



IKC Update

A QUARTERLY PUBLICATION OF THE INDIANA KARST CONSERVANCY
JUNE 1998 NUMBER 49

INDIANA KARST CONSERVANCY, INC.

PO Box 2401, Indianapolis, IN 46206-2401
Affiliated with the National Speleological Society.



The Indiana Karst Conservancy is a non-profit organization dedicated to the conservation and preservation of caves and karst features in Indiana and other areas of the world. The Conservancy encourages research and promotes education related to karst and its proper, environmentally compatible use.

EXECUTIVE BOARD

President

Bruce Bowman (1999)
 (317) 539-6935(H)/(317) 276-4098(W)
 Bowman_Bruce_E@lilly.com

Secretary

James Adams (1999)
 (317) 882-3724(H)/(317) 263-1611(W)
 JKAdams@aol.com

Treasurer

Keith Dunlap (1999)
 (317) 882-5420(H)/(317) 242-2505(W)
 KDunlap@atd.gmeds.com

Directors

Bruce Devore (1999)
 (219) 639-7249
 BDevore@gte.net

Dave Haun (1999)
 (317) 781-1996
 DEHcave@indy.net

Kriste Lindberg (1999)
 (812) 339-7210
 Lindberg@indiana.edu

Steve Lockwood (1999)
 (812) 849-5766
 SDL@kiva.net

Nick Noe (1999)
 (317) 782-3442
 NickNoe@classic.msn.com

Tom Rea (2000)
 (765) 653-4423
 TRea@caves.org

Bob Sergesketter (2000)
 (812) 482-5517

Tom Sollman (1999)
 (812) 753-4953
 Sollman@juno.com

Bill Tozer (2000)
 (765) 778-3259
 WTozer@aol.com

Bob Vandeventer (2000)
 (317) 888-4501
 VandeventerB@tce.com

Richard Vernier (2000)
 (812) 385-5058
 Richard_Vernier@sec.siemens.com

Kathy Welling (2000)
 (765) 653-6352
 KathyD@ccrtc.com

COMMITTEES/CHAIRPERSON

Management & Owner Relations

Keith Dunlap
 (see E-Board list)

Land Acquisition

Hank Huffman
 (812) 876-9645
 HankandEllen@worldnet.att.net

Membership

James Adams
 (see E-Board list)

Publications

Keith Dunlap
 (see E-Board list)

Hoosier Forests Project

Steve Lockwood
 (see E-Board list)

MANAGED CAVES/PATRONS

Coon Cave

Keith Dunlap
 (see E-Board list)

Grotto Cave

Keith Dunlap
 (see E-Board list)

Shaft Cave

Jeff Cody
 (317) 888-9898

Shiloh Cave

James Adams
 (see E-Board list)

Suicide Cave

Ronnie Burns
 (812) 883-6543

Sullivan Cave

To Be Assigned

Wayne's Cave

Serena Smith
 (812) 339-2394

Woodard Cave (TN)

Bruce Devore
 (see E-Board list)

GROTTO/LIAISONS

Bloomington Indiana Grotto

Anmar Mirza
 (812) 339-1506
 AMirza@silver.ucs.indiana.edu

Bloomington Indiana Grotto

Kriste Lindberg
 (see E-Board list)

Central Indiana Grotto

Keith Dunlap
 (see E-Board list)

Dayton Underground Grotto

Mike Hood
 (513) 252-2978
 MHCaver@aol.com

Eastern Indiana Grotto

Brian Leavell
 (765) 552-7619

Evansville Metro Grotto

Ernie Payne
 (812) 477-7043

Harrison-Crawford Grotto

Dave Black
 (812) 951-3886
 DBlack@venus.net

Louisville Grotto

Richard Newton
 (812) 365-2495

Mid-Hoosier Grotto

Jeff Cody
 (317) 888-9898

Northern Indiana Grotto

Clyde Simerman
 (219) 422-3030

St Joseph Valley Grotto

Ted Bice
 (219) 892-6337
 ImaCaver@dnsonline.net

Stygian Grotto

Richard Orr
 (314) 521-0355

Western Indiana Grotto

Don Ingle
 (812) 466-5015

Windy City Grotto

Steve Petruniak
 (414) 279-3601

Cover - Tom Sollman and Dick Vernier performing trail work
 during Under Earth Day 98 at Sullivan Cave.

Photo by James Adams © 1998

Editor Keith Dunlap.
 Publishers Keith Dunlap & Bambi Erwin.



QUARTERLY MEETING REMINDER

SATURDAY, JUNE 20th, 7:00 PM

BLOOMINGTON, INDIANA

IU GEOLOGY BUILDING, ROOM 143

(SAME ROOM AS BIG MEETING)

The annual business meeting is for the explicit purpose of elections. It is also for members and other interested persons to have an open forum for talking about cave and karst conservation and related topics. Past, present, and future IKC projects are discussed to solicit comments and input from our members and the caving community as a whole. The meeting is informal, and everyone is encouraged to attend and participate.

Preliminary Agenda Items: Brief recaps of last quarter's activities; Sullivan Cave acquisition status; Other land acquisition progress; IDNR cave permit policy; Other IDNR activities; HNF inventorying project; HNF/IKC committee status; Other HNF activities; Cave water sampling in Harrison County status; Fall work projects; and more....

Meeting directions: The Geology Building is located at 10th and Walnut Grove. Tenth Street runs east/west and is one of the major streets that cut across the IU Campus. Park behind the building, parking permits are not enforced at night. Enter the building from the rear at the west end. The room is halfway down the hall on the right.

EVENTS CALENDAR

- 20 JUN = HNF CAVE INVENTORY WORKDAY (contact Kriste Lindberg)
- 20 JUN = HANCOCK PROPERTY WORKDAY, Bloomington (see page 4)
- 20 JUN = IKC QUARTERLY MEETING, Bloomington (see above)
- 18 JUL = HNF COMMITTEE MEETING/HNF CAVE INVENTORY WORKDAY
- 15 AUG = HNF CAVE INVENTORY WORKDAY (contact Kriste Lindberg)
- 19 SEP = LOST RIVER TOUR, Orleans (contact Bob Armstrong)

For more information on the Indiana Karst Conservancy, visit our web site at <http://www.caves.org/conservancy/ikc> or write to our PO box. Membership to the IKC is open to anyone interested in cave and karst conservation. Annual dues are \$15. Please see inside back cover for the membership application form or to make a donation.

The *IKC Update*, distributed for free, is published quarterly for members and other interested parties. The purpose of this newsletter is to keep the membership and caving community informed of IKC activities and other news related to cave/karst conservation. Submission of original or reprinted articles for publication is encouraged.

IKC Update (ISSN 1076-3120) copyright © 1998 by the Indiana Karst Conservancy, Inc. Excluding reprinted material and individually copyrighted articles and artwork, permission is granted to National Speleological Society affiliated organizations to reprint material from this publication, with proper credit given to the author/artist and the *IKC Update*. Articles do not necessarily represent the opinions of the IKC, the National Speleological Society, or their respective members.

RAMBLINGS FROM THE PRESIDENT...

I hate fund raising!

I do like what significant cash flow can do for an organization, and that's what excites me about what the IKC has taken on with our Sullivan purchase. But I still hate fund raising.

I was once a director of another environmental organization. The main reason I resigned from that position was because it wasn't made clear to me exactly what I was getting into. But the fact that I was expected to ask people for money also weighed heavily in that decision to resign. It's simply not something I like to do. I suspect the same can be said for most people.

Despite this, we're really doing quite well with the Sullivan Cave acquisition fund. At last count, we've received more than half of our \$70,000 goal in actual cash donations, with another \$7000 or so coming in the form of pledges. That's a tremendous start.

However, experience shows that the first half of the money is the easiest to raise. Having already hit up most of the people who are really interested in contributing, we now have our work cut out for us to reach our eventual goal. There are a few other plans in the works, but nothing that will make up the

\$27,000 or so we still have yet to go. We can finance the remainder, but it would really be nice if the IKC didn't have to go into debt to buy this property -- wouldn't it?

It looks like the next step is to pursue more grant opportunities. We've already gotten the "easy" ones -- local grottos, the NSS, RASS -- it will be harder to convince other foundations that we're worthy of their funding. All along, I've told people that I'll help pursue these kinds of opportunities. At the same time, I don't have much experience doing something like that; not successfully, anyway. I guess now is the time to just jump in and get my feet wet.

For your part, if you haven't made a contribution to the Sullivan Cave acquisition fund, please consider doing so now. If you've already done what you can, encourage others to do the same and please give some thought to other ideas on how to raise the remaining funds, and pass them along. My email and phone number are on the inside front cover...and anyone who has contacted me will tell you that I listen to our membership and greatly value their input.

- Bruce Bowman

HANCOCK PROPERTY WORKDAY - SATURDAY, JUNE 20th

Prior to the IKC Quarterly Meeting in Bloomington on Saturday, June 20th, the IKC will be working on the Hancock property (off of Spicer Lane), starting at 1 PM (we will finish up around 5 PM). There are no specific known tasks needing attention other than our usual activities which include walking all the trails to collect trash, replacing as needed "No Trespassing" signs on the trail to Salamander, and performing whatever other maintenance needs to be done. Grotto Cave will most likely be open and available for those wishing to make a quick trip into this cave.

Anyone needing more information or directions, please contact Keith Dunlap.

NEWS BRIEFS...

- ❑ The March elections yielded four new Directors onto the Board: Steve Lockwood, Bob Vandeventer, Richard Vernier, and Kathy Welling. In addition, James Adams, Bruce Bowman, Keith Dunlap, Tom Rea, Bob Sergesketter, and Bill Tozer were re-elected to their respective positions (see page 2 for the complete list of Board members). Retiring from the Board were Larry Bundy (1994-98), Larry Mullins (1993-98), Eric Schmidt (1991-98), and Clyde Simerman (1996-98). The IKC wishes to thank these outgoing Directors for their many years of service and dedication.
- ❑ The IKC's internet web site now has a new address hosted on the NSS's web server. Our home page is now located at <http://www.caves.org/conservancy/ikc>. If you haven't been to our web site, or haven't been there recently, it's worth a visit as new information is being added all the time. Recent additions include the Sullivan Cave Management Plan, the Sullivan Cave fund-raising pages and donor list, an on-line auction, the new DNR cave permit system, the new DNR oil & gas drilling policy for karst areas, and downloadable cave waivers for the caves the IKC manages.
- ❑ Speaking of web sites, the Department of Defense has created an interesting web site for the Jefferson Proving Ground including pages on its history, the base closure, proposed re-uses, USFWS interim management, and other environmental information. The web address is <http://www.jpg.army.mil>.

- ❑ Over the past eight years, the Indiana DNR and the IKC have been monitoring Coon, Grotto, and Jim Ray's caves for winter disturbances in these critical *Myotis sodalis* hibernacula. This monitoring is done passively with electronic "speloggers" which are installed in these caves and record the date and time of each human disturbance (triggered by light). The information collected is providing a means to determine the effectiveness (or ineffectiveness) of our closure methods in discouraging unauthorized entry. This past year saw no unauthorized entries in Grotto Cave and only one each in Coon and Ray's. While this is slightly higher than last year, it's still a significant improvement compared to the years prior to the installation of better signage and other deterrent equipment by the DNR.

Winter	Number of Disturbances		
	Jim Ray's	Coon	Grotto
97 / 98	1	1	0
96 / 97	0 ⁽¹⁾	0 ⁽¹⁾	0 ⁽¹⁾
95 / 96	3	9	4
94 / 95	8 ⁽¹⁾	8 ⁽¹⁾	5 ⁽¹⁾⁽²⁾
93 / 94	-- ⁽³⁾	-- ⁽³⁾	-- ⁽³⁾
92 / 93	7 ⁽¹⁾	3 ⁽¹⁾	8 ⁽¹⁾
91 / 92	6	1	5
90 / 91	4 ⁽¹⁾	8 ⁽¹⁾	n/a

1) Excludes one visit for biennial bat census
 2) Spelogger failed on day 182 of 227 days
 3) Data loss due to faulty batteries

- ❑ On May 16th, the IKC's Forest Cave Committee met with the HNF Strategy Team (the Forest Supervisor and District Rangers) to discuss the progress of the ongoing cave inventorying. To date, one cave has gone completely through the process with a management plan written, 19 caves have been inventoried and are awaiting management plans, 14 caves have had the advanced work (GPS locating, surface hydrology, etc) done and are awaiting inventorying, 32 caves are awaiting the advanced work, and approximately 32 caves require more information just to verify they actually exist on HNF land.

Of greatest significance at this meeting, the *first* cave management plan (Dillon Cave) received final approval and was signed (see photo on page 7) by Ken Day (Forest Supervisor), Jim Denoncour (District Ranger), Bruce Bowman (IKC President), and Steve Lockwood (Forest Committee Chairman). Eventually, all the caves will have approved management plans which will prescribe unique long term protection for each.



- On May 9th, eighteen caver volunteers participated in a Take Pride In America workday at Wesley Chapel Gulf. Sponsored by the Hoosier National Forest, the WCG project consisted of removing about a half-mile of fence row from the interior of this property and re-constructing about 600 feet of fence along one of the property lines to keep an adjacent land owner's cattle from illegally grazing on HNF property. Participants included Bob Armstrong, Ted Bice, Mike Bieberich, Mark Deebel, Bruce Devore, Keith Dunlap, Raul Khalid, Nick Noe, Kriste Lindberg, Steve Lockwood, Tom Rea, Tom Sollman, Trae Spires, Renée VanVeld, Richard Vernier, Sue Vernier, Angie Waldrop, and Kathy Welling. HNF employees assisting the volunteers were Dave Hanson, Dale Weigel, and Kelly Weigel.

The WCG property was acquired by the HNF about a year ago and the short term plans were to remove all the structures on the property and restore the approximately 200-acre tract to a more natural condition. For the longer-term, the IKC will be intimately involved in the development of the property's management strategy, balancing educational/recreational access with the desire to protect this important geologic resource.

- Dr Julian Lewis is conducting an extensive study of the cave biota in the Corydon area (Harrison County). Part of that study includes the sampling of cave water (mostly in Binkley Cave) for coliform and nitrate pollutants. His original research funding (from The Nature Conservancy and the US Fish & Wildlife Service) covered only limited water sampling, but as the project progressed, it became evident to him that additional water sampling would be very beneficial to quantify the pollutants entering Binkley at each tributary. In March, Dr Lewis approached the IKC to request a grant to expand his research. The IKC approved \$200 which was matched by three IKC members for a total of \$800 which will fund approximately 30 to 40 additional samplings. The hope is to pinpoint sources of current pollutants and to form a baseline database to allow comparative sampling in the future. Preliminary results from the first round of testing was not good, with many readings showing high nitrate and coliform levels. Additional testing is planned and a formal report will be issued when the project is completed.
- On March 31st, an order to reverse the issuance of an Indiana Department of Environmental Management permit was granted. The permit was for a proposed 4,800 sow breeding operation near the town of Deputy in southern Indiana. The hog operation was to be situated in a highly karst area where two 30-million gallon manure lagoons were to be constructed. The argument against the hog operation was that the water quality of the town's residents could be severely compromised. Originally, IDEM issued the permit and a subsequent lawsuit appeal of the decision was also unsuccessful. But the town stood firm and pursued their legal rights and ultimately got the permit revoked.

On this same topic, the *Indianapolis Star* recently printed a four-part series on the growing problems associated with these mega-livestock farms. Indiana is just one of several states facing pollution problems from these operations. Many states have implemented much stronger pollution regulations to combat the concerns and the EPA is looking at new regulations at a federal level. One thing is for certain, these mega-farms in karst areas are bad news.

- Progress is continuing on the Crane Karst Project on the Crane Navy Depot (Lawrence and Martin counties). The goal of the project is to locate and document all the caves on the Depot. Since September, all known caves, reported caves, and reported leads have been checked. Most of the information came from two previous studies done in the 1960's and 1980's. Many of the reported "caves" have turned out to be sandstone shelters. Others turned out to be caves, but were often mislocated (some up to 1/4 mile). At this point, the project is re-surveying all the verified caves which is expected to take another year to complete, working one day per month. The primary participants for the Crane Karst Project are Ray Sheldon, Bruce Trotter, Jerry Walker, Keith Dunlap, and Kevin Wools.

- ❑ The IKC educational table display made it's annual trip to Indy's Earth Day celebration on May 25th. Thanks goes to Nick Noe and Bob Vandeventer for sharing the responsibilities. Also Bob Armstrong used the Display on May 16th at Bloomington's Environmental Fair held appropriately at Karst Farm park on Bloomington's west side.
- ❑ The cave rescue emergency number for Indiana has changed to 1-812-351-0781. This new number supports an enhanced pager system which should provide a faster response. In case of a cave emergency, call the pager number and punch-in a number where you can be called. In a few minutes someone will call you back for all the details. It is suggested you carry this number in your cave pack and/or keep it handy in your car.
- ❑ Back by popular demand, the IKC has re-ordered hats with our 4-color embroidered IKC logo. The baseball-type caps are in two styles and slightly upscaled from our previous offering. The first style is a "natural" (off-white) canvas with a dark green bill. The second style is a tan-ish pre-washed denim with a tan-ish bill. Both have leather adjustor straps with brass-plated buckles. These hats are really sharp! The price of these hats are \$10, plus \$2 shipping. Send your orders to PO Box 2401, Indianapolis, IN 46206. Please specify your desired style.
- ❑ General/unrestricted donations to the IKC allow the funding of projects beyond the basic membership services (this newsletter, etc) and our traditional conservation/management responsibilities. Since December, we have received a number of donations totaling over \$1000 that will be used to support such projects as Dr Lewis's water sampling project and our special reprint series. A special thanks to Blue Spring Caverns, Bruce Bowman, George Brutchen, Barb Capocy, George Cesnik, John Danovich, Bruce Devore, Keith Dunlap, Bambi Erwin, Hank Huffman, Robert Masta, Jon Miller, Nick Noe, Robert Roundy, Gordon Smith, Tom Sollman, Susan Strickland, and Stan Weinzapfel.



Signing ceremony of the first HNF cave management plan. From left to right: Jim Denoncour (HNF District Ranger), Steve Lockwood (HNF Committee Chairman), Bruce Bowman (IKC President), and Ken Day (HNF Forest Supervisor).

Photo by Ellen Jacquart

LANGDONS CAVE VANDAL PROSECUTED

by Aaron Atz

As many of you may recall from the article published in the last *IKC Update*, on November 23, 1997 I personally witnessed Robert Grant, 20, of Marengo, and several others vandalize and remove cave formations and kill several bats in Langdons Cave in the Harrison-Crawford State Forest. The bats were later identified as little browns, a non-threatened species of bat.

Several days later Grant was arrested by two conservation officers who obtained a warrant based on information provided by myself. The other individuals who participated in the vandalism were not cited or arrested because they did not confess to their participation, as Grant did. Grant did seem to be the main vandal (for what that is worth).

After much publicity in the local press, email forums, and internet sites (such as the NSS conservation web page), many cavers from all over heard of the case and were calling for a prosecution. I personally received supportive phone calls from as far away as New Mexico and numerous emails from all over the world, one from as far away as Cape Town, South Africa.

Grant plead guilty on Monday, May 18 to at least one of the charges and was sen-

tenced to serve five weekends in the Harrison County jail, 40 hours of community service, and one year of probation.

This is only the second major prosecutions for cave vandalism in Indiana [*ed - the first prosecution was also the result of IKC members reporting the incident*]. In my opinion, the overwhelming consensus of the cavers I have communicated with supported the prosecution of the case and were supportive of the notoriety the case generated, as the publicity should act as a positive deterrent to possibly prevent future vandalism cases and to encourage cavers who witness such acts to report them to the proper authorities.

Thanks for your support. Please never hesitate to report vandalism and fight ignorance.

[Editor's note: Aaron is an IKC member and was instrumental in this case. Not only was he the key witness, but he also had to "educate" the law enforcement agencies to pursue the arrest and then lobby the prosecutor's office to follow through with the prosecution. In the end, the offender got more than just a slap on the wrist and hopefully will serve as an example for the future.]

ONLINE AUCTION BENEFITS SULLIVAN FUND

by James Adams

Several items of interest to cavers have been donated to the IKC Sullivan Cave acquisition fund. Using the World Wide Web, an online auction is underway and the items are now up for bidding. The online auction can be found from the IKC's home page or directly by turning your browser to <http://www.caves.org/conservancy/ikc/auction.htm>.

For each item, you will find a description of the item, two photos, the current bid, and a bid closing date. To get a closer view of any item, click on any of the images shown. If you have questions about any of the items in the auction, please feel free to send email to Jim Adams at IKCauction@aol.com.

Four items have been initially added to

the auction including a brass compass, a Justrite carbide hand lamp, an unfired Guy's Dropper carbide cap lamp, and an Auto-Lite carbide cap lamp and original box.

If you have any collectible items that you would like to donate to the Sullivan Fund, please contact any officer or send email to Jim Adams. We can keep the auction going as long as we have something to bid on and a cause to raise money for.

Remember, although these items do have a market value as well as a perceived value from a collector's standpoint, it's important to keep in mind that you are helping to preserve Sullivan Cave for future generations of cavers to enjoy. *Bid high and bid often.*

UNDER EARTH DAY AT SULLIVAN CAVE

by Keith Dunlap

On April 19th, approximately fifty volunteers gathered to work at Sullivan Cave. In year's past, the concentration for Under Earth Day has mostly been in the cave doing restoration work. This year, however, with the IKC's increased responsibility for the stewardship of the property surrounding Sullivan, much of the effort focused on above-ground projects.

The day started out a little nebulous on what exactly we wanted to do with the trail from SR54 down to the cave entrance, but soon several people empowered themselves and things got rolling. Basically, the first 100 feet or so of the trail from the road was rebuilt with waterbars (landscaping timbers) pinned with rebar. Flat stones and gravel from the creek bed were used to harden the trail. Further down the trail, we actually relocated a section to improve its gradability and erosion tolerance. In several places, we lined the trail with downed logs and rocks to better delineate where you are supposed to walk (in the past the woods has suffered from multiple trails). All the old trails were made impassable with brush. Several water diversion projects were also done to keep water off the trail and to manage the water coming off SR54 (this may require additional work in the future). By the end of the day, one would have thought we were in a state park (not sure we want to be to that standard, but we can try to be less enthusiastic in the future).

The trail just above the cave to the clearing also got some major attention. A section of about 30 feet was rebuilt and hardened to eliminate the big erosion rut that had formed over the last several years.

Other above ground projects included paint-

ing the property boundary posts, demolishing the old privy, demolishing an old concrete base of the rusted out grill, cleaning out the road ditch, and mowing the camping area/clearing. Several of our neighbors stopped over to see what we were doing and introduce themselves. Many of the volunteers got to explore the springtime woods, and even find a few mushrooms.

Approximately twenty people also made it into the cave. Some just touring after working the morning on the trails, while others removed graffiti in the Mountain Room.

The weather was exceptional and everyone really seemed to really enjoy themselves despite the hard work. While past IKC projects have always been fun and rewarding, I think this one was much more meaningful in knowing that all the effort is going towards something we will soon own and have full responsibility to manage and protect.

Participants included Joshua Abdulla, Jim Adams, Ted Bice, Jeffrey Boudreau, Bruce Bowman, Gary Casady, Amanda Clark, Bob Decker, Mark Deebel, Bruce Devore, Keith Dunlap, Allyson Eidson, Bambi Erwin, Allen Hutchison, Greg Hunt, Jim Johnson, Andy Jordan, Andy Jump, Glenn Kotnik, Haley Kotnik, Kriste Lindberg, Steve Lockwood, Bryan McGill, Bryan Meyers, Ian Murano, Jerry Murray, Brandi Pace, Linda Palla, Jeanne Raty, Tom Rea, Courtney Sampson, Mike Sampson, Bob Sergesketter, Ray Sheldon, Tom Sollman, Trae Spires, Lori Spires, Bill Tozer, Bruce Trotter, Greg Tucker, Wayne Tucker, Bob Vandeventer, Richard Vernier, Stan Weinzapfel, Barry Welling, Kathy Welling, and Kent Wilson.

Volunteers working on the trail from SR 54, adding water bars and a water diversion ditch.

Photo by Bruce Bowman





Trail from SR 54 before (upper left, looking north towards the road) and after (upper right, looking south down hill) water bars were installed. Bruce Trotter and Ray Sheldon (below) cutting re-bar used to anchor the water bars in place.

Upper photos by Bruce Trotter, lower photo by James Adams.





Reconditioned trail just above the entrance to Sullivan (upper left) leading to clearing/camping area. Deep erosion ruts had formed here over the past several years. Bob Sergesketter (upper right) having "fun" carrying rocks from the creek bed to the top of the SR 54 trail to be used for erosion control. Tom Rea (below) prepares for water bar installation. Upper left photo by Bruce Trotter, others by James Adams.



SULLIVAN CAVE ACQUISITION FUND

by Keith Dunlap

As Bruce Bowman indicated in his President's column, The IKC's fund raising activities for the purchase of Sullivan Cave is over the halfway point, but we still have a long way to go. The IKC membership has thus far responded quite favorably, but if you haven't made a contribution yet (or would like to increase your donation), it definitely is not too late to mail in a check or pledge. The list of individual donors have topped the one hundred mark and over two dozen grottos and other organizations have shown their support. We wish to thank each donor listed here...these are the cavers/organizations that are making the acquisition of Sullivan Cave happen.

DONATION LIST
\$5,000 or more
Central Indiana Grotto
National Speleological Society
\$1,000 to \$4,999
Dick Blenz
Bruce Bowman
Keith Dunlap
Evansville Metro Grotto
Jeff Farr
Greater Cincinnati Grotto
Kriste Lindberg
Steve Lockwood
Larry Reece
Richmond Area Speleological Society
Tom Sollman
Bill Tozer
Dick & Sue Vernier
\$250 to \$999
Robert Armstrong
George Brutchen
The Cleveland Grotto
Mark Deebel
Samuel Frushour
Harrison-Crawford Grotto
Steve McKenzie
Jane Miller
Lynn Miller
1997 Fall MVOR
Donald Peters
Bob & Phyllis Sergesketter
Southeastern Cave Conservancy
Bruce Trotter
\$100 to \$249
Bloomington Indiana Grotto
Bruce Barnes
Rane Curl
Bruce & Deb Devore
Scott & Jaime Fee
Joe Gasperi
William Halliday
Tem Hornaday
Glenn Kotnik
Daniel Lucas
Bob Masta
Mid-Hoosier Grotto
Nick Noe
Northern Indiana Grotto
Paha Sapa Grotto
Ernie Payne
Everett Pulliam
Robert Roundy
Don & June Shofstall
St Joseph Valley Grotto
Kevin Strunk
Stan Weinzapfel
Norbert Welsh
Windy City Grotto
Kevin Wools

\$50 to \$99
Tom Ahlers
Ted Bice
The Boehler Family
Carl Brown
Larry & Linda Bundy
Keith Calkins
Dale Chase
Martin Church
Dayton Underground Grotto
Meramec Valley Grotto
MSM Spelunker's Club
Near Normal Grotto
Richard Newton
Walter Pirie
Tom Rea
Charles Rex
Gregory Stamp
Bob Vandeventer
Rich Whisler
\$5 to \$49
James Adler
James Braswell
Danielle Burden
Barb Capocy
Jeff Cobb
Jeff Cody
Tony Cunningham
Ron Dowell
Bambi Erwin
Bruce Foyer
Frederick Grotto
Ted Frost
Matt Gibson
Dave Haun
James Helmbold
Tim Heppner
Robert Jarboe
Kate Johnson
John Koch
Thomas Liddle
Mark Twain Grotto
Dan McDowell
Jon Miller
Our Lady of Consolation
Theresa Peterson
Jan Pursley
Steve Ragsdale
Kevin Rasmus
Rusty Riley
Susan & Dave Strickland
Tri-State Grotto
Western Indiana Grotto
John Wilkerson
James Wright
Pledges
Danielle Burden
Keith Calkins
Chris Carpenter
Tony Cunningham
Larry Mullins
Tom Rea
Bob Sergesketter
Bruce Trotter
Bob Vandeventer
Virginia Karstlands Trust
Kathy Welling
Rich Whisler
Dean Wiseman
Last updated: 06/06/98
Donations collected: \$35,685
Donations pledged: \$7,460
Donations total: \$43,145

SULLIVAN CAVE AND PROPERTY MANAGEMENT PLAN

LAWRENCE COUNTY, INDIANA

[Editor's note: The following management plan was approved by the IKC Board at the March 28th meeting and will become effective once the Sullivan property is transferred to the IKC. This plan is not set in concrete, and will be somewhat dynamic with refinements made on an as needed basis.]

INTRODUCTION: The Indiana Karst Conservancy, Inc. purchased the 27-acre Sullivan Cave property. The Conservancy will manage Sullivan Cave so that it will be available for recreation and scientific study by responsible cavers, while at the same time protecting the cave for future generations of cavers. The surface property will be managed to enhance the overall natural setting.

HISTORY OF THE CAVE: The 40-foot section of Sullivan Cave from the entrance to the Waterfall Room and some of the crevice passage in that area has been known to explorers since the 1840s. The discovery of the Backbreaker passage in 1952 brought the cave to the attention of cavers of the time.

Art Davis, a member of the newly formed Central Indiana Grotto, took an interest in Sullivan cave in 1956. His first trip to Sullivan Cave was on January 22, 1956. At that time the known part of Sullivan Cave consisted of the Backbreaker Passage and the three branches of the Water Room Passage. The ceiling drips in the Water Room were the only known water in the cave (other than at the entrance). The Popcorn Connection to the lower level was unknown (The crawl hole into the Water Room is now blocked by a ceiling collapse in the room). Art was sure the cave must contain an active stream. He decided to check every possibility between the entrance and the "end" of the cave.

On May 5, 1956, Davis and John Danner discovered the Mountain Room. The discovery passage is a small crawl under the ledge, about 30 feet toward the entrance from the present crawlway. The present passage to the Mountain Room was dug after the discovery. On December 29, 1956, Davis and Ruben Vig discovered the Quarry Room.

In August 1962 a group of seven cavers, led by Mike Wischmeyer, a teenage member of the Central Indiana Grotto, spent two

weeks in Sullivan Cave. The group's main objective was to complete surveying of the cave. They surveyed 5,588 feet of passage and discovered about 2,000 feet of new passage. Exploring north of the Quarry Room they surveyed a side passage believing it to be the main passage. They noticed the main passage but, thinking it was a side passage, did not explore it.

Four months later, Wischmeyer, along with Leigh Lawton, Sam Frushour, and Ron Pflum checked out this side passage and discovered the Beyond-the-Beyond section consisting of 8,000 feet of passage and eight large rooms.

The second Sullivan Cave expedition was organized for August 1963 with the objective of exploring and mapping the Beyond-the-Beyond. This time a group, again led by Wischmeyer, spent three weeks isolated in Sullivan Cave.

Sullivan Cave has been a well known and popular cave since the 1960s. Vandalism has always been a problem and one of the objectives of the two expeditions was to clean graffiti off the cave walls. The discovery of spray paint by the vandals in the 1970s made the problem much worse. By the late 1980s the owner of the cave was tiring of all the traffic and noise. In January 1990, in order to help protect the cave and to persuade the owner to let the cave remain open to cavers, the Central Indiana Grotto placed a stout gate, designed by Keith Dunlap, on Sullivan Cave's main entrance.

In the summer of 1997, Sullivan Cave's owner indicated the property would be put up for sale. The sale of a large, popular cave is always an emergency for the caving community. Anything can happen with a new owner, and the fear is that it will not be good for cavers. Two Indiana Karst Conservancy members, Keith Dunlap and Bob Decker, purchased the cave, then offered it to the Indiana Karst Conservancy. In December 1997 the Board of Directors of the Conservancy voted to purchase the cave and to begin a fund raising drive. The transfer of the property to the Indiana Karst Conservancy occurred on _____, 1998.

SUBSURFACE RESOURCES: Sullivan Cave is the third longest cave in Indiana



with 9.63 miles of mapped passage. The cave is developed in the Ste. Genevieve Limestone of the Crawford Upland. Entry into the cave is a series of climb downs to the waterfall room. A passage to the right connects with the famous Backbreaker, a long low passage. The Backbreaker passage to the right leads to the Lost Dome area. To the left the passage goes to the main part of the cave. The passage becomes higher as you approach the "T". To the right is the Merry-go-round, a circular canyon passage. To the left is the main portion of the cave. A low crawl off the back breaker leads to the Mountain Room, some 60 feet high and 100 feet across. The flood route of the Sullivan River is reached here. Downstream leads to the South "Y" and the Sullivan River. The river passage is 15 to 20 feet high. Upstream the passage ends at breakdown. Downstream leads to Armstrong's Folly, a dig through clay fill, and the Spiral Room. A crawl from the Spiral Room leads around a breakdown blockage of the Sullivan River and out Speed Spring.

Upstream from the Mountain Room leads to the North "Y", the Quarry Room and Beyond-the-Beyond. Continuing upstream from the Quarry Room is the deep water and a 70 foot bathtub with 6 inches of air space. Beyond the bathtub is the Coliseum and the Colossus, the largest room in Sullivan Cave. The Colossus is 120 feet high and 200 feet long. There are eight rooms in this section of the cave. The passage upstream ends in a sump with a good flow of water, suggesting the cave extends onward if only a bypass could be found. The north section is a difficult trip even if the route is known.

Biological life in the cave consists of a small bat population, cave crayfish, salamanders, isopods, amphipods, and beetles. The famous Sullivan cavefish is a sculpin entering from the surface. They and a few surface crawfish can be found in the Sullivan River from the South "Y" to Speed Spring.

SUBSURFACE MANAGEMENT: Sullivan Cave 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/expansion of the cave is prohibited without approval of the IKC board.

Cave restoration (other than trash removal) is limited to IKC sponsored trips. The purpose is to keep all restoration prac-

tices consistent with IKC approved practices.

Due to the concern about the impact of food, cooking, elimination, and the like., no camping will be allowed in the cave.

ACCESS POLICY: The cave is open to organized, responsible cavers. Those wishing to visit Sullivan Cave should contact the Cave Patron to obtain a permit. All persons entering the cave will be asked to sign a liability release, follow surface and subsurface rules established by the IKC, and agree to protect the cave's natural resources. The cave patron can authorize or deny ordinary cave trips. Trips with some extraordinary purpose require IKC board approval.

All trips must have an approved leader. An approved leader is someone who practices conservation and safe caving as generally defined by the IKC and has first hand knowledge of the cave. The cave patron will determine if the caving group leader meets the requirement of an approved leader. There will be an approved leader for each 12 cavers in the group. There must be an adult of the immediate family for every child under the age of 12.

There is no limit on the total number of cavers in the cave at this time. Experience may show that a maximum number should be established in the future.

Prior to the trip, the trip leader will receive a liability waiver/information form and the visitation rules to be followed while on the property. Participants under 18 years of age must have a parent/guardian signature on the liability waiver/information form. The trip leader will also receive a Letter of Permission which will act as a parking permit and serve to verify that the group has received authorization to visit the property. Each vehicle is required to prominently display a signed copy of this Letter of Permission while on the property.

The trip leader will be responsible for having each participant read and sign a copy of the liability waiver/information form, then return the waivers to the patron before the trip. The trip leader will also inform all the participants of the visitation rules before entering the property. The rules will cover the maximum number of participants per trip, where to park, appropriate precautions while changing clothes before and after the trip, the rules to assure a low profile, the specific path to take from the parking area to

the cave, precautions related to the weather, and information pertaining to emergencies. Any improper behavior reported to the patron may result in those persons or the grotto being barred from future visits.

Organizations such as the Boy Scouts are expected to comply with their internal rules in addition to the policies outlined by the IKC.

Monetary compensation of the trip leader (cave-for-fee) is strictly prohibited.

The release forms will be kept on file and will not be required each time the cave is visited. The patron will maintain a log of trips and visitors to the cave to assess visitation impact on the resource.

The Conservancy will vigorously prosecute any violations of the Indiana Cave Resource Protection Act, IC 35-43-1-3, or any other vandalism on the property.

SURFACE RESOURCES: The property consists of 27.5 acres of mostly wooded terrain. The property is roughly 850 feet wide (east-west) and 1,400 feet long (north-south) with a notch cut out of the northwest corner of the tract. The property is bounded by SR 54 along its northern border which provides access to the property. The cave entrance is located very near the eastern border and all the known underlying passages are confined to the eastern half of the property.

Approximately 20 acres of the property can be considered mature forest, although the quality of the trees are better towards the east side of the property. There is a small clearing (approximately 1 acre) in the middle of the property, just west of the cave entrance (hereafter referred to as the "central" clearing), another small clearing (approximately 1 acre) on the western side of the property just south of the notch, and several acres of recently pastured land on top of the ridge towards the southern end on the property. The property has over 130' feet of relief from the ridge top (820 feet ASL) down to the ravine near the cave entrance (690 feet). There are several rocky, wet-weather streams of interest and a sometimes active spring.

SURFACE MANAGEMENT: Little active management of surface resources will be performed. The forested areas will not be modified and no trees will be cut other than for safety considerations or existing road/trail access. The western clearing and ridge-

top clearing will be allowed to grow up. Tree planting in these two areas to encourage reforestation may be desirable. The central clearing will be maintained by occasional mowing and may serve as a parking and camping area. This area is poorly drained and is often soft during winter/spring, so vehicle traffic should be avoided during these times. The vehicle lane into this clearing is also marginal and will either need further hardening or seasonal closing.

Due to the subdividing/sell-off of the 2.5 acre tract at the northwest corner of the property, no permanent access to the lane is available. To address this problem, a short segment of a new driveway from SR 54 will need to be constructed (an InDOT permit has been obtained). Furthermore, a small parking area near the current lane gate may be desirable. Decorative pines or similar landscape hedges/bushes to visually shield the parking area from the adjacent property owner will be considered.

In the short term, if parking is to continue along SR 54, the trail from the existing parking spot to the cave entrance needs to be upgraded with water bars and other improvements to control erosion. This parking area and trail may need to be maintained as an overflow when the other parking areas are full or soft. The short trail from the cave entrance up the hill to the central clearing will also need erosion control bars and other maintenance.

No other permanent trails exist on the property and currently no other trails are planned. While there is the opportunity for a nice nature trail on the property, maintenance, labor, and related expenses for such a trail outweighs the perceived benefits at this time.

There is an open structure on the east side of the central clearing. This structure will be retained and possibly upgraded as a privacy room for changing clothes before and after cave trips. There is also an old privy in this same clearing that will be dismantled and the hole appropriately filled.

There are several locations on the property where trash has been improperly disposed. These will be located and the trash removed. There is also an old trailer on the edge of the woods in the western clearing. This trailer will also be dismantled and disposed of properly.



The corners of the property are currently marked with steel posts. These posts will be maintained for easy locating of the property boundaries.

Existing "no trespassing" signs along SR 54 will be retained, but additional signs will not be erected unless problems arise. An informational sign/kiosk will be erected on the property (probably at the lane gate) to explain ownership, access, and display the list of donors who helped purchase the property. Specific references to the cave will not be included on this sign to avoid attracting the curious.

The trail gate on SR 54 and the lane gate will be maintained and kept locked. Keys will be provided to cavers and campers, as appropriate.

Collecting on the property is prohibited with the exception of mushrooms, berries, and nuts. Hunting is also prohibited (with the possible exception of adjacent landowners). The discharging of firearms, fireworks, or other explosive devices will not be allowed. Digging or other surface modifications are prohibited.

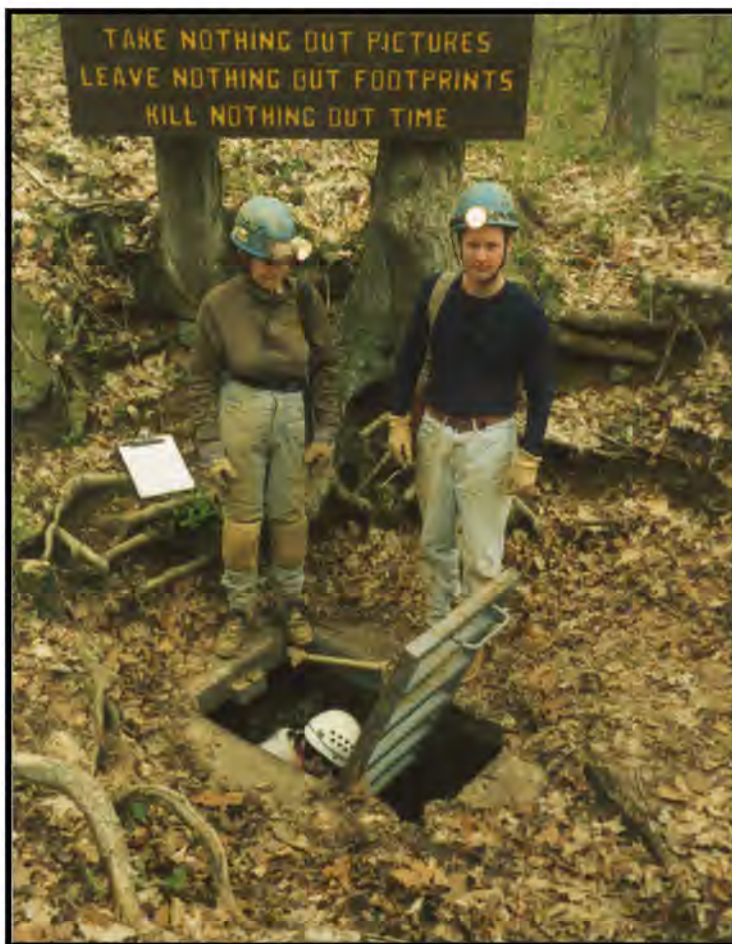
SURFACE ACCESS: Walk-in access to property by the public is neither encouraged nor discouraged. Permission to hike on the property is not required. However, other surface activities require permission and coordination through the management committee/cave patron.

Camping on the property is allowed, but highly restricted. Currently, camping privileges are granted to individual IKC members and their accompanying guests. The behavioral expectations of those camping on the property is that the campers are quiet, low profile, and subdued (i.e., this is not a place to "party"). To promote seclusion and solitude, only one group at a time will generally be granted permission. Camping is arranged through the management committee/cave patron. Camping is restricted to designated areas in the central clearing, contingent upon ground conditions. Campfires are only allowed in designated fire rings. Firewood may not be collected from the property. All trash must be packed out.

Expanded camping for special IKC work projects (on property or in the area) is allowed.

Cavers waiting to enter Sullivan Cave during Under Earth Day.

Photo by James Adams.



1998 INDIANA CAVE SYMPOSIUM

by David Black

The 1998 Indiana Cave Symposium was held in Milltown, Indiana on April 25th. Thanks to the kind offer of the owners of Cave Country Canoe, Gary Roberson and Gordon Smith, the talks were given in a church building that is used as a bunkhouse for the canoe rental business. The bunkhouse again proved to be the best place so far for the talks. It was large with plenty of seating and of course had electricity. Prior to the symposium, the pitch-in hot dog "banquet" was held at the campground, owned by Cave Country Canoes. Anyone wanting to camp there after the talks was allowed to at no charge. Also, thanks should be given to the Central Indian Grotto and Richard Newton for providing large projector screens. The dual screens really helped, one screen was set up for slides and the other one for overheads. The CIG provided the slide projector and Jim Adams provided the overhead projector.

This year there were seven talks. The talks were on a wide range of topics such as history, biology, cave inventory, exploration, and the new state cave policy. David Black introduced each speaker.

Bill Tozer was the first speaker. He is the chairman of the IKC committee heading up the acquisition of Sullivan Cave. Since most of the people attending the Symposium has already donated money, he did not talk about the on-going fund raising. Instead he talked about the history of Sullivan Cave. He divided the history into three main periods. The first was the exploration period from the late 1950's to the mid-1960's. During this period members of the CIG pushed the backbreaker to find most of the cave and then pushed the main river passage downstream to the spring and upstream to the final sump. The next period was in the 1970's when the liberal access policy of the owner allowed just about anyone to go into the cave. This was the period of extensive vandalism and abuse. The last period was from the late 1980's to present when a gate was installed on the cave by the CIG and access was restricted to cavers with the knowledge and skills to properly visit the cave. This was also the period of extensive cave restoration. By telling the history of Sullivan Cave, Bill showed why everyone should support the acquisition of the cave by

the IKC to protect this valuable resource.

Dr. Jerry Lewis, who is currently involved in the Nature Conservancy's Blue River Project, gave an account of the biological inventory he is conducting in Indiana. This past year his study area has been expanded from the Blue River drainage basin north to the Lost River drainage basin. He showed how his biological inventorying is conducted and what types of life can be found. It is really surprising what can be found in a pile of leaves in the bottom of a pit, or in a small drip pool below a stalagmite. Jerry has found several new species of cave life. It is hoped that his biological inventorying will be useful in the future to protect the caves and karst in Indiana. Jerry will probably be remembered most for his humorous slide show of caving in Indiana, and the ransom notes that he found next to his bug traps in Wyandotte Cave.

Kriste Lindberg gave a status update on the IKC cave inventorying project on the Hoosier National Forest. During the past couple of years, the project had numerous work weekends where teams using GPS units have located known caves and found new caves. These teams then fill out reports listing the cave resources. At a later date a second team visits the cave and evaluates these resources. Using this data, a cave specific management plan can then be written for the cave.

Ray Sheldon presented his first update on the survey and inventorying of the caves at the Crane Naval Depot. Located southwest of Bedford Indiana, this Department of Defense facility covers nearly 100 square miles of sandstone capped ridges and limestone floored valleys. In early 1997, after gaining special clearance for this project, Ray and Bruce Trotter and others began the cave and karst inventory which will eventually include the re-surveying of all known caves on the depot.

Jeff Cummings of the Harrison Crawford State Forest gave a talk on the new state-owned cave policy. He covered why a policy is needed, what it would do to protect caves and karst in the DNR owned properties, and how it would effect the cavers. One of the main reasons that the state decided to have a cave policy was because of several cave ac-



cidents that occurred on state-owned property. The policy has a section on cave rescues and how the NCRC and local cavers should be called upon to assist with the rescue. Also, since the DNR now recognizes caves and karst, it has become a resource that needs to be managed and protected. The main issue with cavers was the permit system. Basically, a person needs to check in and obtain a permit before going caving. The question and answer period after this talk was very interesting, to say the least.

Mark Deebel gave an update on the Wesley Chapel Gulf cave survey project that the members of the St Joseph Valley Grotto has been conducting. Mark showed slides of the caves, and cave maps of both Elrod Cave and Wesley Chapel Gulf Cave. The high water this winter and spring have hampered explo-

ration in this flood prone system.

David Black was the last speaker. He gave a talk on the exploration of Qualkinbush Cave System. This cave system consisted of Qualkinbush Cave and Echo Spring Cave. These two caves were connected in 1997 by cave divers. The divers also extended the downstream section of the system about half a mile through six sumps. This was one of the first times in Indiana where dry cavers and cave divers combined forces to explore and map a cave in Indiana.

I would say the sixth annual Indiana Cave Symposium was a success. Several of the fifty-plus people have told me that they enjoyed this year's Symposium. Thanks are given to the people who attended and especially to those who presented. It was a long night but one full of excellent presentations.

GUEST EDITORIAL - CAVING IN THE FUTURE

by Don Ingle

This is probably not going to surprise anyone in the least, but I believe that we are living in a litigious society. One cannot possibly watch the news on TV or read the newspaper with any regularity without becoming aware of that fact. Everybody seems to have a lawsuit pending and a great deal of them seem to be downright frivolous in nature. And if you are becoming increasingly aware of this trend you can be sure that every cave owner is making a similar observation, albeit one with a more paranoid slant. And who can blame them? Now, not only do they have to worry whether or not this particular group of cavers are competent enough to find the exit without killing themselves in the process, but now they also have to worry about one of the cavers relatives hiring some high powered attorney to take them for every penny they have after they've allowed them entry. This is a very real concern for them, and believe it or not, for us as well because eventually it may result in the closure of another cave. And in the state of Indiana, where most of the caves are on private land, this prospect looms even larger and becomes difficult to ignore.

The owners deal with their legal concerns

in different ways. Some just refuse any entry at all. Others allow an "unofficial" entry. They allow you to go in unless you get trapped or injured, in which case you were trespassing. Others turn to grottos or other organizations to act as caretakers for their caves or to have them gate their caves to prevent unauthorized entry. But as time goes by, one thing becomes apparent, fewer and fewer caves are available for visitation with no strings attached. The days where caving is done without any advance notice being given, or preparation being made, are pretty much over. And this may not be such a bad thing. To be sure it is an added inconvenience, but for every opportunity we face where we demonstrate good will and responsibility in dealing with these obstacles, we gain a little goodwill toward legitimate cavers. Resisting these changes only result in validating their negative concerns about cavers and caving and it makes it just that more difficult for us to cave the next time.

[Editor's note: The editorial first appeared in the May issue of the Western Indiana Grotto newsletter. Don is their Chairman and a member of the IKC.]

UPDATE: GAS DRILLING IN KARST AREAS

by Bruce Bowman

The Indiana Department of Natural Resources Division of Oil and Gas has received approval for a new policy for gas drilling practices in karst areas. As noted in previous articles in the *IKC Update*, there has been an increased interest in exploratory drilling into the New Albany Shale in southern Indiana. This gas-bearing formation underlies the Mississippian limestones of the Blue River and Sanders Groups, in which most of the Indiana karst is formed. This document was drafted based on concerns expressed by the IKC nearly three years ago. Before the IKC made their request, the Indiana DNR had no special policies for drilling in karst areas.

The policy is a compromise which was reached by a committee after a number of meetings. The committee members consisted of representatives from several DNR divisions, the IKC, gas-drilling interests, the Indiana Geological Survey, the Indiana Cave Survey, and private consultants. The "final" document was prepared by the Division of Oil and Gas and presented for approval to the Natural Resources Commission on April 29, 1998.

The Natural Resources Commission consists of representatives from IDEM, DNR, Indiana Academy of Sciences, and eleven other organizations with an interest in use and protection of natural resources. Providing supporting testimony for this new drilling policy were Bruce Bowman and Kevin Strunk. No one was present to give opposing testimony. The policy was approved with some amendments to address the Silurian/Devonian karst in southeast Indiana, should interest develop in the shales of the Maquoketa Group sometime in the future.

The Commission members seemed very pleased with the way the IKC approached this issue. Many in the commission have become accustomed to having environmental organizations go directly to the media when they see a problem. Going to the DNR first, and working through the issues in a manner than builds rather than burns bridges, resulted in a win-win situation. The IKC looked good, the DNR looked good, and everyone was happy (or at least everyone could live with the adopted policy).

That said, there remains much more work to be done. This policy only addresses "best practices" for the drilling operation itself. We still need to work through a nomination process for "excluded caves" and properly establish buffer zones around caves. We need to seek opportunities to share cave location information between the government, private, and non-profit sectors. Finally, we should address the potential impacts of above-ground development (pumping stations, pipelines, and the like) on karst. However, we have to start somewhere; and this policy should serve as a cornerstone on which to build a comprehensive plan.

DRILLING PROCEDURES FOR KARST PRONE AREAS

May 7, 1998

Introduction: In accordance with IC 14-37, the Division of Oil and Gas is responsible for regulating the drilling, casing, operating, plugging, and abandoning of wells and any related fluid storage to prevent waste, fresh water pollution, blowouts, cavings, seepages, fires, and unreasonably detrimental effects upon fish, wildlife, and botanical resources. Accordingly, the division has developed the following policy statement to clarify the requirements and recommendations for drilling in areas that are prone to the development of features such as caves and sink-holes.

Purpose: The purpose of this nonrule policy document is to provide supplemental protection to karst areas of the state during drilling operations regulated by the division under IC 14-37.

Nonrule Policy: The Department of Natural Resources shall classify caves that will be excluded from drilling and production activities. The procedure for establishing excluded caves shall be developed separately from this document.

No wells shall be drilled within the boundaries of any cave classified as excluded by the department. Boundaries shall be defined as the area within the known cave limits plus a reasonable buffer zone around the known cave limits. Establishment of actual limits and buffer zones for excluded caves



shall be developed separately from this document.

Information regarding the known location of cave entrances for those caves not excluded under the classification system noted in paragraphs 1 and 2 shall be used to notify permit applicants of the existence of caves in the area to be drilled. For purposes of this paragraph the location of known caves shall be limited to those caves identified in public or published works supplied to the Division of Oil and Gas from which the location of a cave entrance can be determined to be accurate to within a radius of 330 feet from the stated or plotted location.

For wells that are drilled the following shall apply: Where possible air drilling should be used. If a mud rig is used, drill with water only until casing has been set and cemented into the Borden Group for karst developed upon Mississippian aged rocks, or the Maquoketa Group for karst developed upon Devonian and Silurian aged rocks; after which a mud system may be used to complete the drilling.

The use of a tank system to contain drilling fluids is preferred. If drilling pits are used they shall be lined with an artificial liner that is impermeable to at least 1×10^{-7} md and is of sufficient strength and tear resistance to prevent a loss of fluid regardless of the substrate on which it is placed. If the proposed well location does not have sufficient unconsolidated material above the bed-rock surface to properly excavate a pit the operator shall use a tank system to contain all drilling fluids.

All drilling fluids shall be disposed of in the following manner: All filterable fluids shall be injected into an approved Class II well. Non filterable bottom liquids shall be either solidified in place using a Class A cement slurry or kiln dust, or removed and disposed of in an approved special waste landfill or removed and placed into a pit authorized for fluid storage by the Division of Oil and Gas.

Regardless of depth, all surface casing shall be set at least 30 feet into the Borden

Group for karst developed upon Mississippian aged rocks, or the Maquoketa Group for karst developed upon Devonian and Silurian aged rocks. Surface casing shall be cemented from setting depth to surface utilizing cement baskets in the string to support the cement column to minimize infiltration into karst features. The operator shall maintain a record of all casing and cementing procedures and materials, and make that record available to the division upon request. The operator shall set intermediate strings of casing through voids using the following procedure: Drill at least 30 feet past the void and set casing with a cement basket placed within 20 feet above the void. Cement shall be balanced in for the lower 30 feet of casing and tremie pipe shall be used to place cement from the basket to the surface. All strings of casing that pass through a void or lost circulation zone shall be cemented from casing setting depth back to the lost circulation zone. A basket shall be placed above the most shallow lost circulation zone and if surface circulation is not completed then cement will be placed on the basket with the use of a tremie pipe system back to surface.

At the request of the division the operator shall run a cement bond log on the production casing back to surface and submit the results of the log to the division.

In the event any casing string cement does not initially reach surface and it is necessary to use a tremie pipe system to place cement on a basket, then the production string of casing must be cemented to surface. All lost circulation zones shall be reported in the lithologic record on the Well Completion or Recompletion Report for the well.

Any person may request an exception to the drilling requirements noted above by submitting a request in writing that specifies the relief sought and includes sufficient information for the division to evaluate the request. The request will be considered at a hearing conducted under 310 IAC 7-1-12.1.

The procedures noted above are in addition to any provisions specifically required under 310 IAC 7-1 and 7-1.5.

DON'T FORGET TO RENEW YOUR DUES

INDIANA KARST CONSERVANCY TREASURY REPORT

Income/Expense Statement From January 1, 1998 to March 31, 1998

INCOME:

Dues Apportionment and Residuals	575.00	
Donations	257.00	
Interest	<u>79.07</u>	
		\$911.07

EXPENSES:

IKC Update (printing, production, mailing)	282.79	
Membership (postage, meeting notices, etc)	83.84	
Conservation/Management/Education	18.61	
Sullivan fund-raising	30.00	
Misc (state fees, banking)	<u>16.49</u>	
		(\$431.73)

NET OPERATING EXCESS (DEFICIT) THIS PERIOD: \$479.34

Balance Sheet March 31, 1998

ASSETS:

Cash in Checking Account	538.94	
Cash in Savings Account	<u>33208.50</u>	
		<u><u>\$33,747.44</u></u>

LIABILITIES & OPERATING EXCESS:

Hancock Property Maintenance Fund	182.79
Indiana DNR Nongame Fund	134.00
Sullivan Aquisition Fund	23713.31
Deferred Dues Fund: 102 members - 1998	1530.00
9 members - 1999	135.00
1 members - 2000	15.00

Previous Operating Excess	7558.00	
Net Excess (Deficit) This Period	<u>479.34</u>	
Current Operating Excess		<u>8037.34</u>

Total Liabilities & Operating Excess \$33,747.44

IKC ANNUAL MEETING MINUTES

Saturday, March 28, 1998

Greenwood, Indiana

BOARD MEMBERS PRESENT:

James Adams
Bruce Bowman
Keith Dunlap
Bambi Erwin (proxy for Dave Haun)
Kriste Lindberg
Nick Noe
Tom Rea
Larry Reece (proxy for Bruce DeVore)
Eric Schmidt (outgoing)
Robert Sergesketter
Clyde Simerman (outgoing)
Bill Tozer
Dick Vernier (proxy for Tom Sollman)

Steve Lockwood (incoming)
Bob Vandeventer (incoming)
Dick Vernier (incoming)
Kathy Welling (incoming)

BOARD MEMBERS ABSENT:

Larry Bundy (outgoing)
Larry Mullins (outgoing)

The Annual Meeting was called to order at 10:13 AM at the Greenwood Community Center in Greenwood, Indiana, President Bruce Bowman presiding.

Three proxies were accepted for Devore, Haun, and Sollman. Director Larry Mullins has resigned his position since he is unable to attend the meetings on a regular basis (now living in Alabama). In addition to the three Officer positions, there are seven Director positions up for elections. Dave Haun was nominated for President via an absentee ballot; his proxy, Bambi Erwin, declined the nomination.

Election Teller Larry Reece reported that the absentee ballots gave a majority to the three unopposed incumbent Officers. Bill Tozer moved to accept Bowman as President by acclamation: Motion approved. Kriste Lindberg was nominated as Secretary, but declined the nomination. Bill Tozer moved to accept James Adams as Secretary by acclamation: Motion approved. Bill Tozer moved to accept Keith Dunlap as Treasurer by acclamation: Motion approved. The membership then cast ballots for the Director positions. Election Teller Reece took a few minutes to tally the ballots as the meeting continued.

Bowman passed out certificates of appreciation to Directors and Officers who served during 1997. An additional certificate was presented to Steve Lockwood for his work with the Hoosier National Forest.

There has been talk of a desire by representatives from the City of Bloomington to gate Shirley Spring

Cave. There is an easement that crosses the property and logging is reportedly planned. A road that runs next to the cave has been improved. Since the IKC has received no formal request for help from the Department of Parks and Recreation, we will gather more information and a more complete report may be made at the next meeting.

There was some vandalism in Langdons Cave and prosecution of the alleged vandals is underway. They were due to be arraigned on March 16. No further details are available.

At this time, Election Teller Reece reported that the following Directors were elected: Steve Lockwood, Tom Rea, Robert Sergesketter, Bill Tozer, Bob Vandeventer, Dick Vernier, and Kathy Welling. Lockwood will serve the one-year term vacated by Mullins.

The new Directors were congratulated and were seated at this time. Tom Sollman's proxy was rescinded because Vernier was elected as a Director.

Rea moved to destroy the ballots, seconded by Erwin. Motion approved, 14-0.

The IKC web server has changed and we will now be charged \$1.00 per month. Sergesketter moved and Rea seconded to approve the \$1.00 per month charge for the server access. Motion approved, 14-0.

Treasurer Dunlap reported that the IKC has assets of \$32,174.44. Of this amount, \$9,923.96 is held in the general fund. He also reported that the sharing of a bank account with the Central Indiana Grotto has been discontinued. The IKC continues to share accounts with the Indiana Cave Survey and the Indiana Cave Symposium.

The December 1997 and February 1998 meeting minutes were approved as published in the March *IKC Update*.

Tozer spoke about the Sullivan Cave Management Plan. The history section has been added since the last revision. There were several corrections that were made. Welling moved to accept the plan as amended. Dunlap seconded. Motion approved, 14-0.

Bowman asked the membership if the Sullivan Cave Management Plan should be posted on the IKC web page. There were no objections and several members came out in support of posting the plan. The management plan, cave map (rough), visitation rules, and waiver form will be posted. The parking permit is one item that will not be posted since these require a patron's signature.

Dunlap reported that almost \$38,000 has been received in cash or in pledges for the purchase of the Sullivan property. Of this amount, \$22,223 has been received and \$15,760 is pledged. About half the membership have renewed their dues. More pledges and contributions are expected. A \$5,000 grant was received from the National Speleological Society and \$3,500 has been granted by the Richmond Area Speleological Society and its associated trust.

Vandeventer announced that, as a fund raising project, a new Pentium computer, HP printer, and 56K modem will be raffled. If all the tickets are sold, \$3,000 is expected to be raised and donated to the Sullivan fund.

Bambi Erwin noted that the CIG Cave Capers pre-registration form has a line for attendees to make a Sullivan fund donation.

There are several items that have been donated to the IKC for the purpose of raising money for the Sullivan fund. Ideas were discussed for liquidating these items. A fund raising booth at the NSS Convention was suggested. Items could also be put into consignment sales. There might also be a silent auction.

Under Earth Day at Sullivan Cave is being planned for April 19. More supervised activities are being planned this year with above-ground activities being coordinated. Funds are needed for trail work on the property. Adams moved to authorize up to \$100 for trail building supplies. Tozer seconded. Welling amended to increase the amount to \$200. Adams accepted the friendly amendment. Motion approved, 14-0. Lockwood will donate some spare timbers to the project that will help offset the cost.

Biologist Dr. Julian Lewis is currently working on a bio-inventory in Binkleys Cave. He would like to sample water at 30 areas and has requested a grant to offset his expenses which we believe might be about \$900. Three matching donations have also been pledged. Dunlap moved that the IKC donate \$200 (yielding \$800 total). Tozer seconded. Motion

approved, 14-0. Reece noted that the IKC should get a copy of the results and Bowman said that the IKC would get recognition and would be able to republish the results of the study.

The Orangeville Rise and Indian Creek Sinks property transfer is moving slowly. Insurance has tentatively been arranged. The IKC is also looking at management possibilities at two other cave locations.

Lindberg has almost finished the new IKC brochure. She passed around a sample that the membership could critique.

Take Pride In America Day, sponsored by the Hoosier National Forest, is planned for May 9 at Wesley Chapel Gulf.

Papers are being solicited for the annual Indiana Cave Symposium on April 25. Dave Black is coordinating the program. Tozer and Lindberg are scheduled to give presentations.

Rea brought several copies of the 1996 Speleo Digest to the meeting. The book has just been published by the National Speleological Society.

Dunlap suggested that we put all of our visitation waivers on the IKC web page as downloadable files. This seemed like a good idea and the membership was in favor of posting the files to cut postage costs and ease the patrons' workload.

Nick Noe is updating the IKC display booth and hopes to have it ready for Earth Day on April 25. Adams moved to approve up to \$50 for Earth Day expenses. Welling seconded. Motion approved, 14-0.

The next meeting will be on June 20 at 7:00 PM in Bloomington, Indiana. A Hancock Property workday is scheduled for the morning and afternoon before the evening IKC meeting.

Meeting adjourned at 12:24 PM.

Submitted by James Adams, Secretary

INDIANA KARST CONSERVANCY, PO BOX 2401, INDIANAPOLIS, IN 46206-2401

I would like to help the IKC protect Indiana's unique caves and other karst features. Enclosed is:

\$ _____ for IKC membership dues at \$15 per year (dues expire March 31st of each year, please pro-rate @ \$1.25/month).

\$ _____ donation to the general IKC fund.

\$ _____ donation restricted to a specific IKC project. Please specify: _____

_____ I know of an area worthy of protection. Please contact me.

_____ I would like to volunteer to help. Please contact me.

NAME _____

ADDRESS _____

CITY/STATE/ZIP _____

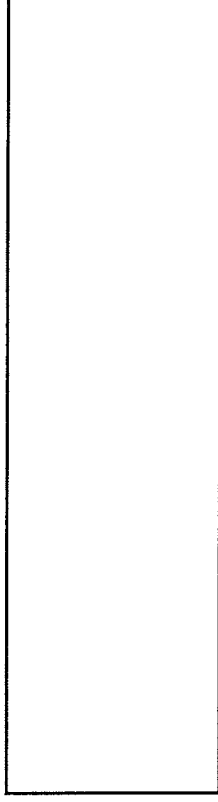
PHONE # _____

Make checks payable to the Indiana Karst Conservancy, Inc. and mail to the IKC Treasurer, c/o Indiana Karst Conservancy, PO Box 2401, Indianapolis, IN 46206-2401. The IKC is an IRS recognized 501(c)(3) non-profit organization with membership dues and donations fully tax deductible.

Indiana Karst Conservancy
PO Box 2401
Indianapolis, IN 46206-2401

FORWARD & ADDRESS CORRECTION

NONPROFIT ORG.
U.S. POSTAGE
PAID
INDIANAPOLIS, IN
PERMIT NO 8781



PROTECTING CAVES THROUGH ACTIVE CONSERVATION