federal list of threatened and endangered species, and developing recovery plans to increase population numbers for all listed species.

Other components of the ESA include the Endangered Species Protection Program (ESPP) and Incidental Take permits. The ESPP, enforced by the U.S. Environmental Protection Agency (EPA), stipulates that all pesticide product labels contain reference to published Endangered Species Protection Bulletins whenever a pesticide has the potential to negatively impact threatened and endangered species.

Incidental Take permits protect landowners (including federal, state, tribal, and local governments and private individuals) from prosecution under the ESA for incidental takings of listed species during otherwise lawful activities. The idea behind this provision is that, under certain circumstances, a small number of listed individuals or a portion of the habitat that supports them may be taken incidentally. However, use of this provision is typically restricted only to those cases where the merits or benefits of the project are high and an approved Habitat Conservation Plan (HCP) that affords sufficient protection to remaining individuals of the listed species has been developed and implemented.

In addition to assurances a landowner may receive from developing and implementing an approved HCP, several other voluntary options are available. These include Safe Harbor Agreements, Candidate Conservation Agreements, and Candidate Conservation Agreements with Assurances (table 1).

Virginia Law

Under provisions of the federal ESA, all 50 states can request a cooperative agreement that allows them to create their own endangered species

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protection policies. These agreements are reviewed annually. Virginia has such an agreement and adopted regulations that:

- Prohibit the taking, transportation, processing, sale, or offer for sale within the commonwealth of any fish or wildlife listed as a federal threatened and endangered species, except as permitted by the Department of Wildlife Resources (VDWR) Board for zoological, educational, scientific, or captive propagation for preservation purposes.
- Authorize the state to adopt the federal list of threatened and endangered species, to declare by regulation that species not listed by the federal government are endangered or threatened in Virginia, and to prohibit by regulation the taking, transportation, processing, sale, or offer for sale of those species.

A cooperative agreement with the USFWS, signed in 1976, recognizes the VDWR as the designated state agency with regulatory and management authority over federally listed animals and provides for federal/state cooperation regarding the protection and management of those species and the habitats that support them.

Virginia's Endangered Plant and Insect Species Act authorizes the Virginia Department of Agriculture and Consumer Services (VDACS) to enforce regulations pertaining to federally listed plants and insects to ensure long-term recovery.

To receive an Incidental Take Permit for a federally listed species, landowners must develop an HCP that incorporates the needs of the species into the proposed activity and minimizes and mitigates negative effects on listed species. Approved HCPs come with a "no-surprise" assurance: The landowner will not be obligated to commit additional land, water, or finances to protection beyond what is stipulated in the approved HCP in the future. The USFWS will honor the no-surprise assurance if the landowner implements the plan in good faith.

In Virginia, the DWR does not have an Incidental Take Permit Process for any state listed animal species other than little brown bats and tri-colored bats.

Table 1. US Fish and Wildlife Service voluntary landowner programs that assist landowners with implementing active forest management on their lands, while protecting threatened and endangered species.

Voluntary Landowner Programs	Ownership Type	Intent	Requirements	Benefits (derived only after plan approval)	For More Information:
Habitat Conservation Plan (HCP)	Non-federal	Accommodates economic development to the extent possible by authorizing the limited and unintentional take of listed species when it occurs incidental to otherwise lawful activities.	<ul style="list-style-type: none"> • Taking will be incidental. • Landowner will, to the maximum extent practicable, minimize and mitigate the impacts of the taking. • Landowner will ensure that adequate funding for the plan will be provided. • Taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. • Other measures, as required, will be met. 	<p>Landowners can move forward with their project having the assurance that incidental take will not be in violation of the ESA.</p> <p>Landowner will not be subject to additional restrictions beyond those stipulated in an approved HCP in the future.</p>	https://www.fws.gov/library/collections/habitat-conservation-plans
Safe Harbor Agreements (SHA)	Non-federal	Promote recovery of a listed species.	Development of habitat recovery plan for property on which a listed species currently exists. Must establish the baseline habitat needed by the species.	Minor incidental take not penalized as long as conditions of the SHA are fulfilled.	https://www.fws.gov/service/safe-harbor-agreements
Candidate Conservation Agreements (CCA)	Federal Non-federal	Support conservation of species likely to become listed.	Commitment to implement specific actions designed to remove or reduce threats to the target species and to protect existing populations and habitats. Must include metrics to measure success.	If target species is eventually listed, landowner is obligated to abide by all provisions of the ESA at the time of listing.	https://www.fws.gov/service/candidate-conservation-agreements
Candidate Conservation Agreements with Assurances (CCAA)	Non-federal	Support conservation of species likely to become listed.	Commitment to implement specific actions designed to remove or reduce threats to the target species and to protect existing populations and habitats.	Landowners will not be subject to additional restrictions if a target species is ultimately listed, if conservation activities designed to produce a net conservation benefit are implemented. Incidental take resulting from implementing the plan not subject to ESA.	https://www.fws.gov/service/candidate-conservation-agreements-assurances

In 1989, the Virginia Natural Areas Preserve Act established the Natural Heritage Program (NHP) through the Virginia Department of Conservation and Recreation (VDCR). Under a memorandum of agreement, the VDCR/NHP represents VDACS by providing comments regarding potential impacts of projects on state-listed threatened and endangered plant and insect species. Although the VDCR/NHP has no legal enforcement authority, it serves an advisory role. Other functions of the VDCR/NHP include performing statewide biological inventories and field surveys, maintaining an electronic database of species, identifying resources in need of conservation, and acquiring and managing Natural Area Preserves. The VDCR/NHP's database serves as the statewide clearinghouse for threatened and endangered species information and is shared among the agencies responsible for enforcement. However, it is not used for regulatory purposes. Landowners wanting a determination on a listed species need to use the VDWR database.

Virginia's list of designated threatened and endangered species is comprehensive, meaning that, in addition to species specifically designated by the state (i.e., state-listed), it also includes all species recognized and approved at the federal level. However, species are not added to Virginia's list until they are officially adopted by the Board of Agriculture and Consumer Services.

What's a Person Supposed to Do?

If you are contemplating starting a forest management project, such as a timber harvest, that could potentially alter existing habitat, you first need to determine whether threatened and endangered species exist within or immediately adjacent to the area affected by your proposed activities. Where threatened and endangered species do not exist, or where critical habitat necessary to support these species is not present, the intended project can proceed as planned. Where threatened and endangered species are known to exist or where critical habitat that may support them is present, you are required to avoid or mitigate potential negative effects from your proposed activities on these species and habitats.

So, how do you determine where threatened and endangered species exist? What agency or agencies

do you need to work with to make these assessments? In general, it is best to begin your determination of whether threatened and endangered species issues apply to your proposed activity by working with the appropriate state agencies in Virginia. Both the VDWR and VDCR/NHP maintain accessible databases where landowners can make preliminary determinations about the presence or likely occurrence of protected species in the vicinity of their proposed activities. Although the exact locations of known populations will not be revealed, these databases provide enough information to suggest where further investigation is necessary.

The following is a brief overview of the processes natural resource professionals or landowners should use to determine if threatened and endangered species are present.

Wildlife

There are two ways to begin the process of determining if you have threatened or endangered wildlife species on your property (figure 1). One option is to contact your regional VDWR biologist, who can help you make this determination (see list of contacts, Appendix I).

The other option is to use an online service. VDWR's Fish and Wildlife Information Service (<https://dwr.virginia.gov/vafwis-subscription/>) allows you to create a customized list of protected species by city, county, quadrangle, or watershed (a free subscription is required). With a free subscription, you can run an initial project assessment (IPA) report for a specific location. This report focuses on listed and other imperiled species and resources designated by VDWR. Information about each species can also be accessed by selecting "Species Information," then "By Name", or by clicking on the Biota of Virginia number for the species of interest. The Database Search function will generate a list of species using taxonomic groups (i.e., fish, mammal, etc.), geographic location, or other selections to create a list. Additionally, the USFWS manages the Information for Planning and Consultation (IPaC) online tool that creates a list of federally threatened and endangered species that may be present on your land based on a map you create or upload (<https://ipac.ecosphere.fws.gov/>).

If neither of these reviews suggests threatened or endangered species or suitable habitat exists in the vicinity of your intended work, your project is not affected by T & E limitations. However, there still may be other regulatory constraints that would need approval before your project can proceed (e.g., local ordinances, other permits, etc.). If, however, either review suggests any of these may exist in the vicinity of your intended work, you should work with the VDWR Environmental Services Section in Headquarters to make a more refined determination.

If it is determined that federally listed animal species or suitable critical habitat are present, or in the vicinity, the project will be subject to the federal review process (figure 2).

If it is determined that Virginia listed species or suitable habitat are present, or in the vicinity, you will enter negotiations with VDWR on how best to mitigate the impacts of your project on the species. If suitable accommodations are made to avoid impact on the listed species, your project may proceed, so long as all other applicable permits and approvals are in hand. If, however, you do not modify your plans, and listed species are negatively impacted, a formal taking process will be initiated by the authorities.

Plants and Insects

Similar options exist for determining the presence of threatened and endangered plants and insects (figure 3). You may begin the process by contacting a VDCR/NHP Project Review Coordinator directly, or you may visit the VDCR/NHP website (<https://www.dcr.virginia.gov/natural-heritage/>), which provides a list of protected plant and insect species by county.

If neither review suggests threatened or endangered species exist in the vicinity of your intended work, your project is not affected by T & E limitations. However, there still may be other regulatory constraints that would need approval before your project can proceed (e.g., local ordinances, other permits, etc.). If, however, either review suggests any of these may exist in the vicinity of your intended work, contact a VDCR/NHP Project Review Coordinator to request an environmental review (see Appendix I for contact information). This service is free for landowners; consultants and other service providers will be charged a fee.

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If it is determined that federally listed plant or insect species or suitable critical habitat are present, or in the vicinity, the project will be subject to the federal review process (figure 2).

If it is determined that Virginia listed plant or insect species or suitable critical habitat are present, or in the vicinity, you will enter negotiations with VDACS on how best to mitigate the impacts of your project on the species. If suitable accommodations are made to avoid impact on the listed species, your project is not affected by T & E limitations. However, there still may be other regulatory constraints that would need approval before your project can proceed (e.g., local ordinances, other permits, etc.). If, however, you do not modify your plans, and listed species are negatively impacted, a formal taking process will be initiated by the authorities, unless you are exempt. For private landowners, there is one important difference to note between threatened and endangered wildlife and insects and threatened and endangered plants. Landowners are exempt from threatened and endangered plant restrictions for activities on their own property unless such work is conducted using federal funds (e.g., if the project is being cost shared by a Natural Resources Conservation Service program).

While landowners are allowed to take threatened and endangered plants on their own property, most take pride in owning such unusual assets and instead are interested in managing and protecting them. Numerous federal cost-share programs are available to assist landowners wishing to do so.

Federal Review Process

If either of the reviews above indicates the presence of federally protected species at the site of your intended project, a federal review process must take place. If you have worked with personnel from the VDWR and/or the VDCR/NHP, they can help guide this process. If the state agencies determine that no federally listed species or critical habitats are present, federal review is not required. If the state agencies' review suggests that federally listed species or critical habitats are present, you need to contact the USFWS Gloucester Field Office (Appendix I). If that field office subsequently determines that federally listed species are not present, the federal review process ends. If they are

confirmed, a consultation and formal application process will take place.

Other Concerns

Nongovernmental organizations may choose to adhere to higher standards than are required by federal and state statutes to provide further protection to threatened and endangered species on lands they manage. Some may use ranking systems to identify species that currently are not listed as threatened and endangered, but still are of concern.

NatureServe, an international network of Natural Heritage Programs, assigns all plant and animal species and natural communities a conservation status rank based on their rarity and conservation status across their entire range (<https://www.natureserve.org/>). Significant natural communities include those natural community types that are rare in Virginia, as well as exemplary examples of more common types. Species ranked G1 (global rank 1/critically imperiled) or G2 (global rank 2/ imperiled) are most at risk. Forest certification systems, such as the Sustainable Forestry Initiative (SFI), American Tree Farm System, and the Forest Stewardship Council, protect all G1 and G2 species and natural communities, even if they are not listed and protected under the ESA. State rankings are similar (S1 and S2), but only indicate the status of the species within Virginia. SFI uses the terms Forests with Exceptional Conservation Value and Forests of Recognized Importance to describe sites that support G1 and G2 species and communities.

Although all landowners must be concerned about the presence of threatened and endangered species, if you have one or more state or globally ranked species or natural communities on your land, you should be particularly vigilant. Efforts to manage rare species and significant natural communities also help keep common species off regulated lists.

Examples of significant natural communities in Virginia, based on their global rankings, include:

High-elevation mountain communities

- Spruce and fir forests
- High-elevation greenstone barren outcrops

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Low-elevation mesic forests

- Eastern hemlock/hardwood forests
- Northern white-cedar slope forests

Maritime zone communities

- Live oak/bluejack oak dune woodlands
- Maritime mixed deciduous forests

Sandy woodlands of the Coastal Plain

- Longleaf pine/scrub oak sandhill woodlands

Non-alluvial wetlands of the mountains

- Southern Appalachian high-elevation shrub bog
- Central Appalachian mountain pond
- Shenandoah Valley sinkhole pond

For more information on aquatic communities, visit the EPA website at

<https://www.epa.gov/wetlands/wetlands-factsheet-series> and read “The Natural

Communities of Virginia” for complete descriptions of the other natural communities

(<https://www.dcr.virginia.gov/natural-heritage/natural-communities/>).

Concluding Remarks

The intent of this publication is to clarify the requirements of federal law and state regulations that govern protection of threatened and endangered species as they pertain to private landowners in Virginia. It also provides a clear course of action for natural resource professionals and landowners to take if they suspect threatened and endangered species are present on property they own or manage. Where protected species are not present, management activities can proceed as planned, keeping in mind that there may be other requirements that must be met, in addition to complying with endangered species laws. If you have any questions about the process, please contact the VDWR or VDCCR/NHP.

If you own land in a state other than Virginia, the particulars in dealing with state-listed threatened and endangered species are likely to be different. You are advised to contact that state’s wildlife protection agency, Natural Heritage Program, or natural resources management agency for regulatory guidelines and assistance.

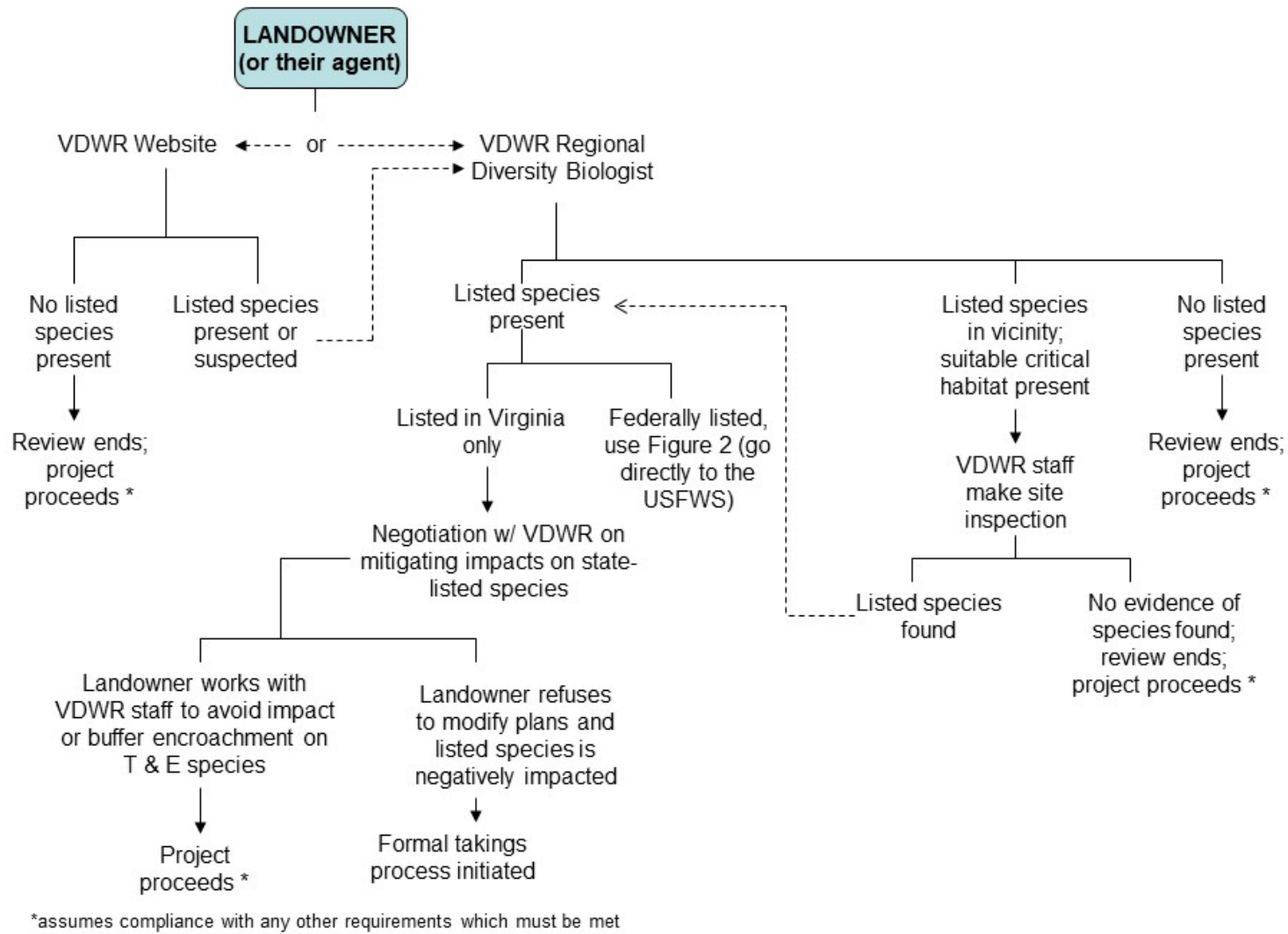
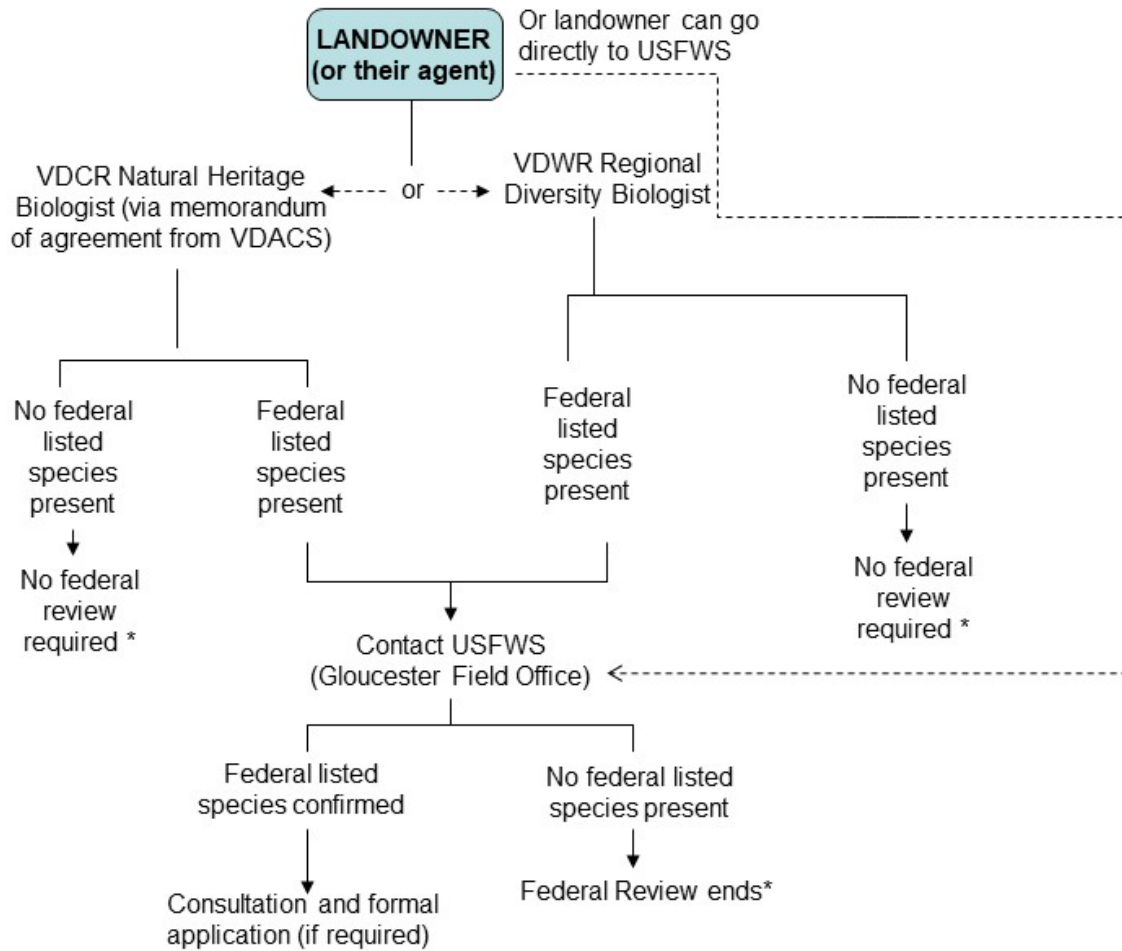
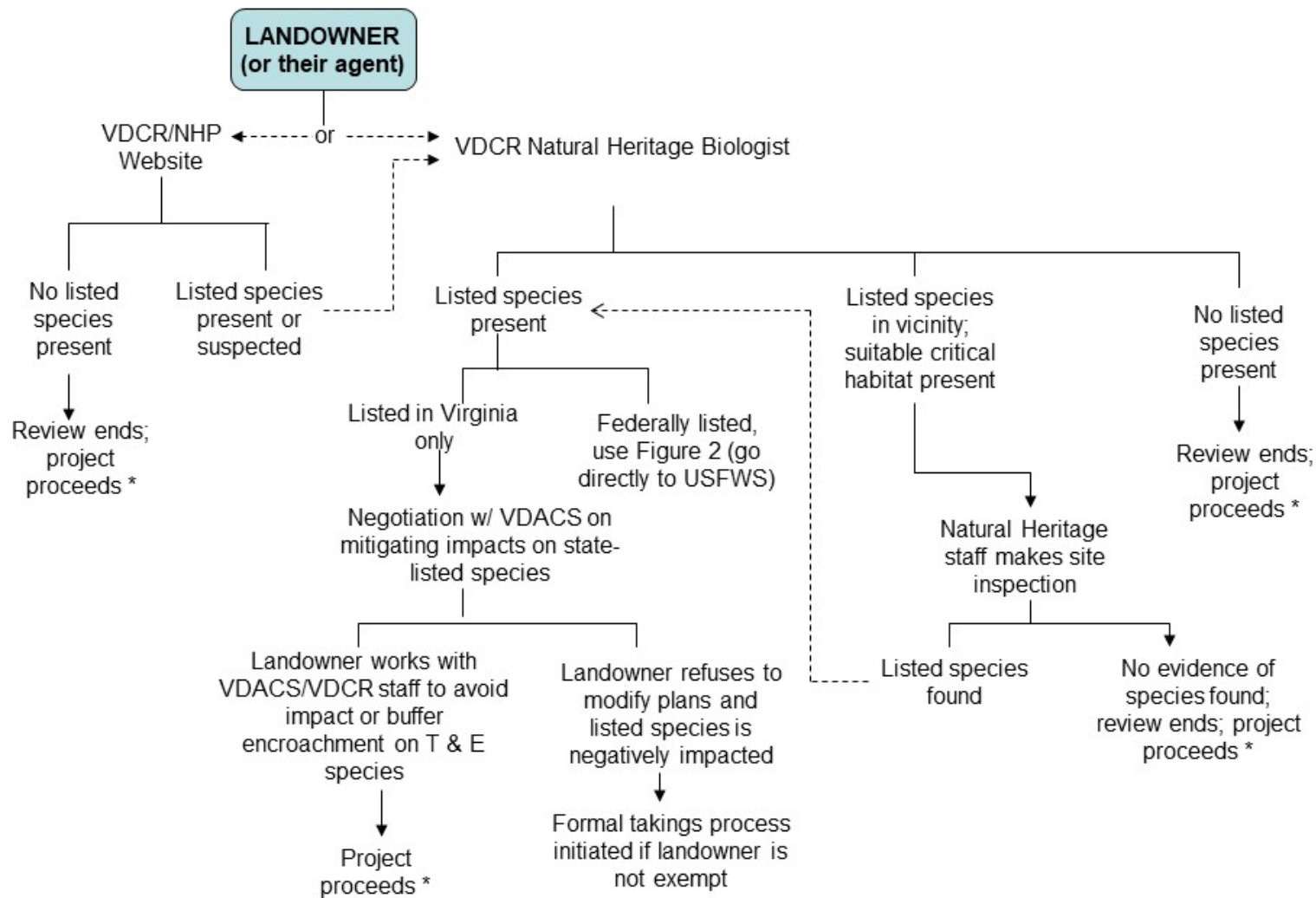


Figure 1. Flow Chart of Review Process for Wildlife Listed as Threatened and Endangered in Virginia.
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* Proposal review and negotiations at state level continue unaffected (see figures 1 and 3)

Figure 2. Flow Chart of Review Process for Federally Listed Threatened and Endangered Species.
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* assumes compliance with any other requirements which must be met

Figure 3. Flow Chart of Review Process for Plants and Insects Listed as Threatened and Endangered in Virginia.

Appendix I. Agency Contact Information

State

Virginia Department of Agriculture and Consumer Services (VDACS)

<https://www.vdacs.virginia.gov/>

Office of Plant and Pest Services
102 Governor Street
Richmond, VA 23219
(804) 786-3515

Virginia Department of Conservation and Recreation (VDCR)

<https://www.dcr.virginia.gov/natural-heritage/>

Natural Heritage Program
600 East Main Street
24th Floor
Richmond, VA 23219
804-786-7951

Virginia Department of Forestry (VDOF)

www.dof.virginia.gov

900 Natural Resources Drive Suite 800
Charlottesville, VA 22903
434-977-6555

Virginia Department of Wildlife Resources (VDWR)

<https://dwr.virginia.gov/>

Headquarters
7870 Villa Park Drive
Suite 400 (Villa Park 3)
Henrico, VA 23228
804-367-1000



Regional Offices

(See the map to the right to determine which office to contact.)

Region 1 (Pink)

Charles City Office
3801 John Tyler Memorial Highway
Charles City, VA 23030 (804) 829-6580

Region 2 (Blue)

Forest Office
1132 Thomas Jefferson Road Forest, VA 24551
(434) 525-7522

Region 3 (Green)

Marion Office
1796 Highway Sixteen Marion, VA 24354
(276) 783-4860

Region 4 (Brown)

Verona Office
517 Lee Hwy (physical)
P.O. Box 996 (mailing)
Verona, VA 24482
(540) 248-9360

Federal

United States Fish and Wildlife Service (USFWS)

<https://www.fws.gov/office/virginia-ecological-services>

Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061
804-693-6694

Southwestern Virginia Ecological Services Field Office

330 Cummings Street
Abingdon, VA 24210
(276) 623-1233



Appendix II. Glossary

- **Candidate** -- species for which sufficient data exist to warrant listing, but higher priorities preclude it from being listed.
- **Critical habitat** – (1) specific areas within the geographical range occupied by the species at the time it is listed on which are found those physical or biological features that are essential to the conservation of the species and may require special management considerations or protection; (2) specific areas outside the geographical area occupied by the species at the time it is listed, but which are deemed essential for conservation.
- **Endangered** -- a species in danger of **extinction** throughout all or most of its range.
- **Extinct** -- no longer occurring anywhere.
- **G1**-- critically imperiled throughout entire range.
- **G2** -- imperiled throughout entire global range.
- **Harm** -- an act that kills or injures wildlife. Such an act may include significant habitat modification or degradation where wildlife is killed or injured by significantly impacting essential behavioral patterns, including breeding, feeding, or sheltering.
- **Inadvertent take** -- the unintentional take of threatened or endangered species, usually arising from one not knowing of their presence in advance.
- **Incidental take** -- when otherwise legal activities result in the taking of a threatened or endangered species.
- **Listing** -- the act of placing a species on the list of endangered species so that it may be protected under the ESA.
- **Natural community** -- an assemblage of co-existing, interacting species, considered together with the physical environment, and associated ecological processes, that has undergone minimal human disturbance.
- **Rank** -- an assessment of risk based on distribution, rarity, relevant threat, existing levels of protection, and unmet protection and management needs; rankings beginning with a “G” are rankings that indicate the rarity and conservation status of a species throughout its entire range; rankings beginning with an “S” are state rankings that indicate the rarity and conservation status of a species within a particular state.

- **S1** -- critically imperiled in Virginia, with five or fewer occurrences or remaining individuals in the commonwealth or, because of some other factor(s), it is especially vulnerable to extirpation in Virginia.
- **S2** -- imperiled in Virginia, with six to 20 occurrences in the commonwealth or, because of some other factor(s), it is vulnerable to extirpation in Virginia.
- **Safe Harbor Agreement (SHA)** -- this agreement encourages landowners to voluntarily develop and implement a habitat recovery plan for property on which a currently listed species exists.
- **Take/taking** -- to harm, harass, pursue, hunt, shoot, wound, trap, kill, capture, or collect or attempt to engage in any such conduct.
- **Threatened** -- a species that is in danger of becoming endangered throughout all or most of its range in the foreseeable future.

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