

# **SHAWNEE KARST PRESERVE MANAGEMENT AGREEMENT**

This MANAGEMENT AGREEMENT is hereby entered into by and between the Indiana Karst Conservancy hereinafter referred to as IKC, and The Nature Conservancy, hereinafter referred to as TNC.

## **PURPOSE:**

To ensure that the land acquired with financial assistance from TNC is devoted to long-term conservation uses that are consistent with TNC's conservation goals, which are to help ensure that a large portion of the Donaldson/Shawnee Cave system is not impeded by increased impervious surface and water quality degradation through above-ground land practices.

## **PURPOSE OF IKC:**

The Indiana Karst Conservancy (IKC) is a 501(c)(3) non-profit organization dedicated to the preservation and conservation of Indiana's unique karst features. The IKC was formed by concerned individuals when it became apparent that no similar group was actively protecting such features for their inherent geological, biological, and historical importance.

The purposes of the IKC are the management, protection, and acquisition of the karst areas in southern Indiana. The IKC also supports research and promotes education related to karst and its appropriate use. Many of today's abuses in karst areas arise from lack of understanding and knowledge.

## **PROPERTY DESCRIPTION:**

The Shawnee Karst Preserve is a 50.31-acre tract located on State Road 60, approximately 4 miles east of the junction of State Road 37 & State Road 60 in Mitchell, Indiana, Marion Township, Lawrence County, Indiana. The property is also located approximately ¼ mile south of Spring Mill State Park. A legal description is attached as Exhibit A.

This property is characterized by numerous large sinkholes and one significant cave entrance. It is a mix of forest and old fields, but all of the forest was harvested in 2010 so the forest has many openings and tree damage. The property overlays the Donaldson/Shawnee Cave system, which is one of Indiana's larger caves and is one of the best sites in Indiana for Northern cavefish. This species is restricted to subterranean waters in Indiana and Kentucky and is known from a total of less than 100 sites; most Northern cavefish populations are small. This fish is state endangered in Indiana. Its habitat is highly vulnerable to alteration by human activities and natural events that affect ground water. The property is currently dominated by oak, poplar and cedar. State Highway 60 forms a portion of the northern boundary of this tract and the remaining boundaries are private ownership, mostly pasture. There is one immediately adjacent residence.

The Donaldson/Shawnee Cave system is over 25,000 feet of mapped passage and is considered an aquatic cave due to the stream flowing through the base passage. Approximately 1/3 of the total cave passage occurs within Spring Mill State Park with the remainder of the upstream

passage on private land south of the park. While much of the cave passage is on private land, this particular acquisition will secure the most upstream entrance and one of the two remaining entrances to the cave that are on private property. More than two miles of cave passage exists upstream from the IKC's entrance. The cave's system is significant due to the large population of Northern cavefish. Fifteen troglobites are currently known from this system and this number is based on previous literature and casual observation with no formal bioinventory yet conducted. In addition to the biological significance of the cave, the above ground landform is an excellent example of a Mitchell Sinkhole Plain with oak and hickory species along with a small barren remnant and sinkhole pond.

Conservation targets in the Donaldson/Shawnee Cave system include: Weingartner's cave flatworm, Donaldson's cave copepod, a cave isopod, Packard's groundwater amphipod, Northern cave crayfish, Donaldson cave water mite, Indiana cave pseudoscorpion, Cavernicolous sheet-web spider, Subterranean sheet-web spider, Bollman's cave millipede, an undescribed cave dipluran, Young's cave beetle, Marengo cave beetle, Cave dung fly, and Northern cavefish.

**AGREEMENT DURATION:** This Management Agreement shall be in effect from the later date of the two executing signatures through May 31, 2037 and may be extended upon mutual agreement of the parties. Unless the subsequent landowner is a state or federal agency that will include the Property in its long-term management for conservation, IKC agrees to obtain the written agreement of any subsequent landowners to be bound by the terms of this Management Agreement.

#### **CONSERVATION OBJECTIVES OF THE SHAWNEE KARST PRESERVE:**

Ensure the long-term viability of the Donaldson/Shawnee Cave system by:

- minimizing surface disturbance and soil erosion
- maintaining and enhancing native vegetation and habitat on the property

#### **MANAGEMENT OBJECTIVES:**

The IKC will manage the cave under the Shawnee Karst Preserve for recreational access and scientific study by responsible and experienced cavers while at the same time protecting its resources for future generations. The surface property will be managed to maintain/enhance the karst values, sub-surface water quality, and the overall natural setting.

**SUBSURFACE MANAGEMENT:** Upper Twin Cave (the upper section of the Donaldson/Shawnee Cave system) will be managed as a natural, wild cave. No improvements for the convenience of the visitors will be allowed or desired. Digging or other alterations for exploration or expansion of the cave is prohibited without prior approval of the IKC Executive Board. Cave restoration (other than trash removal) is limited to IKC-sponsored workdays and similar events. The purpose is to keep all restoration methods consistent with IKC approved practices.

At this time the IKC is not restricting maximum group size, the number of cavers in the cave, or the frequency of cave trips. However, the biological diversity of this cave system is high and the

cave contains a number of rare species. At the discretion of the IKC Executive Board, additional restrictions may be necessary if faunal populations are observed to be negatively impacted by existing visitation practices.

There shall be no mining, drilling, exploring for or removal of minerals from the Shawnee Karst Preserve.

**SURFACE RESOURCES:** The preserve consists of 50.31 acres of mostly wooded karst terrain. All drainage of the property is subterranean. A number of sinkholes are found on the property, several of which take water after rains. One sinkhole pond and a one-acre limestone glade with native grasses is also present providing additional wildlife and plant habitat.

At the time of purchase, the property had recently been logged. There are several stands of cedar trees and the logging roads remain open.

#### **SURFACE MANAGEMENT:**

Trees and Vegetation. The property has been enrolled in the DNR Classified Forest program. The surface will be managed according to the forest stewardship plan. Any native trees existing or introduced to the property will be maintained using current best practices outlined by the DNR Division of Forestry. Volunteer trees seeded from nearby wooded areas will not be removed unless the species are noxious or non-native. Native tree planting in open areas is allowed, but no non-native species shall be introduced. Controlled burning or minimal application of approved herbicides may be pursued as needed for vegetative management. Vine control and Timber Stand Improvements will be utilized for maintaining and enhancing a healthy and diverse forest rather than for marketable timber production.

IKC may use native grass/plant seeding, water bars, day lighting, and other necessary means to prevent erosion along roads, skidder trails, and hiking trails. IKC may restore native barrens and karst features, such as a sinkhole pond. All management activities should follow management practices that will not harm or damage the conservation targets as listed in the property description.

Roads and Vehicle Use. There shall be no building of new roads or other rights of way except for paths and foot trails consistent with the preservation of the Shawnee Karst Preserve. Existing roads/skidder trails may be maintained but shall not be widened or improved, except that part of the existing road will be upgraded to a gravel driveway into the interior of the property. There is a low spot in this driveway that ponds water and may require a culvert or other drainage modifications. Several locations along the driveway will require additional hardening, water bars, and drainage diversions. A road gate with combination lock has been installed near the highway to control unauthorized vehicle access.

Except for maintenance activities and emergencies, vehicular use is restricted to the hardened driveway and designated parking area.

Riding of horses, dirt bikes, mountain bikes, or similar conveyances is prohibited on the preserve. All-terrain vehicles (ATVs) are also prohibited for recreational use, but may be used occasionally to facilitate restoration or maintenance objectives, or for emergencies.

Trails. The IKC may construct a trail system on the property for interpretive and recreational purposes. Existing logging trails will be used first as they are already established. No boardwalks, bridges, overlooks, or similar improvements will be installed unless needed to facilitate maintenance. Once established, occasional mowing may be used to maintain the trails until sufficient foot traffic hardens the paths. Other measures (such as installation of water bars or aggregate) may be necessary to control erosion on steeper sections.

Human Uses: Hunting and trapping are prohibited except as needed for appropriate wildlife management; and will be performed in a manner in keeping with state wildlife regulations. The discharging of firearms, fireworks, or other explosive devices will not be allowed. Collecting on the property is prohibited with the exception of mushrooms, berries, and nuts.

Campsites: The IKC will establish no more than three campsites on the preserve, with parking sufficient for two vehicles per site. This is in addition to the main parking area for visiting the cave. Minimal amenities will be provided so as to provide a safe but primitive camping experience. These campsites are restricted to IKC members and their guests, and are available on a first-come, first-served basis. The IKC will not provide facilities for group camping on this property. Downed firewood may be collected on the property. To mitigate possible introduction of tree pests and parasites, campers shall not bring firewood onto the property unless purchased from an approved USDA source or kiln-dried lumber scraps.

Commercial Activity. Other than camping or visitor use fees (which may or may not be charged in the discretion of IKC), there shall be no industrial, commercial, agricultural, or commercial recreational activity undertaken or allowed on the Shawnee Karst Preserve.

Structures. Except for an informational kiosk and a port-a-john, there shall be no construction or placing of any house, garage, barn or other building, tennis or other recreational court, landing strip, mobile home, swimming pool, fence or sign (other than as described herein.), asphalt, concrete pavement, billboard or other advertising display, antenna, utility pole, tower, conduit, line, sodium vapor light or any other temporary or permanent structure or facility on the Shawnee Karst Preserve.

Water. Except for the repair of two existing wildlife impoundments, there shall be no manipulation or alteration of creeks, streams, surface or subsurface springs, the sinkhole pond or other bodies of water or the shorelines thereof or any activities on or uses of the Shawnee Karst Preserve detrimental to water purity or quality.

Topography. There shall be no ditching; draining; diking; filling; excavating; removal of topsoil, sand, gravel, rock, or other materials; or any change in the topography of the land in any manner except in conjunction with activities otherwise specifically authorized herein.

Dumping. There shall be no dumping of trash, non-compostable garbage, hazardous or toxic substance, or other unsightly or offensive material. There are at least two existing trash dumps on the preserve and other un-natural debris. These items will be hauled away or recycled on or before December 31, 2014.

Animals. There shall be no livestock and no feedlots permitted on the Shawnee Karst Preserve.

Signs. IKC may place interpretive signs, required Classified Forest signs, and “no hunting,” “no trespassing” or similar signs on the Shawnee Karst Preserve.

Fences. The IKC may construct, repair, replace, maintain, improve or remove exterior fencing as the IKC deems necessary to secure the Shawnee Karst Preserve. New interior fencing is generally prohibited, but may be permissible to restrict wildlife browsing or for appropriate scientific research.

**SCIENTIFIC STUDIES AND RESEARCH.** Scientific studies and research projects are encouraged on IKC properties. However, any projects that could potentially compromise existing natural resources or violate any conditions of this Management Agreement must be approved by both parties.

**ENFORCEMENT.** TNC shall have the right to enter the Shawnee Karst Preserve, in a reasonable manner and at reasonable times, but always upon prior notice to IKC, for the purposes of:

- a. Inspecting the Shawnee Karst Preserve to determine if the IKC is complying with the provisions of this Management Agreement;
- b. Making scientific and educational observations and studies and taking samples in such a manner as will not disturb the quiet enjoyment of the Shawnee Karst Preserve by the IKC;
- c. Monitoring as described below.

**MONITORING.** TNC shall have the right, but not the obligation, to monitor the condition of the rare plant and animal populations, plant communities, and natural habitats on the Shawnee Karst Preserve, and to make recommendations, if necessary, to ensure their continued presence and viability on the Shawnee Karst Preserve. TNC will meet with the IKC on the Shawnee Karst Preserve every five (5) years to evaluate management activities and to ensure that the terms of the Management Agreement are being met, and to discuss any suggested changes to management methods.

**AMENDMENT TO THIS AGREEMENT.** The scope of this Management Agreement is broad, and it is expected that some details may need future revisions. In such situations, any changes must be approved by both parties in writing.

**TERMINATION OF THIS AGREEMENT.** Early termination of this Management Agreement is allowed only if due to unforeseen circumstances or transfer of the property to a state or federal agency as described on page 2 herein, and must be approved by both parties in writing.

IN WITNESS WHEREOF, the parties hereto have executed this Management Agreement as of the last written date below.

THE NATURE CONSERVANCY

INDIANA KARST CONSERVANCY

 6-1-2012

DATE

State Director

 8-20-2012

DATE

President

## LEGAL DESCRIPTION

### EXHIBIT A

Part of the southeast quarter of the southwest quarter and part of the southwest quarter of the southeast quarter of Section 4, Township 3 North, Range 1 East, more particularly described as follows:

Beginning at an iron pipe at the southeast corner of the said southwest quarter of the southeast quarter; thence south 89 degrees 33.9 minutes west on the south line of said Section 4, 2665.82 feet to an iron pipe at the southwest corner of said southeast of the southwest quarter; thence north 00 degrees 23.2 minutes east, on the west line of said southeast quarter of the southwest quarter, 585.50 feet to an iron pipe; thence north 89 degrees 33.9 minutes east, 969.91 feet to an iron pipe; thence north 00 degrees 23.2 minutes east; 347.51 feet to a marked 1/2 inch iron pipe; thence south 89 degrees 36.8 minutes east, 303.52 feet to a marked 1/2 inch iron pipe; thence north 65 degrees 00.0 minutes east 210.00 feet to a marked 1/2 inch iron pipe; thence south 87 degrees 07.0 minutes east, 520.91 feet to a marked 1/2 inch iron pipe; thence south 07 degrees 00.7 minutes west, 61.74 feet to a marked 1/2 inch iron pipe; thence north 70 degrees 33.5 minutes east, 315.34 feet to a marked 1/2 inch iron pipe on the southwest right of way line to State Road #60; thence following said right of way line, south 58 degrees 05.3 minutes east, 308.94 feet to a concrete right of way marker; thence south 50 degrees 34.0 minutes east, 166.37 feet to a marked 1/2 inch iron pipe on the east line of the said southwest quarter of the southeast quarter; thence south 00 degrees 23.2 minutes west, 755.33 feet to the point of beginning.

Containing 50.31 acres, more or less.