



Preservation Foundation
of the Lake County Forest Preserves

DATE: May 11, 2022

MEMO TO: Nels Leutwiler, Chair
Preservation Foundation Board

FROM: Pati Vitt
Director of Natural Resources

RECOMMENDATION: Recommend approval of an \$8,000 grant from unrestricted funds to provide emergency cleaning supplies and *emydomyces* testing and treatment as part of the Blanding's Turtle Recovery Program.

FINANCIAL DATA: The requested funds will be paid in full in Summer 2022.

As of March 31, 2022, the Foundation's total of unrestricted funding was \$410,325. Grants payable from the unrestricted funds as of March 31, 2022 include:

Year	Amount
2022	\$167,606
2023	\$79,550
2024	\$22,200
Total Grants Payable from Unrestricted Funds	\$269,356

BACKGROUND: The Blanding's Turtle (*Emydoidea blandingii*), an endangered species in Illinois, has experienced range-wide declines due to habitat loss, degradation, and fragmentation in combination with low levels of both juvenile recruitment and adult survivorship. As such, this turtle has been the focus of many conservation efforts conducted by numerous natural resource agencies, including the Lake County Forest Preserve District (District). These conservation efforts have largely focused on the juvenile life stage and have attempted to address the lack of recruitment through actions like nest protection and head-starting. However, infectious disease and overall health threats have largely been ignored or under-studied.

To address this emerging threat, the District began working with the University of Illinois Wildlife Epidemiology Lab in 2016 to better understand the epidemiology of pathogens within our populations and the implications it may have on Blanding's turtle conservation efforts. In 2017 and 2018, the Preservation Foundation Board of Directors approved two Annual Fund grants of \$26,000 and \$24,000, respectively, to determine pathogen prevalence and perform population health diagnostics. Following these initial grants, the District secured direct funding from grants and private donations totaling approximately \$107,500.00 to continue this health assessment work.

In February 2022, the University of Illinois' Wildlife Epidemiology Lab began testing samples collected from turtles in Lake County for the fungal pathogen *Emydomyces testavorans* (*Emydomyces*). *Emydomyces* is associated with Pond Turtle Shell Disease which can cause ulcerative shell and skin lesions that can lead to morbidity and mortality in freshwater turtles. Of

the over 500 samples tested, the District was informed that 3 wild turtle samples collected in 2019 tested positive for *emydomyces*. These results led the District to conduct additional tests at the head-starting facility to determine if the *emydomyces* was also present in the captive population. Results from that testing in March revealed that this fungus *was* present in some (not all) of the tubs in which water samples were collected. The District responded by immediately placing in quarantine all tubs that tested positive for *emydomyces* and developed strict biosecurity protocols to prevent the further spread.

The proposed grant will provide emergency resources to 1) help contain and prevent the spread of *emydomyces* both *in situ* and at District facilities, 2) test additional batches of turtles to facilitate release in the wild, and 3) potentially treat positive animals so that they can be put to conservation use in the future.

Funding Request

The \$8,000 grant will be used to purchase disinfection equipment and supplies (likely including Virkon S, UV sanitizer submersible light systems, an ozone water purification system and personal protective equipment) as recommend by the University of Illinois Wildlife Epidemiology Lab (\$5,500). It will also provide support for additional testing and treatment of *emydomyces* positive turtles in both captive and wild individuals that are not covered by an existing grant (\$2,500).

REVIEW BY OTHERS: Executive Director, Chief Operations Officer, Director of Finance, Director of Administration, Preservation Foundation Executive Director

PRESERVATION FOUNDATION BOARD:

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

Voice Vote Majority Ayes; Nays: _____