



P.O. Box 243  
Frankford, WV 24938

## **ISLAND FORD CAVE PRESERVE MANAGEMENT PLAN**

### **APPROVAL**

The Board of Directors of the West Virginia Cave Conservancy approved this Management Plan on November 7, 2004.

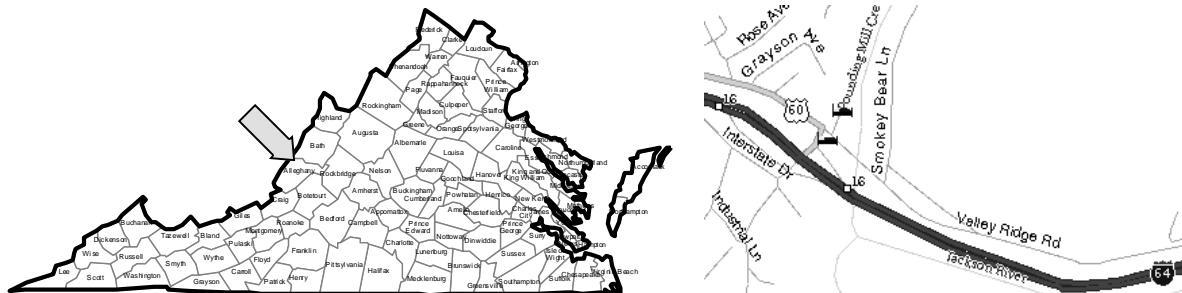
### **INTRODUCTION**

The West Virginia Cave Conservancy (WVCC), a non-profit, West Virginia Corporation, received in 2002 a parcel of approximately 5.22 acres that includes the entrance to Island Ford Cave. This parcel is adjacent to U.S. Route 60 and Interstate 64, just east of the town of Covington, in Alleghany County, Virginia.

Access to caves and associated karst features in Alleghany County is potentially threatened by increased recreation usage, liability concerns, and changing demographic and land-use patterns. One of the goals of the WVCC is to maintain open access to Island Ford Cave and to other threatened caves and karst features of the Virginias. Island Ford Cave offers outstanding scientific, educational, and recreational opportunities. WVCC will manage the Island Ford Cave Preserve to maximize these benefits.

### **SITE LOCATION**

The entrance to Island Ford Cave is situated approximately 50 feet from State Route 1104 (Valley Ridge Road), just east of the town of Covington, in Alleghany County, Virginia. It is shown on the Covington Topographic Quadrangle (159C), lat. 37° 46' 52"



N., long. 79° 55' 46" W., elev. 1,160'. The WVCC acquired approximately 5.22 acres of land surrounding the Island Ford Cave Entrance. A site map of the property is at Addendum 1; the plat survey is at Addendum 2.

The site offers abundant opportunities for day use activities, such as: recreational caving, picnicking, birding, fishing (in the nearby Jackson River), and hiking. Appropriate facilities may be developed to support such activities in the future.

## **HISTORY OF THE CAVE & PROPERTY**

Due to its location adjacent to a state road, an Interstate highway and a river, and its impressive entrance, Island Ford Cave has been well known local feature for many years. It is believed that the present entrance was opened as a result of a road cut during the construction of US Route 60 (The Midland Trail) in the 1930's. The cave is mentioned in H. H. Douglas' **Caves of Virginia** (Virginia Cave Survey, 1964), and a description (see below) and map appeared in **Descriptions of Virginia Caves** by John R. Holsinger (Bull. 85, Virginia Division of Mineral Resources, 1975).

Holsinger describes Island Ford Cave as follows:

“The entrance to Island Ford Cave is a large, impressive opening, 50 feet wide and 15 to 20 feet high. It is on the west flank of a small anticline that is exposed just north of the Jackson River. Just inside of the entrance is a large room, 150 feet long and 50 feet wide, extending to the NNE. Beyond the entrance room the cave gets considerably smaller but continues for 550 feet to the NE as an upper dry level and a lower (partially developed) level with a small stream. The stream enters the cave through a siphon at the rear and flows to the SW to a siphon about 150 feet from the entrance. The stream apparently resurges into the Jackson River at a point lower than entrance. Island Ford Cave contains approximately 1,400 feet of passage and is developed along the strike in Upper Silurian limestone that dips steeply to the NW.”

The cave map shown in Holsinger was the result of a survey by D. J. Newson and C. Mullen in January 1968. A much more thorough survey and map were completed in 1986 by Bill Balfour, Phil Lucas, Tom Spina, Charlie Lucas, and Kelli Reardon. A copy of this map is at Addendum 3.

The cave has become a popular destination for organized caving groups as well as amateur spelunkers. Unfortunately, it has also become a favorite spot for beer parties and for illegal dumping of refuse, both of which have led to serious consequences for the cave and its inhabitants.

The property was deeded to the WVCC from the Estate of John R. Dawkins in the year 2002. It and adjacent tracts remain as mature woodland.

## **CAVE RESOURCES**

The large entrance room is impressive, and is favored by pigeons as a roosting area. The rest of the cave's passages are unremarkable; they afford a moderate physical challenge to human visitors, but present no special danger. At the very end of the cave is a resurgence pool of the cave stream, and this pool contains cave-adapted isopods

and crayfish. The cave also has several Pleistocene age bone sites. Island Ford Cave is listed on the Virginia Significant Cave List for its geology, biology, history, and esthetics.

## **SURFACE RESOURCES**

The surface resources of the site are part of the Island Ford Cave ecosystem and should therefore be afforded the same amount of study and protection as the cave itself. At this time, only a cursory investigation of the site has taken place. It is recommended that a more comprehensive investigation be conducted, possibly in partnership with local academic institutions (VPI, Radford, UVA, VMI, etc.).

A mature oak-hickory forest extends across the steep sided terrain of this site. Oak, beech, hickory and poplar dominate the canopy of the forest and are supported by an understory of dogwood, sourwood, redbud, and other species. Mosses, ferns, bloodroot, trillium, cardinal flower, and members of the orchid family can be found sporadically throughout the site. The north side of the property abuts a residential neighborhood.

The upper reaches of this property were probably timbered 40 to 60 years ago and thus the site represents a mature second-growth forest. It is recommended that a volunteer forester cruise the property to identify hazard trees, invasive species, and assess the potential value of specific trees for any future select harvesting of the site.

## **RECREATION RESOURCES**

Island Ford Cave is the most readily accessible non-commercial cave in Virginia. It receives a fair amount of local visitation by flashlight cavers. The cave appears to have escaped the high-traffic of college students and commercial guides because of its geographic location and its deceptive size. However, Island Ford Cave does provide a rewarding in-cave experience to both the novice and experienced caver. A typical visit to the cave lasts between one to two hours. No special gear is required (other than standard horizontal cave equipment).

Hiking (and birding and plant identification) needs could be met on site by providing a loop trail from the proposed parking area. This approximately 1.5 mile long trail could bolster the educational benefits of the cave by including appropriate interpretive signage recognizing the geology, plant life, and cultural history of the site. It is recommended that the trail consist of an earthen single-track treadway and that side-hill construction address run-off and erosion through adequate control devices.

At this time, mountain biking is not recommended on this site because of the limited acreage of the property, steep topography, and proximity to private dwellings. If mountain biking is allowed on site at a later date, then it is recommended that all trails follow International Mountain Bicycling Association (IMBA) trail construction/management guidelines.

## **ACCESS POLICY**

The Preserve and Island Ford Cave shall be maintained in an “open” condition, and will be freely available to all responsible cavers, regardless of organizational affiliation, and to the public at large.

The single exception to this open access policy is that the WVCC prohibits use of the cave and property for “cave-for-pay” purposes. In this regard, cave-for-pay is defined as a caving experience for which the participants pay a fee, and in which a profit motive is involved. Such organized tour operations place an undue stress on the resource. Occasional field trips conducted by an accredited educational institution or by a civic or community organization wherein fees are used only to offset the actual cost of transportation and equipment are not considered cave-for-pay, but such organizations are encouraged to coordinate their usage with the Island Ford Management Committee.

The WVCC reserves the right to deny access to any individual or group who, in its sole estimation, presents an actual or potential threat to the preservation of the resource, and may employ any and all remedies available to landowners with respect to trespass.

## **CAVE-USE MITIGATION POLICY**

Mitigation measures are an array of actions (or tools) that may be undertaken to augment cave protection strategies. At the present time, the following protection strategies have been implemented:

### **Regulations: Approved Preserve Rules & Virginia Cave Law**

The WVCC Board has approved a set of rules for the preserve (below); these, and the Virginia Cave Law (Addendum 4) are prominently posted on the kiosk in the entrance room. A metal Cave Law sign is affixed to the wall at the rear of the entrance room.

### **Education: Interpretive Kiosk Display**

In late 2003, a wooden informational kiosk was installed in the entrance room of the cave. The kiosk has a shingled roof to protect it from the elements and the pigeons, and a dual-sided display area at eye-level. The kiosk is used to display the Virginia Cave Law, information about the cave (including its description, history, map, and visitation rules), educational resources (including web links and a listing of regional caving groups), and informational brochures (including Rules for Safe Caving, Cave Conservation, and membership applications for the WVCC and the National Speleological Society (NSS)).

### **Vehicular Access Restriction**

In late 2003, several large rock bollards were placed across the entrance at the drip line in order to prevent vehicular access to the cave, while defining an off-road parking area that will accommodate three vehicles. This restriction has served well as a deterrent to wholesale dumping of refuse in the entrance room, while allowing foot traffic.

### **Monitoring: Quarterly Adopt-A-Spot Clean Up**

Under the Virginia Adopt-A-Spot Program, the Virginia Area Region of the National Speleological Society and several of its local grottos volunteer their labor four times a year to clean up trash in the cave and remove graffiti from the walls. Other users are encouraged to do the same, and/or to report to the Management Committee when the Preserve needs attention.

Any change to present mitigation strategies shall be proposed in writing to the WVCC Board for their approval. Additional strategies shall be adopted only in response to definite and persistent egregious incidents and will not be initiated in response to any one event. Said threats must illustrate a definite pattern or increased likelihood of threat to the cave or cave preserve. Preservation strategies shall be of a scale commensurate to the immediate threat potential. In addition, it shall be the policy of the Preserve to initiate the least invasive mitigation tool necessary to meet the threat.

The following table denotes examples of various mitigation strategies and their impact.

<b>Strategy</b>	<b>Low Impact</b>	<b>Medium Impact</b>	<b>High Impact</b>
Education	Brochure	Increased Signage	On-site Education
Regulations	Visitation Restrictions	Written Permission	Cave Closure
Monitoring	Sporadic Sampling	Written Surveys	Site Surveys
Enforcement	Casual	Designated Grotto	Police
Improvements	Restrict Parking	Closed at Dark	Cave Gate

### **PUBLICITY POLICY**

WVCC will publicize the Island Ford Cave preserve only to the extent necessary to accomplish its mission goals. Public dissemination of karst and cave location information will be restricted and generally only available within the established caving community. Publicity will be limited to information needed to promote WVCC/NSS educational and scientific goals. In the event of a rescue at the cave, WVCC will make every effort to minimize media coverage, especially any location information.

### **MANAGEMENT**

The Board of Directors has established a Management Committee to implement and monitor this management plan. The Board will be responsible for any plan changes. The Management Committee will report to the Board on the status of the preserve, with any recommendations for changes to this plan.

Land use management strategies shall be based upon accepted best management practices utilized by the caving and natural resource communities.

### **Island Ford Cave Preserve Rules**

The management committee will be responsible for monitoring the following rules controlling use of the preserve:

1. No camping or open fires will be permitted.
2. All trash and human waste must be packed out.
3. Motorized vehicles are prohibited except in designated parking areas and roadways.
4. The collection, destruction, and/or removal of plants, animals, minerals, or historical/cultural items are strictly forbidden.
5. Defacement or marring of the cave in any permanent or semi-permanent manner is prohibited. This includes the placement of bolts, anchors, graffiti, and/or directional paint markings.
6. No littering or glass containers are allowed.
7. Hunting and/or the discharge of firearms or fireworks are prohibited.
8. No commercial activity, including cave-for-pay, will be allowed on the property.
9. Visitors' conduct shall conform to National Speleological Society conservation guidelines, and to NSS Safety and Techniques Committee recommendations.
10. Visitors are expected to comply with all applicable state and federal laws (see Addendum 4).

### **SPECIAL ACTIVITIES (RESEARCH, CONSERVATION, ETC.)**

The Management Committee shall have the right to issue a variance to individuals who petition the Committee in writing for specific and limited exceptions to certain regulations in the interest of cave science, preservation, conservation, and/or exploration. Such variances shall only be issued to those individuals or groups that have successfully satisfied all State and Federal cave protection guidelines.

The Management Committee must approve all conservation efforts prior to their taking place.

Individuals and organizations are encouraged to submit copies of relevant professional papers, articles, surveys, photographs, and related materials to the WVCC for eventual submittal to the NSS Library and Virginia Speleological Survey database (with the author's approval).

## **MAINTENANCE**

Maintenance of the site shall be the responsibility of the WVCC and their designees.

Routine maintenance will be performed four times a year and coincide with the VAR Adopt-A-Spot Cleanup of Island Ford Cave.

Annual maintenance shall be performed as necessary and be open to all who wish to attend.

Maintenance activities may include, but shall not be limited to: clearing brush, litter removal and trash pick up, fence installation, deadfall removal, boundary marker installation, trail construction, drainage and sedimentation/erosion control measures, habitat improvements, grading, clearing and grubbing, signage installation, and other necessary activities.

Participants in work activities shall file a written maintenance plan and complete liability forms.

## **EMERGENCY RESPONSE & INCIDENT CONTROL**

Site emergencies/incidents may include, but are not limited to the following:

- ▶ Criminal Incidents
- ▶ Search & Rescue
- ▶ Medical Emergencies
- ▶ Forest Fire
- ▶ Flooding
- ▶ Hazardous Materials

Local emergency and cave rescue organization (NCRC) contact numbers will be prominently posted on site. Every effort should be made to deal with on-site emergencies internally; however, some types of incidents may be better handled by local authorities.

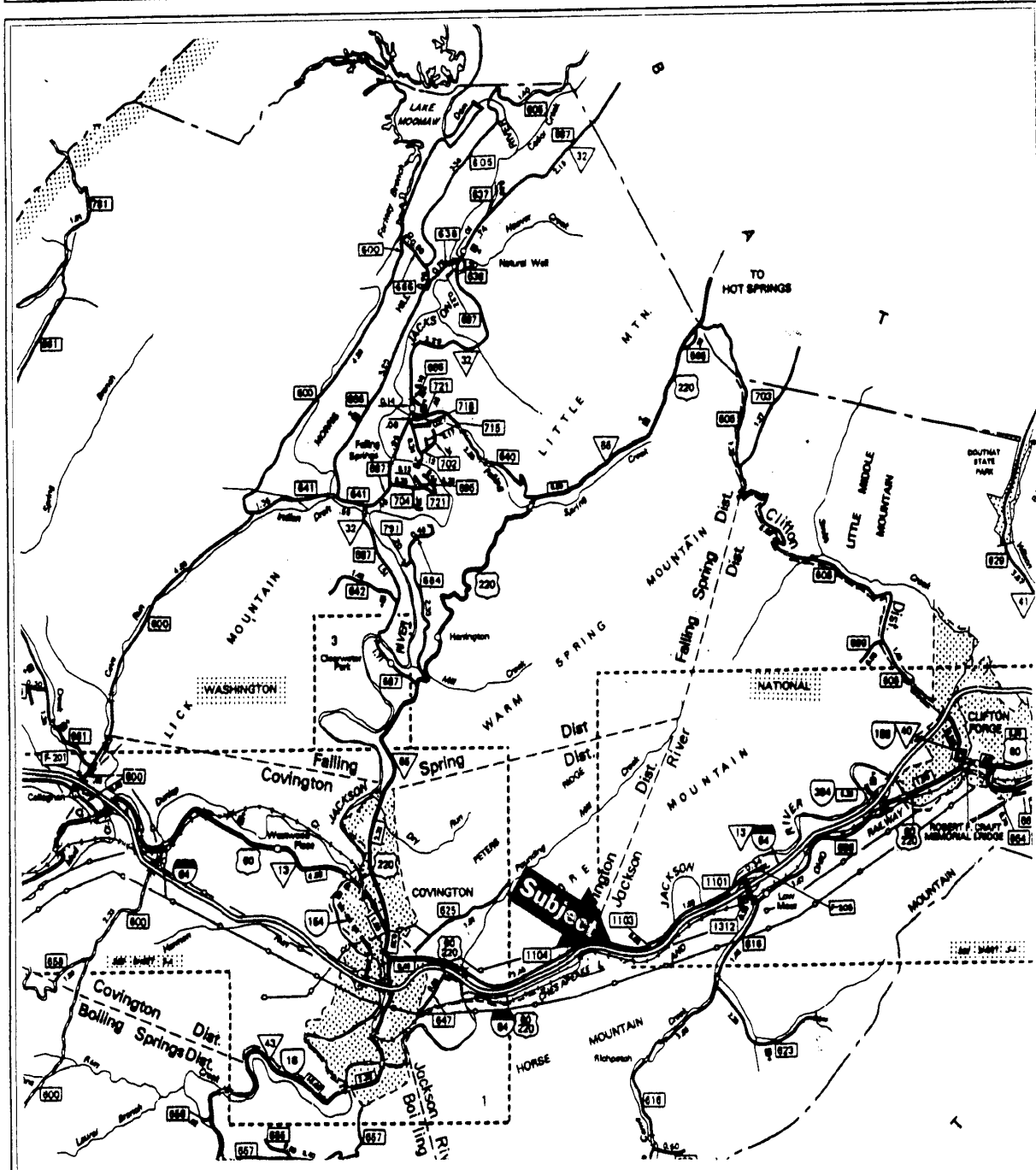
## **FUTURE PLANS**

In the future, a picnic area and nature trail may be established, if a desire for these facilities is expressed by the caving community.

ADDENDUM 1: SITE MAP

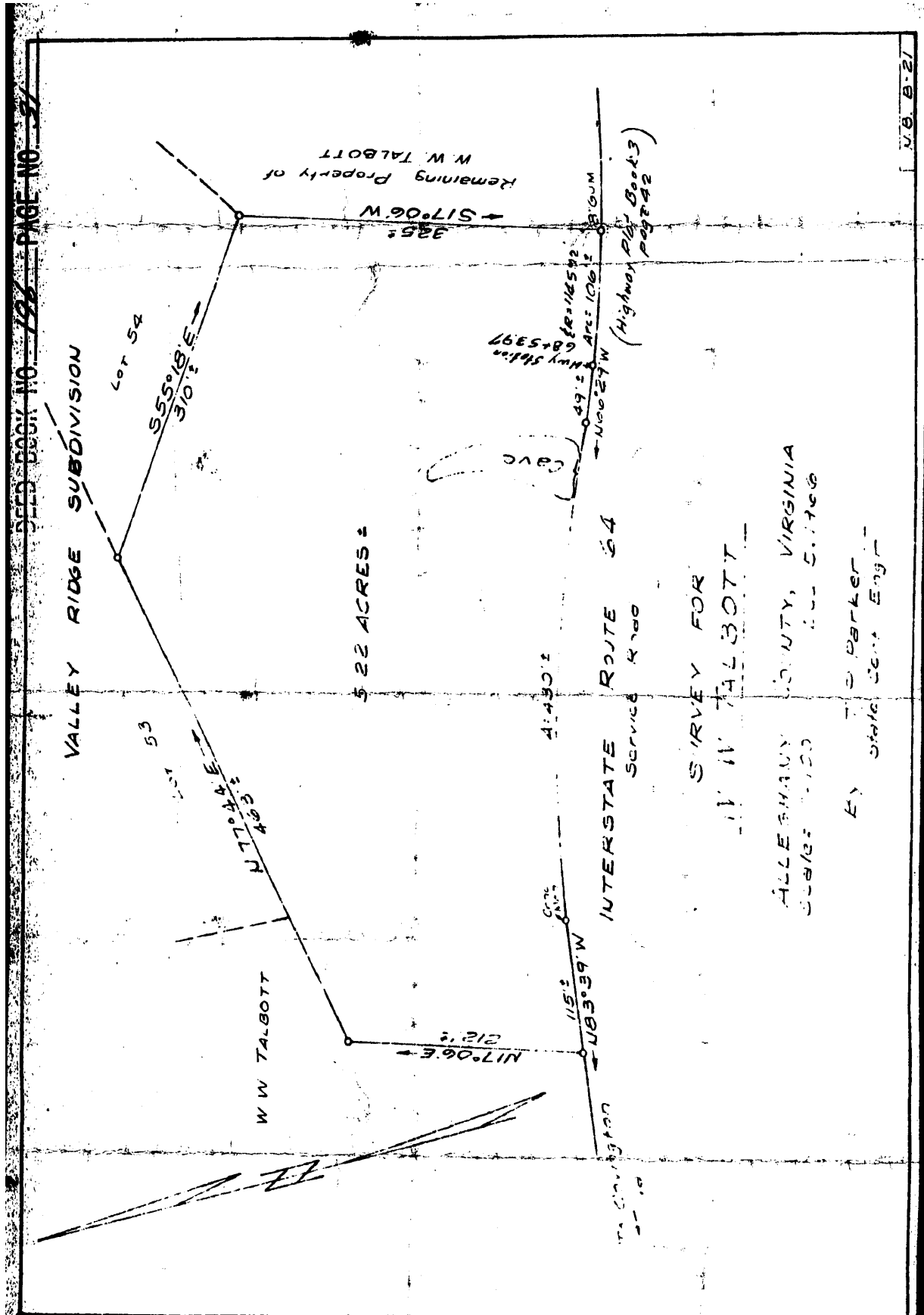
LOCATION MAP

Borrower/Client: Estate of John R. Dawkins	File No.:
Property Address: State Route 1104 (Valley Ridge Road)	Case No.:
City: Covington	State: Virginia Zip: 24426





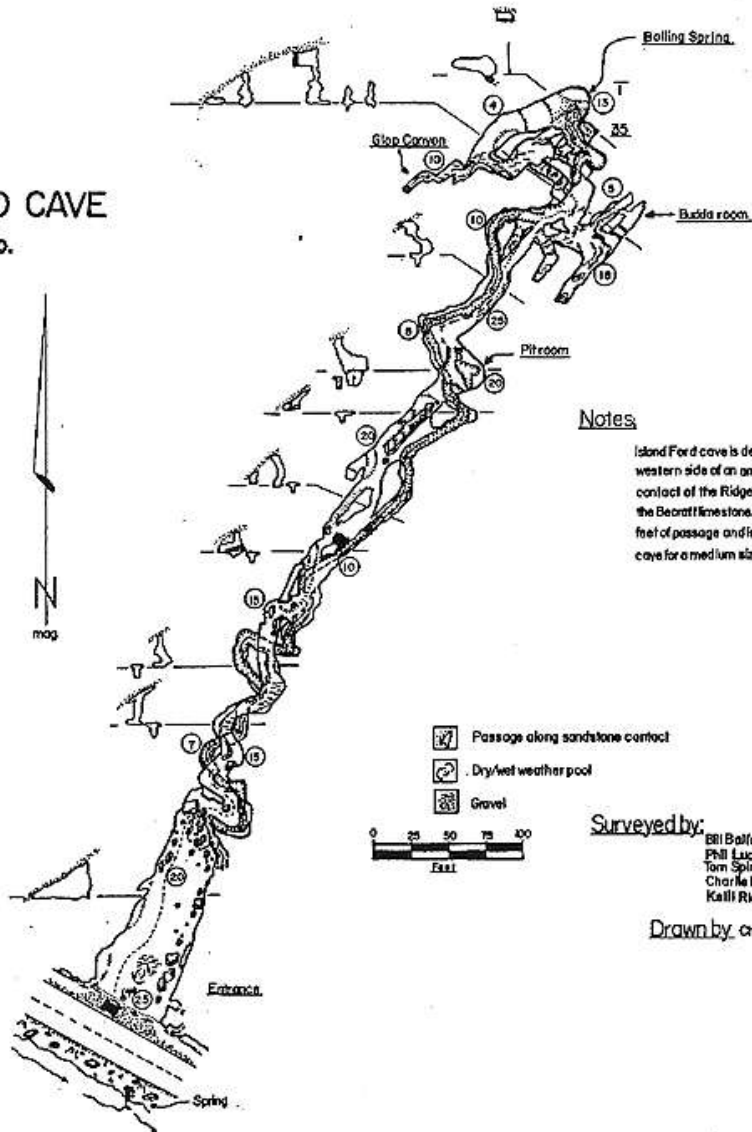
ADDENDUM 2: PLAT SURVEY MAP



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# ADDENDUM 3: ISLAND FORD CAVE MAP

## ISLAND FORD CAVE Allegheny Co.



### Notes

Island Ford cave is developed on the western side of an anticline along the contact of the Ridgely sandstone and the Beartf limestone. It contains 2 2034 feet of passage and is the resurgence cave for a medium sized stream.

### Entrance Appearance



Jackson River

### Surveyed by:

(7/4/86)

Bill Balfour,  
Phil Lucas,  
Tom Spina,  
Charlie Lucas,  
Kelli Riordan

Drawn by: Charlie Lucas (7/16/86)

# Virginia Cave Law

## Code of Virginia - Sections 10.1-1000 through 10.1-1008

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### **§ 10.1-1000 Definitions**

As used in this chapter, unless the context requires a different meaning:

"Board" means the Cave Board.

"Cave" means any naturally occurring void, cavity, recess, or system of interconnecting passages beneath the surface of the earth or within a cliff or ledge including natural subsurface water and drainage systems, but not including any mine, tunnel, aqueduct, or other man-made excavation, which is large enough to permit a person to enter. The word "cave" includes or is synonymous with cavern, sinkhole, natural pit, grotto, and rock shelter.

"Cave life" means any rare or endangered animal or other life form, which normally occurs in, uses, visits, or inhabits any cave or subterranean water system.

"Commercial cave" means any cave utilized by the owner for the purposes of exhibition to the general public as a profit or nonprofit enterprise, wherein a fee is collected for entry.

"Gate" means any structure or device located to limit or prohibit access or entry to any cave.

"Material" means all or any part of any archaeological, paleontological, biological, or historical item including, but not limited to, any petroglyph, pictograph, basketry, human remains, tool, beads, pottery, projectile point, remains of historical mining activity or any other occupation found in any cave.

"Owner" means a person who owns title to land where a cave is located, including a person who owns title to a leasehold estate in such land, and including the Commonwealth and any of its agencies, departments, boards, bureaus, commissions, or authorities, as well as counties, municipalities, and other political subdivisions of the Commonwealth.

"Person" means any individual, partnership, firm, association, trust, or corporation or other legal entity.

"Sinkhole" means a closed topographic depression or basin, generally draining underground, including, but not restricted to, a doline, uvala, blind valley, or sink.

"Speleogen" means an erosional feature of the cave boundary and includes or is synonymous with anastomoses, scallops, rills, flutes, spongework, and pendants.

"Speleothem" means a natural mineral formation or deposit occurring in a cave. This includes or is synonymous with stalagmite, stalactite, helectite, shield, anthodite, gypsum flower and needle, angel's hair, soda straw, drapery, bacon, cave pearl, popcorn (coral), rimstone dam, column, palette, flowstone, et cetera. Speleothems are commonly composed of calcite, epsomite, gypsum, aragonite, celestite, and other similar minerals.

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### **§ 10.1-1001 Cave Board; qualifications; officers**

A. The Cave Board is continued within the Department of Conservation and Recreation and shall consist of the Director of the Department of Historic Resources, or his designee, serving in an ex officio capacity and eleven citizens of Virginia appointed by the Governor for four-year terms. Appointments shall be made on the basis of activity and knowledge in the conservation, exploration, study and management of caves.

B. The Cave Board shall meet at least three times a year. Six members shall constitute a quorum for the transaction of business. The Board shall annually elect a chairman, vice-chairman and recording secretary and such other officers as the Board deems necessary.

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### **§ 10.1-1002 Powers and duties of Cave Board**

A. The Cave Board may perform all tasks necessary to carry out the purposes of this chapter, including the following:

1. Accept any gift, money, security or other source of funding and expend such funds to effectuate the purposes of this chapter.
2. Serve as an advisory board to any requesting state agency on matters relating to caves and karst.
3. Conduct and maintain an inventory of publicly owned caves in Virginia.
4. Provide cave management expertise and service to requesting public agencies and cave owners.
5. Maintain a current list of all significant caves in Virginia and report any real and present danger to such caves.
6. Provide cave data for use by state and other governmental agencies.
7. Publish or assist in publishing articles, pamphlets, brochures or books on caves and cave-related concerns.
8. Facilitate data gathering and research efforts on caves.
9. Advise civil defense authorities on the present and future use of Virginia caves in civil defense.

10. Advise on the need for and desirability of a state cave recreation plan.
  11. Inform the public about the value of cave resources and the importance of preserving them for the citizens of the Commonwealth.
- B. The Cave Board shall have the duty to:
1. Protect the rare, unique and irreplaceable minerals and archaeological resources found in caves.
  2. Protect and maintain cave life.
  3. Protect the ground water flow which naturally occurs in caves from water pollution.
  4. Protect the integrity of caves that have unique characteristics or are exemplary natural community types.
  5. Make recommendations to interested state agencies concerning any proposed rule, regulation or administrative policy, which directly affects the use and conservation of caves in this Commonwealth.
  6. Study any matters of special concern relating to caves and karst.

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**§ 10.1-1004 Vandalism; penalties**

- A. It shall be unlawful for any person, without express, prior, written permission of the owner, to:
1. Break, break off, crack, carve upon, write, burn, or otherwise mark upon, remove, or in any manner destroy, disturb, deface, mar, or harm the surfaces of any cave or any natural material which may be found therein, whether attached or broken, including speleothems, speleogens, and sedimentary deposits. The provisions of this section shall not prohibit minimal disturbance for scientific exploration.
  2. Break, force, tamper with, or otherwise disturb a lock, gate, door, or other obstruction designed to control or prevent access to any cave, even though entrance thereto may not be gained.
  3. Remove, deface, or tamper with a sign stating that a cave is posted or citing provisions of this chapter.
  4. Excavate, remove, destroy, injure, deface, or in any manner disturb any burial grounds, historic or prehistoric resources, archaeological or paleontological site or any part thereof, including relics, inscriptions, saltpeter workings, fossils, bones, remains of historical human activity, or any other such features which may be found in any cave, except those caves owned by the Commonwealth or designated as Commonwealth archaeological sites or zones, and which are subject to the provisions of the Virginia Antiquities Act (§10.1-2300 et seq.).
- B. Entering or remaining in a cave which has not been posted by the owner shall not by itself constitute a violation of this section.
- C. Any violation of this section shall be punished as a Class 1 misdemeanor.
- D. The provisions of this section shall not apply to an owner of a cave on his own property.

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**§ 10.1-1005 Pollution; penalties**

- A. It shall be unlawful for any person, without express, prior, written permission of the owner, to store, dump, litter, dispose of or otherwise place any refuse, garbage, dead animals, sewage, or toxic substances harmful to cave life or humans, in any cave or sinkhole. It shall also be unlawful to burn within a cave or sinkhole any material, which produces any smoke or gas, which is harmful to any naturally occurring organism in any cave.
- B. Any violation of this section shall be punished as a Class 1 misdemeanor.

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**§ 10.1-1006 Disturbance of naturally occurring organisms; scientific collecting permits; penalties**

- A. It shall be unlawful to remove, kill, harm, or otherwise disturb any naturally occurring organisms within any cave, except for safety or health reasons; however, scientific collecting permits may be obtained from the Department.
- B. Any violation of this section shall be punished as a Class 3 misdemeanor.

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**§ 10.1-1007 Sale of speleothems; penalties**

It shall be unlawful for any person to sell or offer for sale any speleothems in this Commonwealth, or to export them for sale outside the Commonwealth. Any violation of this section shall be punished as a Class 1 misdemeanor.

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**§ 10.1-1008 Liability of owners and agents limited; sovereign immunity of Commonwealth not waived**

Neither the owner of a cave nor his authorized agents acting within the scope of their authority are liable for injuries sustained by any person using the cave for recreational or scientific purposes if no charge has been made for the use of the cave, notwithstanding that an inquiry as to the experience or expertise of the individual seeking consent may have been made.

Nothing in this section shall be construed to constitute a waiver of the sovereign immunity of the Commonwealth or any of its boards, departments, bureaus, or agencies.

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