United States Department of the Interior

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In Reply Refer To:
FWS/ILIAFO
Consultation Code:

March 10, 2025

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This constitutes an amendment to the U.S. Fish and Wildlife Service's (Service) 2006 programmatic biological opinion (PBO) for the Shawnee National Forest (SNF) 2006 Forest Plan (Plan) (USFS 2006). This amendment addresses the potential adverse effects of implementation of the Plan and other U.S. Forest Service (USFS) Decisions on the decurrent false aster (*Boltonia decurrens*) in accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended. The USFS request for reinitiation of formal consultation was received on December 16, 2025, along with a supplemental biological assessment (BA).

The purpose of this amendment is to account for potential effects to the decurrent false aster that were not anticipated or accounted for in the PBO. This amendment is based on information provided in the BA (USFS 2024); information provided in the decurrent false aster Recovery Plan (Service 1990), the listing document (USFWS 1988), the most recent 5-Year Review (USFWS 2020), field investigations, and other sources of information. A complete administrative record of this consultation is on file at our office.

CONSULTATION HISTORY

- November 3, 2022 – Initial site visit to location of new population on the SNF
- August 29, 2023 – Site visit to conduct monitoring of population and discuss management goals for the area.
- November 13, 2024 – USFS Review of New Information (RONI) related to occurrence of the decurrent false aster on the SNF provided to the Service.
- December 16, 2024 – USFS letter requesting re-initiation of formal consultation provided to the Service along with the BA.
- January 31, 2025 – Formal Consultation re-initiated with letter sent to USFS
- March 5, 2025 – Draft Biological Opinion provided to the USFS for review
- March 10, 2025 – USFS acceptance letter

BIOLOGICAL OPINION

TIERED CONSULTATION APPROACH

The PBO includes a tiered consultation approach that should also be utilized for this amendment. The Tier I level (PBO and this amendment) is the review of how the overall goals and prescribed management in the Plan will impact listed species over the life of the plan. The Tier 2 level is the review of how the site-specific future actions will affect listed species. As individual projects are proposed under the Plan, the USFS should evaluate the need for the tier 2 level of review.

DESCRIPTION OF THE PROPOSED ACTION

As defined in the ESA Section 7 regulations (50 CFR 402.02), "action" means "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies in the United States or upon the high seas." The effects of the actions and activities must be considered in conjunction with the effects of other past and present federal, state, or private activities, as well as the cumulative effects of reasonably certain future State or private activities within the action area.

The following background and area description is summarized from the BA for the proposed action. The proposed activities in the action area may include commercial or non-commercial timber harvest to achieve habitat restoration, prescribed burning, temporary-road construction, trail and recreational area maintenance, openings maintenance, levee and dam construction and maintenance, tree and shrub removal, and non-native invasive species control. In addition, parts of the action area are managed for waterfowl via controlled flooding and management of moist-soil units may also occur. Various administrative management activities could also occur and include research and population monitoring. Further descriptions of the proposed actions can be found in the BA.

Action Area

The action area is defined as all areas to be affected by the federal action and not merely the immediate area involved in the action. For the purposes of this BO, the action area includes the area depicted in Figure 1 of the BA. The action area overlaps the USFS Mississippi and Ohio Rivers Floodplains (MO) and Oakwood Bottoms (OB) management areas along with the Greentree Reservoir and Clear Creek Swamp natural areas (NA) in Alexander County, IL.

Conservation Measures

Conservation measures are those actions taken to benefit or promote the recovery of the species. These actions taken by the federal agency or the applicant that serve to minimize or compensate for project effects on the species under review are included as an integral portion of the proposed action. The BA includes several conservation measures designed to protect and enhance the decurrent false aster population within and in the vicinity of the project area.

Conservation measures identified in this BO are summarized from the BA and include:

- Caution should be taken during monitoring and seed collection activities to avoid trampling or damage to plants; collection of seed or plant parts should be limited to reduce the potential for injury or mortality to individual plants and/or loss of reproduction.
- Utilize prescribed burning as a form of disturbance to reduce competing vegetation and/or invasive species and create opportunities for decurrent false aster to establish and persist on the landscape. Conduct prescribed burning activities in the dormant season (November to February, inclusive) as is practical.
- If timber harvest or stand improvement activities occur, remove trees and shrubs shading decurrent false aster to improve growing conditions. Utilize these activities in concert with other management activities (such as fire) as a form of disturbance to increase light levels and create opportunities for decurrent false aster to establish and persist on the landscape. Conduct activities in the dormant season (November to February, inclusive) as is practical.
- Herbicide use may occur in conjunction with timber stand improvement activities and is addressed further in the section below.
- If herbicide use occurs, use targeted herbicides and targeted application methods, buffer around plants, and conduct activities in the dormant season (November to February, inclusive) as is practical.
- If non-native invasive plant management activities occur, remove plants competing with or encroaching upon decurrent false aster to improve growing conditions. If practical and consistent with management goals and objectives, consider conducting activities in the dormant season (November to February, inclusive).
- If herbicide use occurs, use targeted herbicides and targeted application methods, buffer around plants, and conduct activities in the dormant season (November to February, inclusive) as is practical.
- Where impacts occur or are expected to occur from recreational use adjacent to known population(s), implement corrective actions as needed to avoid or stop the impact.

STATUS OF THE SPECIES

This section presents the biological or ecological information relevant to formulating the biological opinion. The purpose is to provide the appropriate information on the species' life history, its habitat, and its range-wide distribution and conservation status for analyses in later sections. This section also considers the effects of all past human and natural activities or events that have led to the status of the species.

The decurrent false aster was listed as a threatened species by the Service on November 14, 1988 (53 FR 45861). It is a floodplain species that is endemic to the Illinois Waterway and parts of the Upper Mississippi River near St. Louis, Missouri (Schwegman and Nyboer 1985, USFWS 1990). Herbarium records indicate that its historical range and habitat were the shores of lakes and streams in the Illinois River floodplain and the Mississippi River floodplain at its confluence with the Illinois River (Schwegman and Nyboer 1985). A disjunct population in Cape Girardeau County, Missouri was last observed in 1976 (Schwegman and Nyboer 1985).

Species description, distribution, life history, population dynamics, and status are fully described

on pages 1-6 for the species in the decurrent false aster *(Boltonia decurrens)* recovery plan and are hereby incorporated by reference (USFWS 1990).

General Habitat Requisites

Decurrent false aster is an early successional perennial plant species that requires open areas for population establishment, and its natural habitat has been described as wet prairies, shallow marshes, and shores of open rivers, creeks, and lakes (Schwegman and Nyboer 1985). In the past, the annual flood/drought cycle of the Mississippi and Illinois Rivers provided the natural disturbance required by this species. Annual spring flooding created the requisite open, bare-soil habitat and reduced competition by eliminating less-flood tolerant competitors. Field observations indicate that in areas without disturbance, the species is eliminated by competition within three to five years. While suitable habitat has been described as stated above, no critical habitat is currently designated for the species.

Rangewide distribution and abundance

The Service's five-year review has determined that the species population status was generally stable, but potentially declining (USFWS 2012, 2020). The Recovery Plan states that the species will be considered recovered after twelve stable populations have been protected by purchase, easement, or cooperative management agreement (USFWS 1990). Recent surveys have identified 24 extant populations between 2012 and 2018, but numbers of individual plants have periodically decreased (USFWS 2020). Given the fecundity of the species and the long-term viability of achenes (Baskin and Baskin 2002), it is likely that numbers of individual plants within each known population will vary widely with changing hydraulic conditions. Overall, the rangewide population of the species is believed to be stable to date. The most prominent threats include destruction or conversion of habitat to cropland, heavy siltation and prolonged, late season flooding, herbicide use, and loss of habitat due to encroachment by woody vegetation (USFWS 1990).

Critical Habitat

Critical habitat has not been proposed for the decurrent false aster.

Conservation Needs of the Species

The species' conservation needs define what is needed in terms of reproduction, numbers, and distribution to ensure the species is no longer in danger of extinction. The conservation needs identified in the species recovery plan include determining the requirements of a naturally reproducing population through research, locating, and protecting as many existing populations as practical, enhancing existing populations through management practices where appropriate, and establishing additional populations in suitable protected habitat. The species may be considered for delisting when twelve geographically distinct self-sustaining natural or established populations of the species are protected through purchase in fee, easement or by cooperative management agreements and populations are monitored for a period of 5 years to determine if they are self-sustaining (USFWS 1990). Self-sustaining is defined, for recovery purposes, as a population which is found to be stable or expanding during the 5-year monitoring

period.

ENVIRONMENTAL BASELINE

The environmental baseline includes past and present impacts of all Federal, State, or private actions in the action area. The environmental baseline defines the status of the species and its habitat in the action area to provide a platform to assess the effects of the action.

Status of the Species in the Action Area

The decurrent false aster was not known to occur on the SNF until it was discovered in 2022 (USFS 2024). The species was initially observed in the east Cape Girardeau area in 2016 at an Illinois Department of Transportation (IDOT) wetland mitigation site. Subsequently it was observed in 2021 on Illinois Department of Natural Resources (IDNR) lands adjacent to the SNF. It is unclear when the populations became established on SNF lands and how the species became established in the area. A disjunct population in Cape Girardeau County, Missouri was last observed in 1976 (Schwegman and Nyboer 1985) and there were no previous records of the species occurring in this area prior to the 2016 observation.

Surveys for the species on SNF property were conducted in 2022, 2023, and 2024. In 2022, 110 flowering plants were found during a meandering survey of the site, 321 plants were counted during the 2023 survey, and 142 during the 2024 survey. The plants were scattered across a roughly 50-acre floodplain forest on the SNF. The scattered and sparse nature of the Shawnee NF population indicates that it is declining due to succession (P. Mettler-Cherry, pers. comm.) and this population likely went undetected for some time. In addition, Dr. Mettler-Cherry identified putative hybrids and morphological variation during an investigation of the population in 2023. Additional threats to the population identified during the site visits include powerline and road right-of-way mowing and herbicide application.

Habitat Conditions in the Action Area

The action area is a mixture of emergent and forested wetlands and agricultural fields. The habitat on the SNF is a mixture of emergent wetlands and bottomland forests dominated by willow and box elder. This species is often found in alluvial soil habitats disturbed by humans, as it relies on access to ample light and limited herbaceous competition to flourish. While the habitat on the SNF maybe not be ideal for the species, it continues to support the population of decurrent false aster, and the species is likely present within the seed bank throughout the area.

Conservation Needs of the Species in the Action Area

The conservation needs of the species in the action area are similar to the needs rangewide.

EFFECTS OF THE ACTION

This section includes an analysis of the effects of the proposed action on the species and/or critical habitat. Direct effects occur when decurrent false aster are present while the activities are

being conducted; indirect effects are caused by the proposed action and occur later in time but are still reasonably certain to occur. Effects will vary based on the type of the proposed activity. Potential effects of the proposed action as well as conservation measures are described below.

Administrative Management

Activities associated with administrative management may have direct and indirect effects on decurrent false aster. Activities that could occur include collection of plant parts (seeds, leaves, etc.) and monitoring of populations and habitat. Direct mortality or injury may occur to plants during the collection of plant parts and or trampling during monitoring activities. As a result, a range of responses is possible and include reduced reproductive success (reduced flower/seed production), reduced growth or vigor (damage to stem during collection), and mortality (delayed from injury). The potential for injury and/or mortality during seed collection and monitoring activities is very low given the experience level of individuals trained to carry out this action and these activities will be carried out in a manner consistent with applicable state collection and federal recovery permits.

The following conservation measure has been developed to avoid and minimize the potential impacts associated with administrative management in areas occupied by the species.

- Caution should be taken during monitoring and seed collection activities to avoid trampling or damage to plants; collection of seed or plant parts should be limited to reduce the potential for injury or mortality to individual plants and/or loss of reproduction.

Fire Management

Fire management could have direct and indirect effects to decurrent false aster. Fireline construction activities could result in individual plants being trampled by fire crews or the aboveground portion of the plant being destroyed. Prescribed burning could impact aboveground portions of plants (including seeds and basal rosettes) depending on fire intensity and seasonality. The roots of decurrent false aster are expected to persist through prescribed burning treatment, especially given the typically wet soil conditions at sites this species occupies. In the dormant season (November to February, inclusive), adverse effects are less likely because most aboveground portions of the plant will be senesced, and seeds will already be dispersed. Basal rosettes and newly germinated seedlings could still experience damage or mortality. Spring and summer burns could lead to damage or mortality of basal rosettes, bolting stems, and new germinants. Fall burns could also damage basal rosettes and bolting stems, with the addition of consuming seeds if burns occur after seed is set (late September/October). The direct response of the species from prescribed fire during the active season could include damage to stems or leaves (injury), reduced growth and vigor, reduced reproduction (damaged individuals may not produce flowers), and/or mortality (rootstock dies after repeated failure of above ground growth). However, disturbance from prescribed fire may also result in increased growth/vigor, increased flower/seed production, and improved survivorship especially if burning is conducted during the dormant season. Indirect effects from prescribed burns could include changes to the vegetation community. The removal of aboveground vegetation from prescribed burns may reduce

competition from other plant species and increase access to light which could improve habitat conditions for the species.

Some adverse impacts to the species are likely to occur from fire management; however, we anticipate some beneficial effects to occur from disturbance and reduced competition from other plant species. In addition, the following conservation measure has been developed to avoid and minimize the potential impacts associated with fire management.

- Utilize prescribed burning as a form of disturbance to reduce competing vegetation and/or invasive species and create opportunities for decurrent false aster to establish and persist on the landscape. Conduct prescribed burning activities in the dormant season (November to February, inclusive) as is practical.

Vegetation Management

Vegetation management could have direct and indirect effects to decurrent false aster. Timber stand improvement (TSI) activities could result in individual plants being trampled by personnel conducting TSI activities or crushing from equipment utilized for mastication. Trampling or crushing may cause direct damage to stem or leaves (injury), reduced growth and vigor, reduced reproduction (reduced flower/seed production), and mortality (rootstock dies after repeated aboveground growth failure). In addition, herbicide treatment to prevent resprouting could lead to overspray and damage of individual plants. Direct effects are less likely to occur if personnel are made aware of the plant and could be further ameliorated if TSI occurs in the dormant season when decurrent false aster is likely to be present aboveground only as basal rosettes. Indirect effects of TSI activities could be beneficial or negative. Tree removal could reduce shading and increase access to light which could lead to improved growth/vigor, increased flower/seed production, increased survivorship, and an increased population. However, this increase in light could also benefit other ground flora and increase competition which may limit the positive response of decurrent false aster. Timber harvest is currently not proposed for the action area; however, harvests may be proposed to accomplish ecological objectives for the management areas. If timber harvest is proposed, then additional project specific coordination/consultation may be necessary.

Some adverse impacts to the species may occur from vegetation management; however, we anticipate some beneficial effects to occur from disturbance and reduced impacts of shading. In addition, the following conservation measures have been developed to avoid and minimize the potential impacts associated with vegetation management in areas occupied by the species.

- If timber harvest or stand improvement activities occur, remove trees and shrubs shading decurrent false aster to improve growing conditions. Utilize these activities in concert with other management activities (such as fire) as a form of disturbance to increase light levels and create opportunities for decurrent false aster to establish and persist on the landscape. Conduct activities in the dormant season (November to February, inclusive) as is practical.
- Herbicide use may occur in conjunction with timber stand improvement activities and is addressed further in the section below.

- If herbicide use occurs, use targeted herbicides and targeted application methods, buffer around plants, and conduct activities in the dormant season (November to February, inclusive) as is practical.

Non-native Invasive Plant Management & Herbicide Use

Non-native invasive plants can be treated forest wide through the SNF Vegetation Management Strategy (VMS), using chemical and mechanical methods. Treatment activities include direct application to individual plants and/or cut stumps and does not include broadcast or aerial application at this time. Treatment activities could result in individual plants being trampled by herbicide applicators and damage to individuals could occur from herbicide overspray. The possibility of adverse effects from these activities could be reduced if personnel are made aware of the plant and if work occurs in the dormant season when decurrent false aster is likely to be present aboveground only as basal rosettes. If it is necessary to treat invasive plants in the vicinity of decurrent false aster during the growing season, targeted herbicides and a treatment buffer should be used as is practicable to reduce the possibility of direct effects from herbicide use. Treatment activities could also be beneficial by reducing competition from other plant species. This could improve growth/vigor, increased flower/seed production, increased survivorship, and an increased and increase in the decurrent false aster population.

The following conservation measures have been developed to avoid and minimize the potential impacts associated with non-native invasive plant management in areas occupied by the species.

- If non-native invasive plant management activities occur, remove plants competing with or encroaching upon decurrent false aster to improve growing conditions. If practical and consistent with management goals and objectives, consider conducting activities in the dormant season (November to February, inclusive).
- If herbicide use occurs, use targeted herbicides and targeted application methods, buffer around plants, and conduct activities in the dormant season (November to February, inclusive) as is practical.

Recreation Management

Trail construction and maintenance could have direct and indirect effects to the species. Direct effects could include the trampling of individual plants during site access and maintenance activities and/or removal of individual plants during construction. Indirect effects could include disturbance to surrounding habitats which could have negative or beneficial effects to the species. There are currently no trails near the decurrent false aster population and trail construction has not been proposed where the species occurs. In addition, any proposed trail construction and maintenance would undergo additional coordination/consultation utilizing the tiered consultation approach. Dispersed recreation could lead to direct effects to the species. This could include the trampling of individual plants causing damage to the stem, seeds, or leaves. However, the potential for this to occur is highly unlikely given the limited recreational use of this area and dispersed nature of the individual plants.

The following conservation measure has been developed to avoid and minimize the potential impacts associated with recreational management in areas occupied by the species.

- Where impacts occur or are expected to occur from recreational use adjacent to known population(s), implement corrective actions as needed to avoid or stop the impact.

Mineral Management

Minerals management could have direct and indirect effects to the species and habitat due to surface disturbance for testing and exploration. However, the USFS is not aware of any proposed activities in the action area at this time and thus no adverse effects are anticipated from these activities. If mineral exploration and/or management actions would be proposed, then additional project specific coordination/consultation may be necessary.

Land Ownership Adjustment

The goal of land ownership adjustment is the consolidation of ownership, control access, increase management efficiency, and enhance the protection and management of area values. As described in the Forest Plan EIS (USDA FS 2006b) "Land-ownership adjustment has had, and should continue to have, minimal beneficial, indirect effects on each of the threatened and endangered species. No known habitats would be sold or exchanged to any entity or agency not responsible for the protection of the species or their habitat, and habitats for some of the species could be acquired and given protection on the Forest." The USFS is aware of a single possible land acquisition in the Mississippi floodplain that is currently farmland. If this proposed land acquisition or any other land ownership adjustments are proposed, then additional project specific coordination/consultation may be necessary.

Temporary-road construction, Levee & dam construction and maintenance

Although temporary-road construction, levee & dam construction and maintenance could occur in the Mississippi and Ohio River Floodplain management area, the USFS is not aware of any planned or proposed projects and thus no adverse effects are anticipated from these activities. If activities are proposed, then additional project specific coordination/consultation may be necessary.

Controlled flooding

Controlled flooding and management of moist soil units may occur in the Oakwood Bottoms management area. Controlled flooding typically spans ~October to February, followed by drawdown and could have beneficial effects to the species by reducing competing vegetation and spreading seed. Decurrent false aster is not currently known to occur in the Oakwood Bottoms management area, thus no adverse effects are anticipated from these activities. If the species is discovered in areas where these activities are proposed, then additional project specific coordination/consultation may be necessary.

Summary of Effects of the Proposed Action

The effects due to the proposed actions, discussed above, may result in reduced fitness, injury, and mortality of individual decurrent false aster plants. However, the proposed actions will be

conducted using conservation measures designed to ensure that the level of impact from the activities is minimized and we believe many of the proposed activities may be beneficial to the species. Without any action/disturbance we anticipate that the population will continue to decline.

Cumulative Effects

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not being considered in this Biological Opinion, since they would require a separate consultation pursuant to section 7(a)(2) of the ESA, as amended.

Additional activities within the action area that could impact the species include cultivation of row crops, application of pesticides and agricultural chemicals, management of pasturelands, road maintenance, maintenance of utility line corridors, timber harvesting, forest and wetland management, and residential and commercial construction. Below are actions that are reasonably certain to occur and are likely to affect populations of the species within the action area.

Fire Management

Prescribed fire may be utilized to manage habitat on adjacent IDNR lands where the species occurs and would likely be conducted in coordination with the USFS in a cross-boundary burn unit. Thus, the effects to the species would be the same as those described for fire management implemented by the USFS. No other planned activities on nearby state lands are known currently and the area is managed as a state fish and wildlife area. So additional adverse impacts to the species are not anticipated on IDNR lands.

Right-of-Way Maintenance

Mowing and herbicide application within roadside and powerline rights-of-ways occurs in the action area currently occupied by the decurrent false aster population(s) and where the species could occur. Mowing could have both beneficial and adverse effects on decurrent false aster. This plant may be directly impacted and cut down if it is in the path of the mower, which may cause whole plant mortality or reduce its ability to reproduce in the year when it was mowed. Herbicide application could result in individuals being sprayed, causing mortality and/or reduced ability to reproduce. Herbicide drift or overspray was observed in the fall 2023. Decurrent false aster plants in the ditch adjacent to USFS land exhibited signs indicative of herbicide damage (twisting of stems and deformity) and the surrounding plants were dead. Mowing and herbicide application may also indirectly benefit surviving decurrent false aster plants by reducing competing vegetation and the disturbance could cause a positive response.

Summary of Effects

Our analysis of effects for the decurrent false aster entails: (1) evaluating individual decurrent false aster exposure to action-related stressors and response to that exposure; (2) integrating those individual effects (exposure risk and subsequent response) to discern the consequences to

the populations to which those individuals belong; and (3) determining the consequences of any population-level effects to the species rangewide. If, at any point, we demonstrate that the effects are unlikely, we conclude that the agency has insured that their action is not likely to jeopardize the continued existence of the species, and our analysis is completed.

Impacts to Individuals

Implementation of the project may result in some adverse fitness consequences for individuals and propagules occurring within the action area. These adverse consequences are most likely to be as either injury or death of individual decurrent false aster and propagules from direct or indirect exposure to USFS actions. However, we expect the potential for death or injury to be minimized with adherence to the proposed conservation measures and we believe many of the proposed activities may be beneficial to the species.

While analyzing the effects of the proposed action, we identified the life stages that would be exposed to the stressors associated with the proposed action and analyzed how those individuals would respond upon exposure to the stressors. From this analysis, we determined that:

1) There is no proposed critical habitat for the decurrent false aster, and thus, none will be adversely affected.

2) All life stages of decurrent false aster will be exposed to various project stressors and are likely to adversely respond to some of them. We anticipate that a few individuals will be directly impacted by the proposed activities and that the remaining individuals within the population on the SNF (as described in the Environmental Baseline) will be exposed to additional project stressors and may respond negatively or positively.

In summary, there may be impacts to individual decurrent false aster in either their annual survival or reproductive rates.

Impacts to Populations

As we have concluded that individual decurrent false aster plants are likely to experience reductions in either their annual or lifetime survival or reproductive rates, we need to assess the aggregated consequences of the anticipated reductions in fitness (i.e., reproductive success and survival), of the exposed individuals on the population(s) to which these individuals belong.

While there is potential for direct take of a few individuals and propagules from the proposed activities, given the current dispersed distribution and abundance of the decurrent false aster within the action area (as described in the Environmental Baseline) and implementation of the proposed conservation measures, the decurrent false aster should be able to continue to survive and reproduce within the project area. In fact, many of the proposed activities may be beneficial to the species and without any action/disturbance we anticipate that the population will continue to decline.

Impacts to the Species

We find that implementation of the Plan and other USFS decisions within the action area are unlikely to have population-level impacts, and thus, is unlikely to decrease the overall reproduction, numbers, or distribution of the decurrent false aster rangewide. Therefore, we do not anticipate a reduction in the likelihood of both survival and recovery of the species as a whole.

CONCLUSION

Section 7(a)(2) of the Endangered Species Act requires that Federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. "Jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species" (50 CFR 402.02).

After reviewing the status of the decurrent false aster, the environmental baseline for the action area, the effects of the proposed actions, and the cumulative effects, it is the Service's biological opinion that implementation of the Plan and other USFS decisions conducted according to the Plan, are not likely to jeopardize the continued existence of the species. No critical habitat has been designated for this species; therefore, none will be affected.

INCIDENTAL TAKE STATEMENT

Sections 7(b)(4) and 7(o)(2) of the Act generally do not apply to listed plant species; however, limited protection of listed plants from take is provided to the extent that the Act prohibits the removal and reduction to possession of Federally listed endangered plants from areas under Federal jurisdiction, the malicious damage or destruction of such plants on areas under Federal jurisdiction, or the destruction of listed plants on non-Federal areas in violation of State law or regulation or in the course of a violation of a State criminal trespass law.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measure(s) are necessary and appropriate to minimize the effects of the project on decurrent false aster:

1. All conservation measures for the decurrent false aster will be implemented.
2. Decrease possible adverse impacts to the decurrent false aster through compliance with Terms and Conditions set forth below.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the ESA, the USFS must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. To reduce the possible impacts to the decurrent false aster, the following is necessary:

a) During management activities, the effects of project actions on decurrent false and their habitat must be considered and avoided or minimized to the greatest extent possible. This should include an updated survey of the existing population prior to activities being implemented.

REPORTING REQUIREMENTS

To monitor the impacts of incidental take, the USFS must report the progress of the Action and its impact on the species to the Service. The purpose of reporting the results of monitoring is to inform our understanding of the impacts of the Action on the status of the species.

1. If new populations or locations are observed within the action area, the USFS shall contact our office to report the observation within five (5) business days of discovery.
2. Any removal or disturbance of existing plants including seed collection shall be recorded and reported to our office in a timely manner and in a final summary report.
3. An annual summary report should be provided to our office describing surveys conducted within the action area, including effects to individuals, population updates, and success of the conservation measures. Accurate and timely reporting will help to validate the ongoing accuracy of the analysis conducted in the biological opinion.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, to help carry out recovery plans, or to develop information.

The Service has identified the following actions that, if undertaken by the USFS, would further the conservation of the decurrent false aster.

- Continuing research and efforts to address the conservation needs of the species including determining the requirements of a naturally reproducing population through research, protecting existing populations as practical, enhancing existing populations through management practices where appropriate, and establishing additional populations in suitable protected habitat.

For the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the conservation recommendations carried out.

REINITIATION NOTICE

This concludes re-initiation of formal consultation for the actions outlined in your request dated December 16, 2024. As provided in 50 CFR § 402.16, reinitiation of consultation is required where discretionary federal agency involvement or control over an action has been retained (or is authorized by law) and if: (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (2) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (3) a new species is listed or critical habitat is designated that may be affected by the action.

Sincerely,

MATTHEW MANGAN

Digitally signed by MATTHEW MANGAN
Date: 2025.03.10 15:03:00 -05'00'

Matthew T. Mangan
Fish and Wildlife Biologist

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