

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
FORESTRY DIVISION**

PROPOSED AMENDMENT OF 19.21.2 NMAC, ENDANGERED PLANT SPECIES LIST AND COLLECTION PERMITS

Written Testimony of Daniela Roth

My name is Daniela Roth, and I am the coordinator of the Endangered Plant Program (Program) within the Forestry Division of the Energy, Minerals, and Natural Resources Department (EMNRD). I have been managing the Program since 2012. Responsibilities of the Program include researching the status of rare and endangered plants to ensure that no species is going extinct in New Mexico. I have a Bachelor of Science degree in Botany and Wildlife and a Master of Science degree in Plant Ecology. I have worked with rare and endangered plants since 1988 and specifically with rare and endangered plants of the Southwest since 1997. For additional details any my work experience and background with rare and endangered plans please see the attached resume.

EMNRD has statutory authority to administer and enforce the New Mexico endangered plant species statute NMSA 1978, Section 75-6-1 and its implementing rule, 19.21.2 NMAC. Pursuant to NMSA 1978, Section 75-6-1, EMNRD was required to establish a program for the conservation of listed endangered plant species which includes research, law enforcement, habitat maintenance, propagation, and transplantation. It is also required to maintain a list of endangered plant species in New Mexico. EMNRD last modified this list in 2020. Under the currently proposed amendment EMNRD proposes to:

- add American Hart's-tongue fern, *Asplenium scolopendrium var. americanum*, to the list of state endangered plant species;
- amend the definition of 'take' to include harm, kill, and destroy except for incidental removal, harm, killing, or destruction resulting from agricultural practices or tribal members use for religious purposes; establish an incidental take permitting process;
- amend the definition of state forester; add definitions of "agricultural practice", "applicant", "endangered plant", "harm", "permittee", "person", and "tribal member";
- amend the provisions regarding scientific study and propagation permits for state endangered plants;
- establish requirements for permit amendment; amend requirements for permit approval and revocation;
- establish a permit term; and,
- amend the provisions regarding penalties.

EMNRD does not expect significant adverse effects to small businesses from the proposed action. The Small Business Regulatory Advisory Commission was informed as required by law and advised that it had no concerns regarding the proposed amendments and additions to EMNRD rare and endangered plant rule. Most notably, the proposed rule provides an exemption for most agricultural practices. In the rare case that an endangered plant may pose an issue for other small business activities that might impact an

endangered plant, the proposed rule establishes an incidental take permit process which will allow the continuation of an otherwise lawful project with mitigation, if avoidance is not possible.

My testimony, resume, and associated documentation, including references and public notices, as well as comments received to date are located on file within the EMNRD, Forestry Division and are available online via the Forestry Division website. In addition, all relevant files are located on the shared EMNRD L drive in the appropriate folder (L: Resource Management Bureau/Botany Program/2021 Rule Change/Final). All this information will also be available through the Sunshine Portal.

ADDITION TO NEW MEXICO LIST OF ENDANGERED PLANT SPECIES:

American Hart's-tongue fern (*Asplenium scolopendrium var. americanum*): The American Hart's-tongue fern was discovered to grow at the entrance of a cave in the Malpais National Monument in New Mexico in 2018. The identification of the species was confirmed in 2020 by species experts (Wiley 2020). The fern is listed as threatened under the federal Endangered Species Act of 1973 (ESA) and the closest known occurrence is in Alabama (USFWS 2020; 54 CFR 29726). Otherwise, populations are known from New York, Georgia, Tennessee, Michigan, and Canada. The majority of the eastern populations have been protected and the primary threats to the species are now believed to be climate change and to some extent invasive species. In general, the species is found growing in deep shade on calcareous rocks in sinkholes, at cave entrances, and on cool, moist talus slopes. In New Mexico plants grow at the mouth of a cave at El Malpais National Monument, on basalt associated with ancient lava flows. Populations can contain thousands of individuals.

Although the species has been recommended for delisting, the number of individuals at the New Mexico population is 66. It is therefore extremely vulnerable to stochastic events as well as climate change. The species occurs in cool, moist microclimates and is therefore sensitive to moisture stress brought on by drought and high temperatures. The New Mexico population is located at the mouth of a cave at El Malpais National Monument, where caving is permitted. Even small disturbances may contribute to the decline of the species. Because the fern is a federally listed threatened species previously not known to occur in New Mexico, but it is now known to occur at one site, it must be included on the state endangered plant list as required by NMSA 1978, Section 75-6-1, which requires all federally listed plant species to also be included on the state list of endangered plants.

AMENDMENT OF TAKE DEFINITION:

In addition to the American Hart's-tongue fern, EMNRD proposes to amend the definition of take to include harm, kill, and destroy because the definition in the current rule does not reflect the intent or authorized scope of NMSA 1978, Section 75-6-1 to protect and conserve endangered plant species. The current rule only regulates the removal of endangered plants with the intent to possess, transport, export, sell, or offer for sale. The current rule does not regulate the harm, killing, or destruction of endangered plants from other activities or the intentional destruction of endangered plants. The proposed amendment is in response to a decline in New Mexico's endangered plant species over recent decades indicating that stronger efforts are needed to protect and conserve New Mexico's endangered

plant species (Bansbach et al. 2019; Ladyman, 2004; Roth 2013, 2015, 2017a & b, 2018, 2020a, b, c, d, e, f, g, h, 2021; Roth and Sivinski 2014; Roth and Sivinski 2018; Talkington 2019; Tonne 2002).

EMNRD recognizes the extinction crisis as a significant problem, locally and worldwide. Therefore, strengthening of the endangered plant rule is listed as a priority in the NM Rare Plant Conservation Strategy of the 2020 Forest Action Plan, the primary guidance document of the Forestry Division (Strategy 5.5A). Direct impacts and destruction of habitat combined with the impacts of climate change are the primary drivers in the documented decline of our endangered plant species. The decline of species can also be linked to the inadequacy of existing regulatory mechanism, which is contributing to inadequate management of endangered plants, including those that are federally listed (IAE 2020; Roth 2013, 2017b, 2020a, 2020d, 2020h, 2021). Examples include agency permitted destruction of state listed plants and conservation steps being limited to voluntary actions only (BLM 2014, 2017), non-adherence to National Environmental Policy Act committed conservation measures (Roth 2020d, 2021), lack of management directed towards endangered plants, and lack of oversight of ground disturbing activities, even in seemingly protected areas (Roth 2020h).

This is problematic because a majority of state listed plants are endemic to New Mexico or nearly so. Many occur in highly specialized habitats and occur over a highly restricted range. Even small stochastic events could be detrimental to their continued existence. Prolonged and persistent drought associated with climate change is also linked to current declines. The period between 2000-2018 was the second driest 19-year period in the American Southwest since 800 CE (Williams et al. 2020). Climate change impacts on rare and endemic species of the Southwest have been well documented (Enquist and Gori 2008; Treher et al. 2012; Goettsch et al. 2015) and is supported by current monitoring and status report results for rare and endangered plants from New Mexico. Drought, direct and indirect impacts, and poor management have been linked to observed declines over the past several decades. Although little can be done by land managers about immediate, localized impacts brought on by ongoing climate change and drought, management for the benefit of endangered plants is entirely possible. The extinction crisis can be significantly slowed for endangered plants in New Mexico through proper management, guided by a strong and meaningful law protecting our most vulnerable species from declines currently influenced by the lack of adequate regulatory mechanisms.

The new definition of take more closely tracks the statute but exempts certain agricultural and tribal religious practices. Certain agricultural practices are exempt because impacts from these practices on endangered plants are expected to be negligible, because agricultural lands are largely lands disturbed for an extended period of time and therefore are unlikely to be providing habitat for endangered plants. Livestock grazing is exempt because 'take' is difficult to establish and therefore not feasible for grazing practices. With respect to tribal cultural practices, while none of the currently listed endangered plants are used for religious practices by Native American tribes, to the best of our knowledge, we felt it was prudent to provide an exemption that is consistent with other endangered species protection laws such as the Bald and Golden Eagle Protection Act. Given the lack of known use, the impact of the proposed exemption would likely be negligible.

NEW DEFINITIONS:

EMNRD proposed to add definitions for “agricultural practice”, “applicant”, “endangered plant”, “harm”, “permittee”, “person”, and “tribal member”. These definitions are in parallel to our changes to the definition of take to avoid confusion and uncertainties about what exactly is exempt, ensure a uniform understanding all aspects of the proposed new definition of ‘take’, and clarifications on who the responsible party may be for actions defined by the proposed rule.

PROTECTION:

For clarification purposes EMNRD proposes to establish a new section, 19.21.2.10 NMAC Protection, and move the existing prohibition on take from the current section 19.21.2.15 NMAC Protection and Penalties to 19.21.2.10 NMAC Protection.

INCIDENTAL TAKE PERMIT:

To facilitate implementation EMNRD proposes to establish an incidental take permitting process in recognition of the fact that it is not always possible to avoid take of endangered plant species in connection with otherwise lawful actions. EMNRD felt such a process would help facilitate the ultimate goal of encouraging avoidance of impacts to the highest extent possible. Incidental take permits may be issued to allow a permittee to take endangered plants as long as the taking is incidental to and not the purpose of carrying out an otherwise lawful activity, subject to the conditions and requirements explained below.

The State Forester may issue an incidental take permit only if the applicant submits a completed application that contains the following:

- (1)** the impact on the species that will likely result from the taking including the number of endangered plants to be taken;
- (2)** information and analysis that establishes that such taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild including range wide and local species status, number of endangered plants in the activity area, number of endangered plants in the activity area taken, number of endangered plants in the activity area avoided, direct and indirect effects on the species and population resulting from the activity, disturbance frequency and intensity, cumulative effects resulting from the activity and interrelated effects affecting the species’ survival, and any supporting documentation;
- (3)** the best management practices and mitigation activities the applicant will use to avoid, minimize, and mitigate the impacts to the species from such a taking during the implementation of the proposed activity (*e.g.*, fencing off areas with endangered plants during construction period, saving topsoil layer and returning to site after construction, dust mitigation, seed collection, adjusting or reducing project footprint, biological monitoring on site during construction); and

- (4)** signed commitment that applicant will implement the best management practices and mitigation activities and submit a written report upon completion of the practices and activities.

These requirements were developed to ensure EMNRD had the information necessary to support the evaluation of need for an incidental take permit and to ensure that the proposed 'take' will not jeopardize the continued existence of the species. In addition, the requirements call for a mitigation plan and subsequent reporting on completed mitigation activities, to ensure that impacts of any authorized incidental take are minimized to the highest extent possible and that proposed mitigation activities are implemented by applicants.

An incidental take permit application must also include

- (1)** the applicant's name, address, phone number, email address and, if applicable, name and title of the applicant's authorized representative;
- (2)** the location of the proposed activity with a map, location coordinates (if available), and size (acreage) of proposed activity;
- (3)** description of the proposed activity;
- (4)** property ownership; and
- (5)** a signed certification by the applicant that states that the applicant assumes complete responsibility for any resulting impacts on endangered plants or the occupied habitat of such plants caused by the activity.

These requirements were needed to identify the responsible party and provide a thorough understanding of the property ownership, project location, project size, and proposed activity. This information will aid in the evaluation of project impacts and provide for accountability.

Recognizing there is overlap between the state and federal endangered plant lists, an incidental take permit application for an endangered plant that is also listed under federal law, must be accompanied by United States Department of the Interior, Fish and Wildlife Service (USFWS) consultation response and, if required by USFWS, a biological opinion. This provision is needed to ensure coordination between the two regulatory agencies, and their respective regulatory programs. Project review and consultation by the USFWS will help with the evaluation of the need for an incidental take permit and provide additional third-party information on the species' status.

The State Forester may authorize or require transplantation of endangered plants as a condition of an incidental take permit if the applicant demonstrates the need for transplantation or the State Forester otherwise determines it is necessary to mitigate the impacts of any proposed take. Where transplantation is proposed, in addition to the information required by Subsection A of 19.21.2.11 NMAC, the applicant shall:

- (1)** explain the need for transplantation;
- (2)** identify the number of plants to be transplanted;
- (3)** explain the transplantation method/protocol to be employed;

- (4) identify the site to which the plants will be taken for transplantation and describe the long-term protections provided at the site;
- (5) identify the timeline for the proposed transplantation;
- (6) describe the monitoring plan for transplantation; and
- (7) include the name and qualifications of the person carrying out the transplantation.

Transplantation may be necessary when plants would otherwise be destroyed, as a salvage operation. Transplant success is often uncertain and therefore transplant operations are considered a 'take'. If transplantation becomes necessary, the operation needs to be closely monitored for success to allow the Forestry Division to make informed decisions on issuing permits for this purpose on a species-specific response to such relocation efforts.

The State Forester's issuance of an incidental permit is not authorization to conduct the proposed activity; the incidental take permit only authorizes the incidental take. The underlying activity driving the need for the incidental take permit must be authorized as required by applicable law. If the permittee does not own the land where the activity will occur, the permittee shall also possess or obtain the landowner's authorization to conduct activities or use associated within any activities required by an incidental take process. A permittee shall also comply with other applicable federal, state, or local laws; and possess or obtain required permits, licenses, or other authorizations other entities require.

This provision is proposed so permittees are aware that an incidental take permit does not authorize the underlying activity, only the incidental take of an endangered plant associated with that otherwise lawful activity.

The proposed amendments do not require a person conducting an activity to survey to determine the existence of endangered plant in a proposed project area. However, this does not relieve the applicant to conduct surveys that may otherwise be required by federal, other state, or local law.

The proposed rule exempts emergency responses from the requirement to obtain an incidental take permit. Under the proposed rule, emergency responses include: law enforcement or emergency responses or other federal, state, or local agency civil actions, whether or not undertaken by or in coordination with the Forestry Division, that are necessary to prevent or respond to immediate threats to public health, safety, or environment, including firefighting and flood management or controlling, containing, and capturing releases of hazardous or harmful materials. EMNRD determined that this exemption is necessary ensure timely response to emergencies during natural and man-made disasters, to protect the public and the environment. Minimization and mitigation measures will be applied during and after the emergency under the supervision of the Forestry Division's Endangered Plant Program to the extent feasible/practicable.

PERMITS FOR SCIENTIFIC STUDY AND PROPAGATION:

EMNRD proposes to amend the current sections governing permits for scientific study and propagation, 19.21.2.10 NMAC Permits and 19.21.2.11 Scientific Investigations (renamed and renumbered as

19.21.2.12 NMAC Permits for Scientific Study or Propagation and 19.21.2.13 NMAC General Provisions for Scientific Study or Propagation). EMNRD proposes to amend these sections to clarify the difference between the proposed incidental take permits and the existing scientific study or propagation permits. The amendments also explain the process for maintaining such permits.

PERMIT TERM, APPROVAL, AMENDMENT, AND REVOCATION:

EMNRD proposes to add sections for permit term, approval, and amendment and revise the section regarding permit revocation. The new sections address permit term, approval, and amendment and amend the section for revoking a permit so that it is clear how long a permit is valid. They also clarify processes and requirements for permit approval, amendment, and revocation.

PENALTIES:

EMNRD proposes to amend the current section 19.21.2.15 NMAC Protection and Penalties to only include penalties and renumber and rename it 19.21.2.19 NMAC Penalties. In addition, EMNRD proposes to amend the language regarding penalties to:

- clarify that “each individual endangered plant taken without a valid permit issued by the state forester is a violation of 19.21.2.10 NMAC; and
- that each individual incidence or occurrence is a violation of other provisions in 19.21.2 NMAC (e.g., failing to obtain a required permit, providing false information on a permit application, failing to comply with a permit condition).”

TRANSITION:

EMNRD proposes to include a transition provision that provides the prohibition on removing, harming, killing, or destroying endangered plants without a permit issued by the state forester will not apply to ground-disturbing activities for which a person has received a permit or similar authorization from a federal, state, or local government agency prior to the effective date of the proposed amendments and ground disturbance begins within 180 days after the effective date. This transition provision will help facilitate rule implementation by allowing those projects with existing permits to proceed with already permitted activities without needing to obtain an incidental take permit, even if their permitted activities would result in incidental take for a short period of time. It also enables project proponents in the design phase to plan for rule implementation as they work through project design.



Daniela Roth

11-10-21

Date