



DATE: February 10, 2021

MEMO TO: Nels Leutwiler, Chair
Committee of the Board

FROM: James L. Anderson
Director of Natural Resources

RECOMMENDATION: Recommend approval of \$30,000 grant from unrestricted funds to support the Forest Preserves Rare Conservative Plant Recovery Project.

FINANCIAL DATA: Funding will be payable to the Forest Preserves over a three-year period.

BACKGROUND: The Forest Preserves strives to maintain viable populations of all naturally occurring species native to our preserves. For many widespread and common species, standard management practices such as burning and invasive species control suffice to support thriving populations. Other species – principally those with highly specialized biotic and abiotic requirements – require specialized management practices such as genetic augmentation of existing populations, hand pollination to ensure high quality seed set, and propagation by either seed or cuttings to increase both the size and number of existing populations.

While there are more than 100 plant species of special concern on Forest Preserve lands, we request funds to support specialized management of those most critically in need of these specialized interventions. The project aligns with the District's strategic objective to ensure no species are lost within Lake County.

REQUEST

We propose to expand our partnership with the Chicago Botanic Garden's Plants of Concern program to focus on five plant species that are dangerously close to extinction in our preserves. District staff will work with Plants of Concern staff and volunteers to conduct enhanced demographic monitoring, undertake hand pollinations, collect seed, and begin propagation in order to restore these conservative species in our preserves. It builds on the success of a two-year project, funded by a previous grant from the Foundation Annual Fund.

Three of our five focal species are orchids, and we will make an effort to secure direct donations from new and previous donors, such as the Illinois Orchid Society, to partially off-set this grant funding. The five species include:

Carolina vetch (*Vicia carolinina*)



Imperiled throughout the region, this species was last seen at Grant Woods in 2018. It has become extinct in many Chicago region counties. A diminutive population at Deer Grove Forest Preserve is the last remaining population in Cook County, and the only remaining viable population in our region is at Moraine Hills State Park. This species is a strong candidate for re-introduction into our restored and managed open woodlands and savannas such as Wadsworth Savanna, Tanager Kame, Cuba Marsh and Gander Mountain Forest Preserves.

Prairie Gentian (*Gentiana puberulenta*)



ensure success.

Only known from a few individuals at Cuba Marsh's Ela Prairie remnant, this species is considered very rare throughout the Chicago Wilderness region. Where found, it is indicative of high quality dry mesic prairies. The District's maturing prairie restorations at Rollins Savanna, Tanager Kame, Gander Mountain, and the McLean restoration area at Lakewood provide excellent re-introduction sites. Propagating from seed is a considerable challenge, and staff at both CBG and from the Forest Preserves Seed Nursery will work together, pooling their expertise to

White Lady's Slipper Orchid (*Cypripedium candidum*)



One of the floral "crown jewels" of Lake County, this species is only found at Grant Woods Forest Preserve and one other private conservation holding (Citizens For Conservation) in the county. At one time it was abundant, but habitat destruction has decimated populations region wide. Grassy Lake, Rollins Savanna, Gander Mountain, Middlefork Savanna, and Marl Flat Forest Preserves now provide suitable habitat. Seeds collected from two nearby populations have been sown in sterile medium by a specialist orchid propagator and will be sent to the District's Seed Nursery for further development before being planted at selected preserves.

Purple-Fringed Orchid (*Platanthera psychodes*)



Purple-fringed orchid is rare across the region, and has been designated as a Priority Plant Species by Chicago Wilderness. Like many orchids, the species is not readily amenable to propagation from seed because it requires a fungal partner for successful seed germination and plant establishment. One previously unknown population of this species was located in 2020, but the majority of plants failed to set seed. We will undertake additional hand pollination, including between populations, to ensure successful natural reproduction.

Grass Pink (*Calapogon tuberosus*)



This species is also a Chicago Wilderness Priority Plant and is of regional conservation concern. We will work with Plants of Concern to collect seeds of this species for propagation and for distribution with partner agencies throughout the Chicago Wilderness region. Reintroduction efforts are an important means to securing this species region-wide.

SCOPE OF WORK

- Enhanced Monitoring of select species/populations of conservative plants
- Pollen collection and hand pollination (within & possibly between sites)
 - Assessment of seed set
 - Seed collection
 - Seed dissemination at existing/adjacent location or in identified appropriate habitat
- Seed germination & plant propagation
- Propagule planting
- Follow-up monitoring on newly introduced populations

The work plan for these conservative species will provide valuable information the species' life cycle, including identifying genetic and habitat quality barriers affecting population expansion, population-modeling map clear distribution and population levels, providing additional plants for new locations with a greater genetic diversity, and increasing our rare conservative plant collaboration with other land management agencies.

The requested funding will allow the District to continue work on the initial three species begun in 2019 and to expand these efforts to the additional rare species outlined here. As several of our

target species are difficult to establish from seed, requiring a long time horizon from seed to planting, we are requesting funds for three years to ensure adequate support.

BUDGET

ITEM	ITEM COST	TOTAL
Conservative Species Ecological Technician (CBG)	\$10,000 for 3 years	\$30,000
TOTAL		\$30,000

REVIEW BY OTHERS: Board President, Preservation Foundation Executive Director.

COMMITTEE OF THE BOARD:

Date: _____ Roll Call Vote: Ayes: ____ Nays: _____

Voice Vote Majority Ayes; Nays: _____