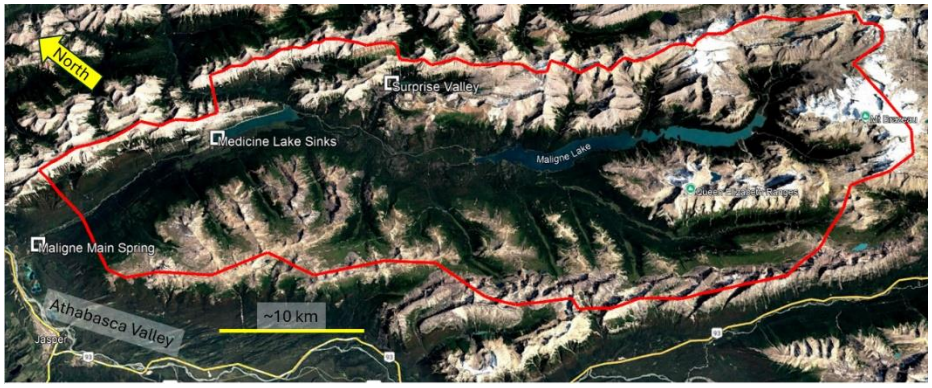
MIKAS and NIKAS springs photo gallery

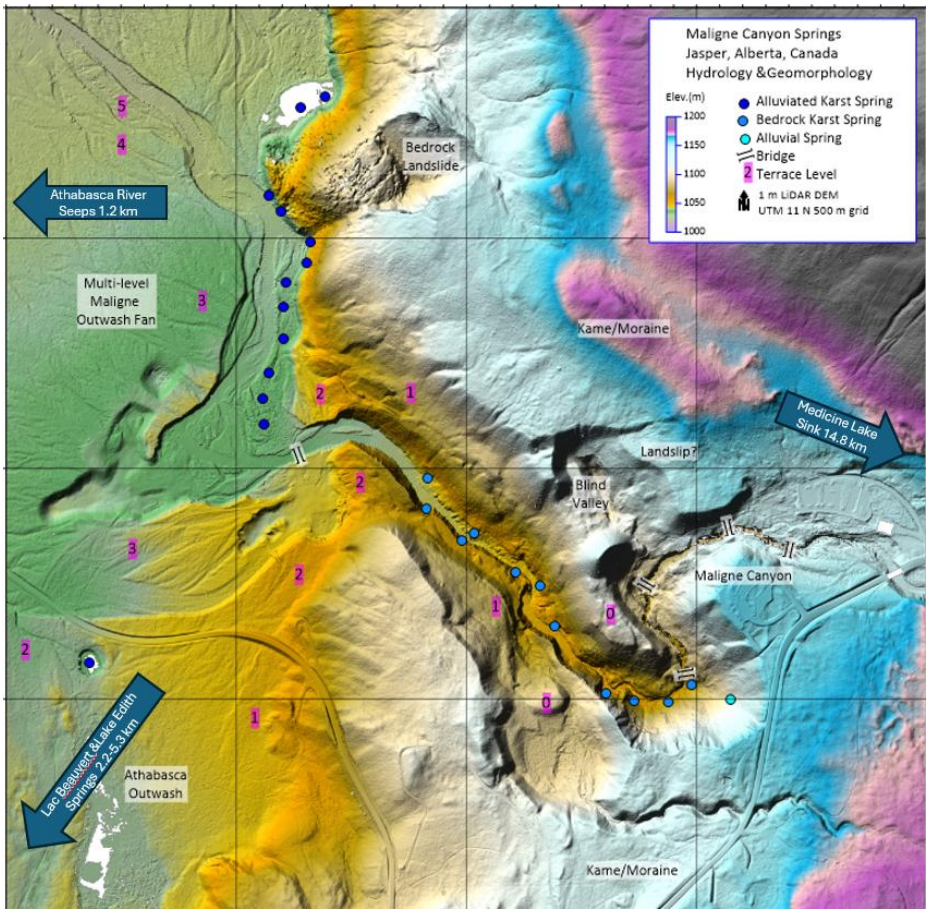
NORTH AMERICA

CANADA

MIKAS – Maligne spring



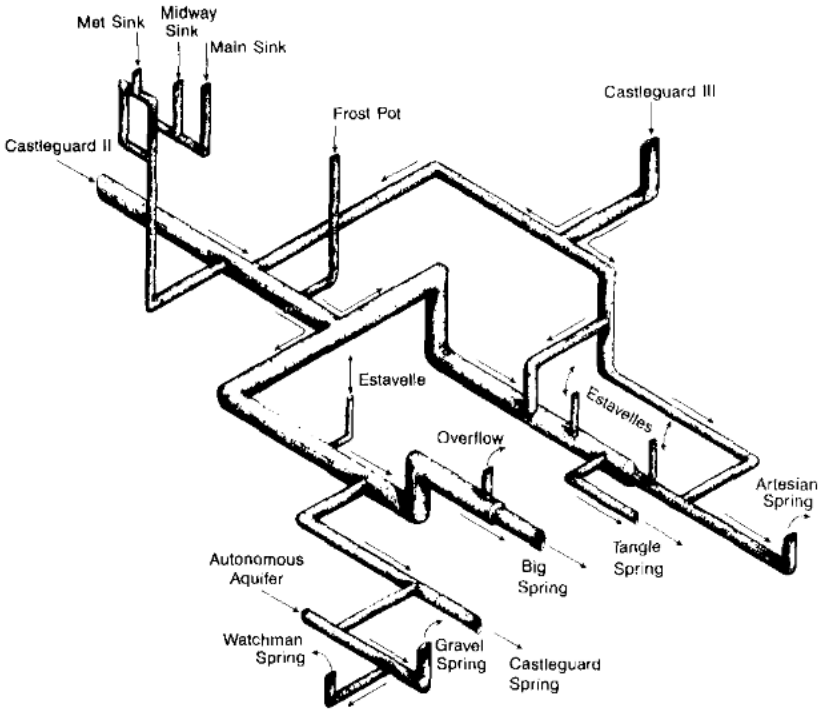
Google Earth Image. The main karst sectors are Surprise Valley and the Maligne Valley between Medicine Lake and the springs. Maligne Valley hangs some 120m above the present Athabasca valley.



LiDAR colour relief map of the Maligne Canyon springs. Traced conduit outlet springs occur over a 50 m elevation range. Numerous lower altitude alluvial springs are likely lowest elevation outlets, but have not been positively traced. The karst conduit likely terminates under the bedrock landslide, but at some depth below the current valley fill.

Maligne spring main outlet (photo by C.C. Smart)

MIKAS – Castleguard springs



From Smart 1983 (reproduced in Smart 1988) A sketch structural model of the Castleguard Aquifer. Not to scale and limited to monitored sites.

Castleguard Big Spring 22 July 2023. [Sara McLean with permission.] Several fracture springs are seen right of the main outlet. Turbid water in the foreground is Castleguard Glacier runoff. The small clear stream is fed by the overflow outlet to Big Spring.

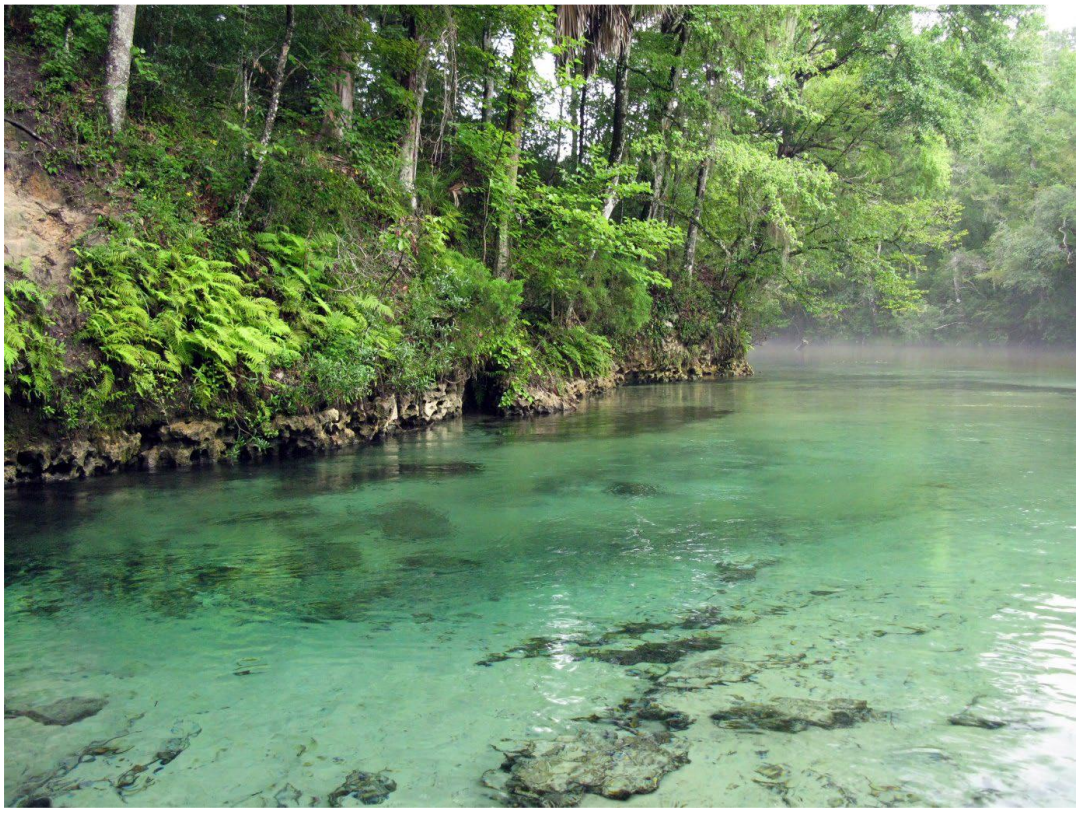
U S A

MIKAS – Chassahowitzka no. 1 / 7 Sister Springs

Chassahowitzka/7 Sister Springs (FGS)

Inside view of cavern at Chassahowitzka/7 Sister Springs (FGS)

MIKAS – Gainer spring



Gainer spring (FGS Photo)

MIKAS – Ichetucknee

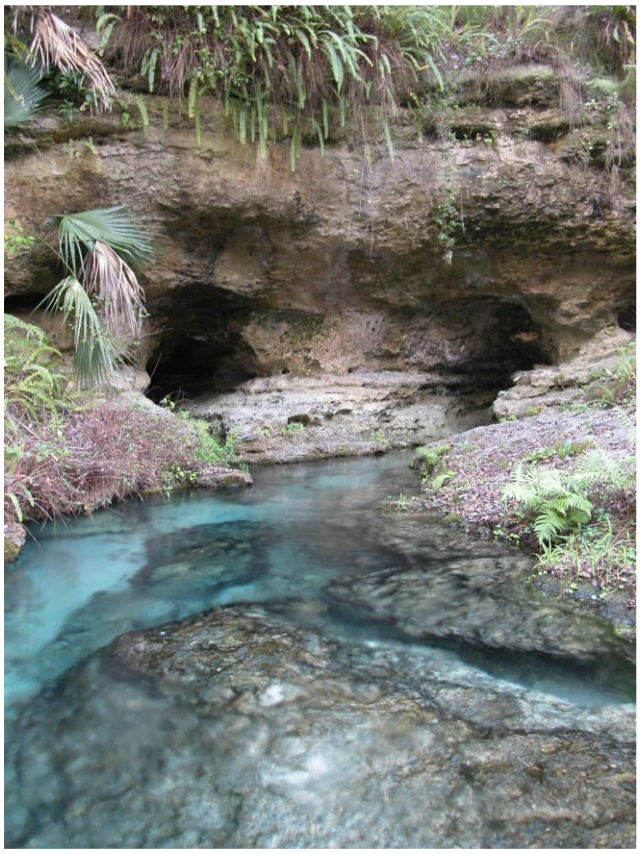
Ichetucknee Head Spring (Photo by Tom Scott)

MIKAS - Jackson Blue Spring

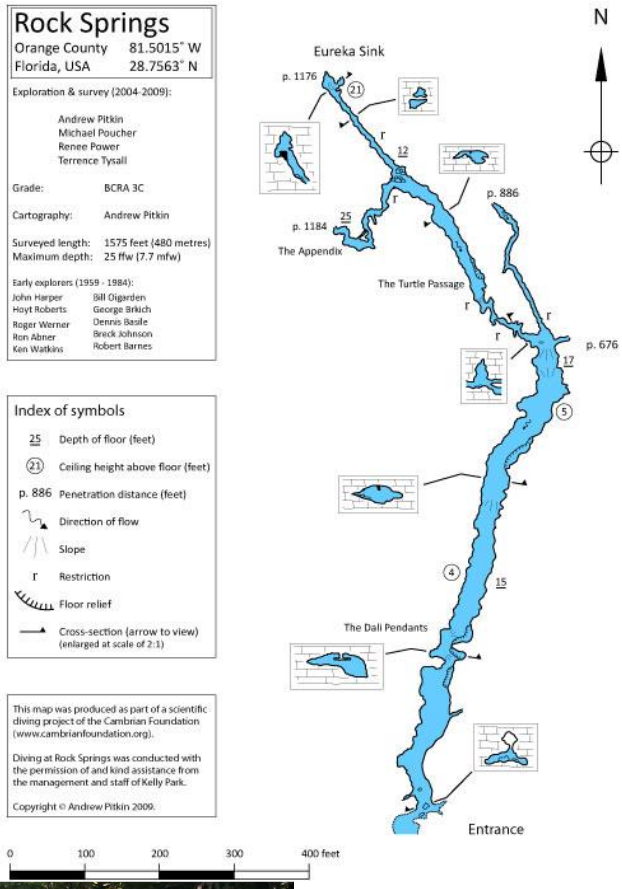
Aerial view of Jackson Blue Spring (Photo by Tom Scott)

Jackson Blue looking towards Merrits Mill Pond (FGS Photo)

MIKAS – Rock Springs and Wekiwa Springs



Rock Spring vent (Photo by FGS staff)



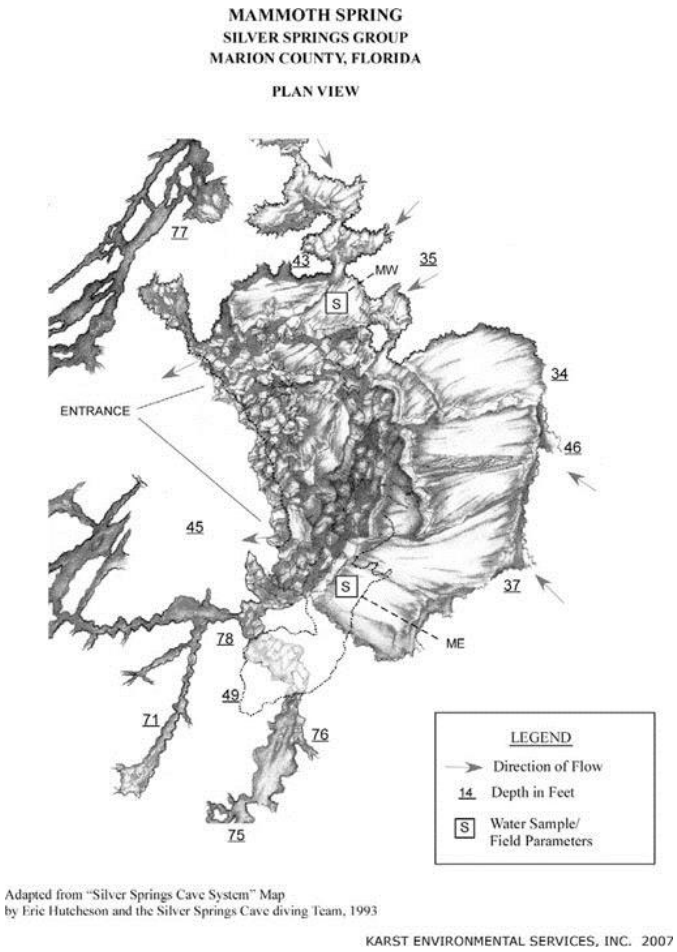
Cave map of Rock Springs (after Pitkin, 2009)

Wekiwa Spring Boil (Photo by FGS Staff)

MIKAS – Silver Springs Group

Silver Springs run (Photo by H. Means, FGS)

Silver Springs (Photo by FGS)



Mammoth Spring cave map (Karst Env. Services, Inc., 2007)

MIKAS – Suwannee Springs

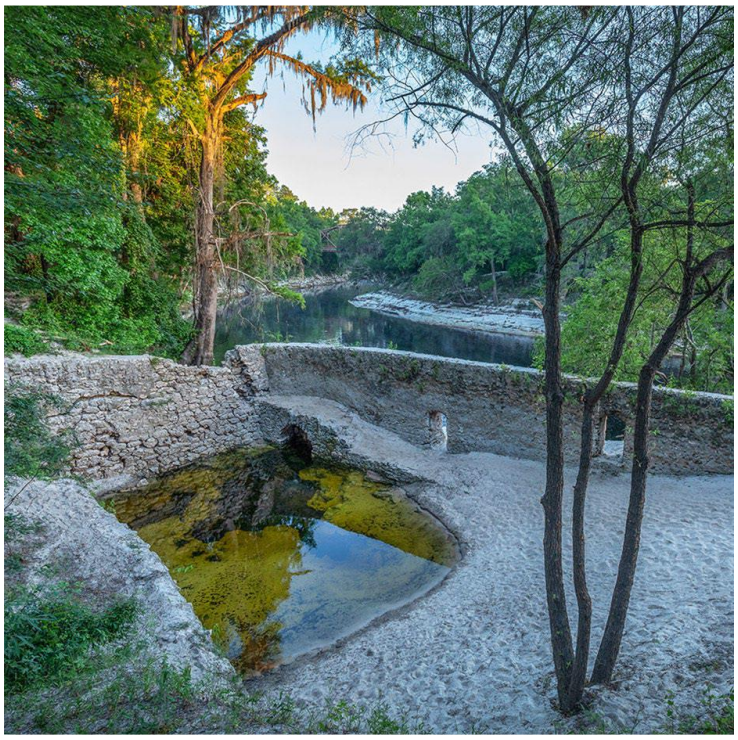
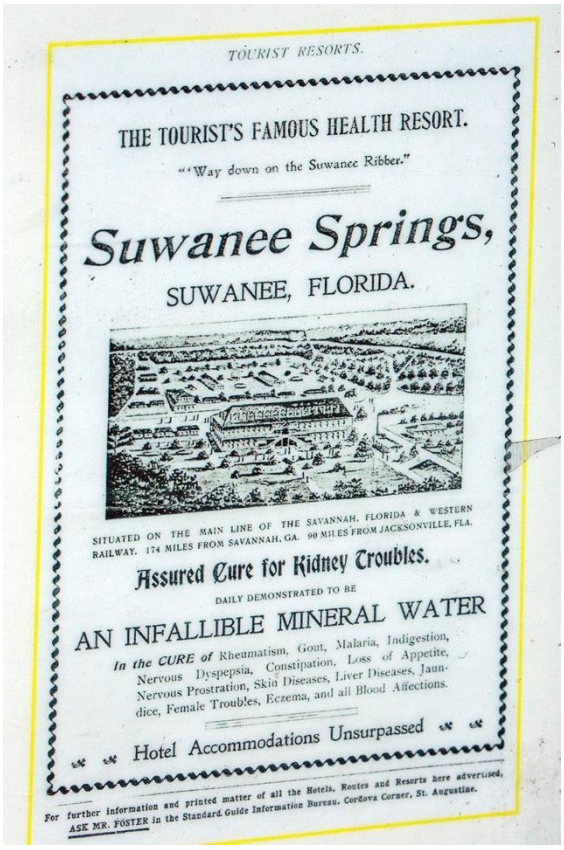
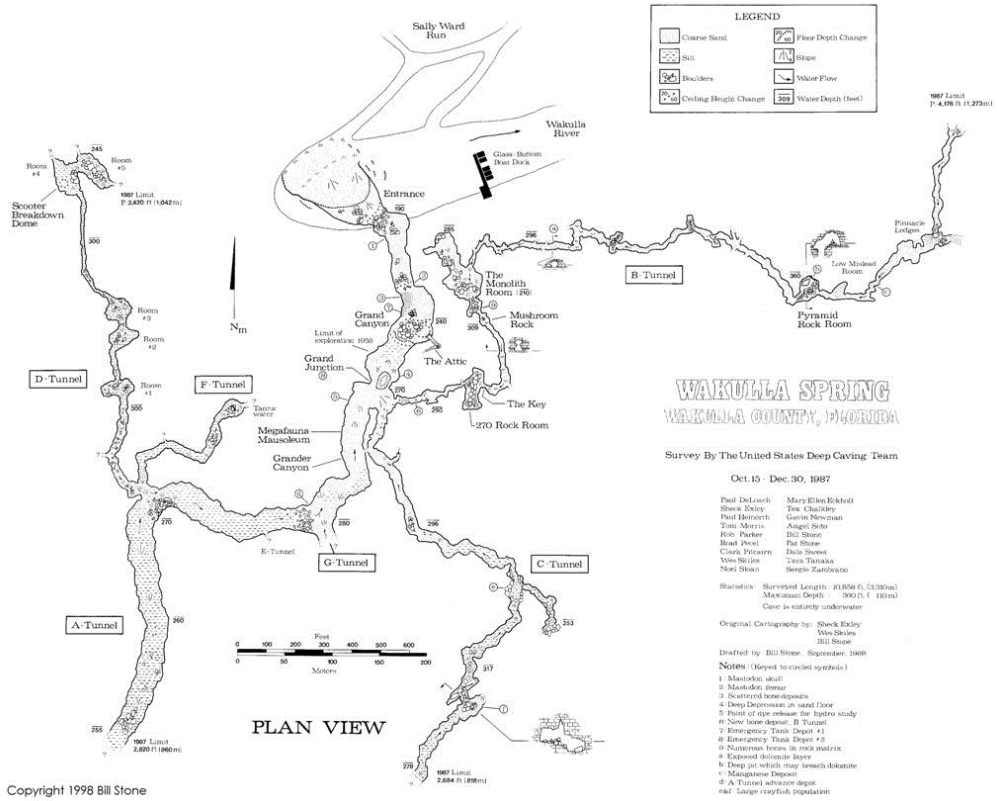


Image of Suwannee Springs by John Moran



1800s advertisement of Suwannee Springs Resort

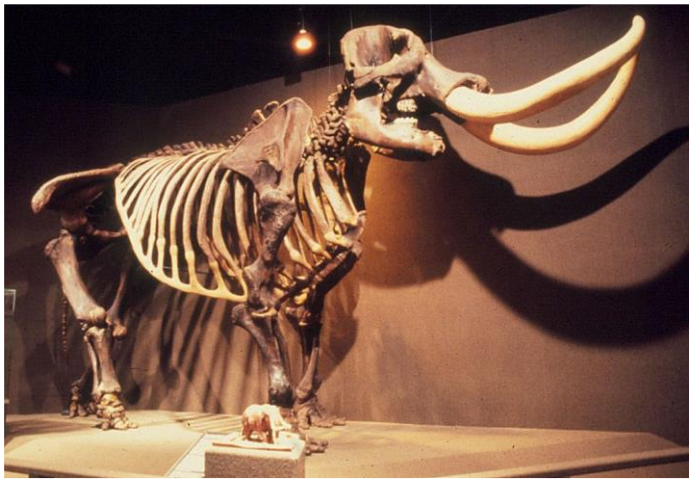
MIKAS – Wakulla Spring



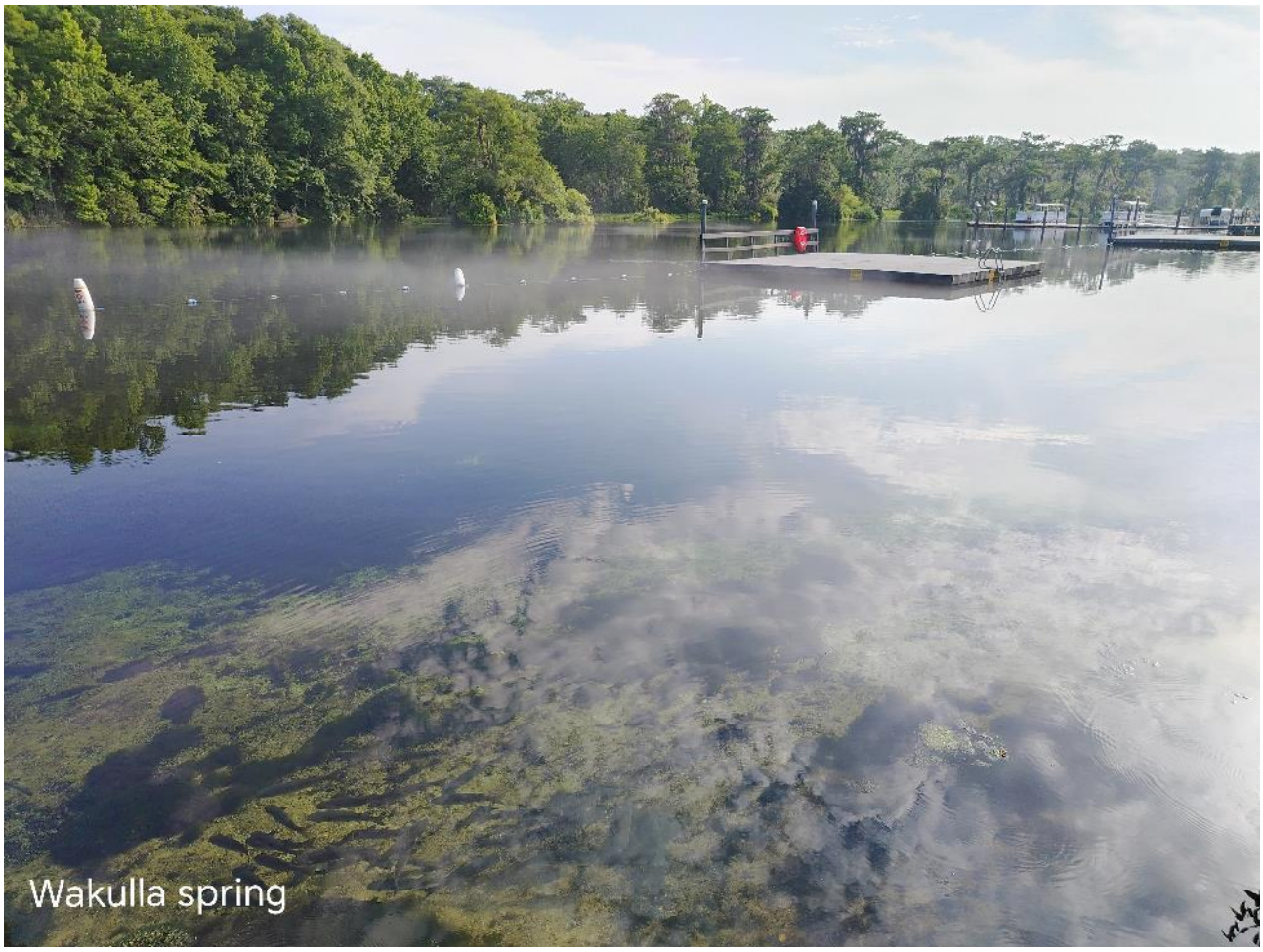
Wakulla Springs cave system map (Bill Stone, 1988) http://www.caveatlas.com/systems/system.asp?ID=84

Pictured are George Christie, geologist Herman Gunter, Gerald M. Ponton and diving team member J. Clarence Simpson (FGS Photo)

Aerial photo of Wakulla Springs main vent

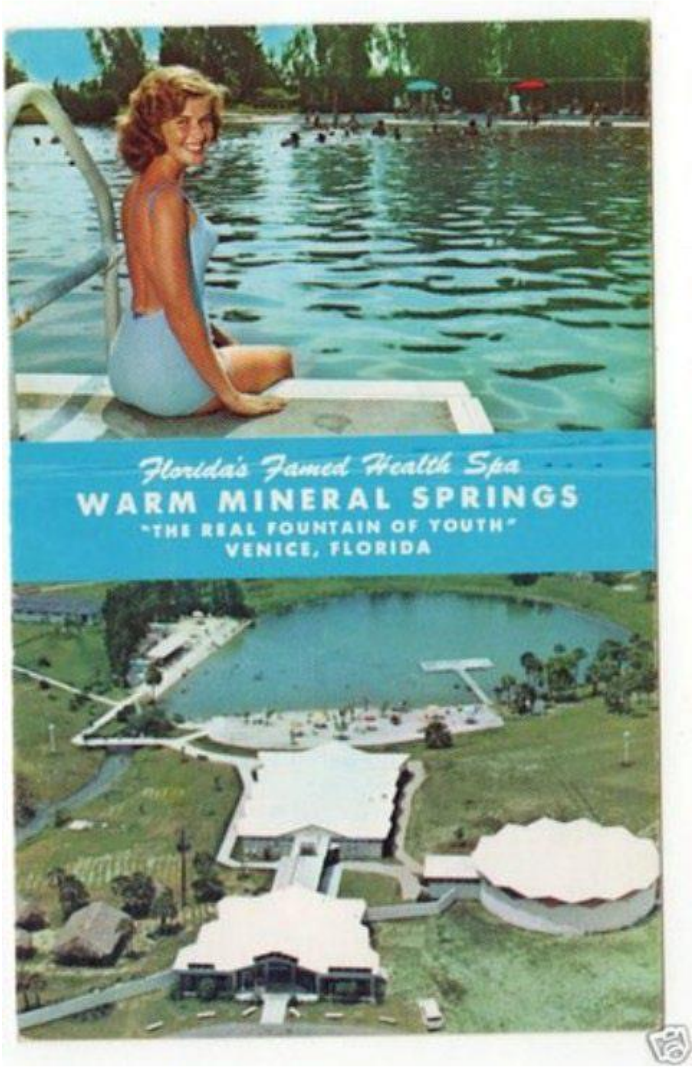


Divers preparing to recover mastodon remains from Wakulla Springs and its recovered skeleton

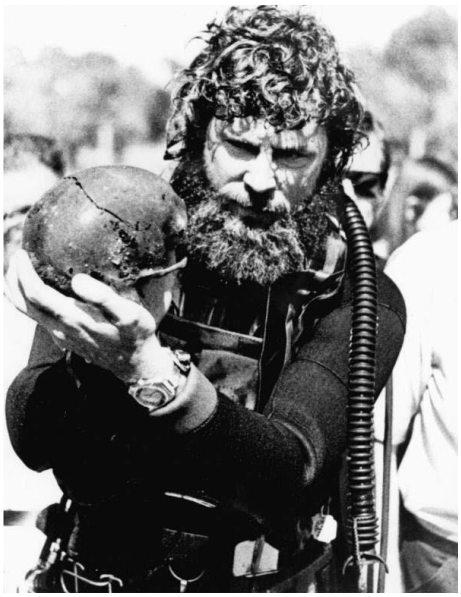


Spring in May, 2025 (photo Z. Stevanović)

MIKAS – Warm Mineral Springs



Historic Poster of Warm Mineral Springs



Marine archaeologist W.A. "Sonny" Cockrell with skull found at Warm Mineral Springs in Sarasota County (photo by Jim Purks 1973)

MIKAS – Giant Springs

Left: Giant Springs, Montana (Photo courtesy of Geary Schindel). Right: Drone photograph of Giant Springs. Courtesy of fwp.mt.gov

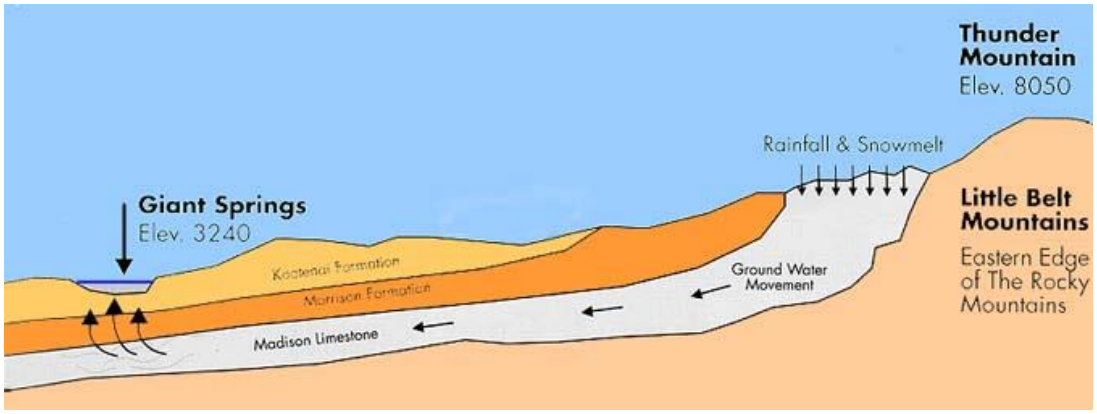


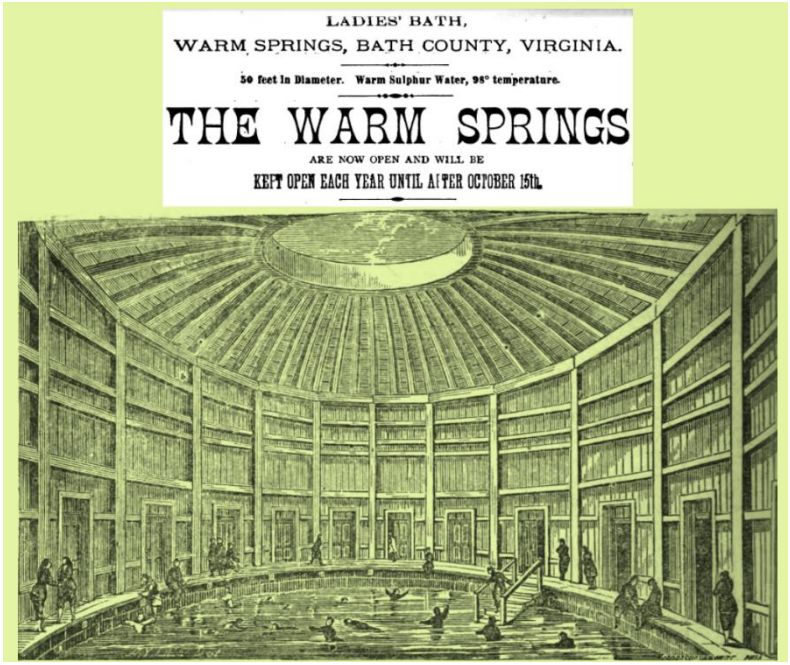
Diagram courtesy of Giant Springs Bottled Water Company

MIKAS – Warm Springs VA

Ladies' (left) and Gentlemen's (right) Pools of the Warm Springs (Courtesy of the Omni Homestead Resort)

Thermal water outflow from the Gentlemen's Pool

Past and present:



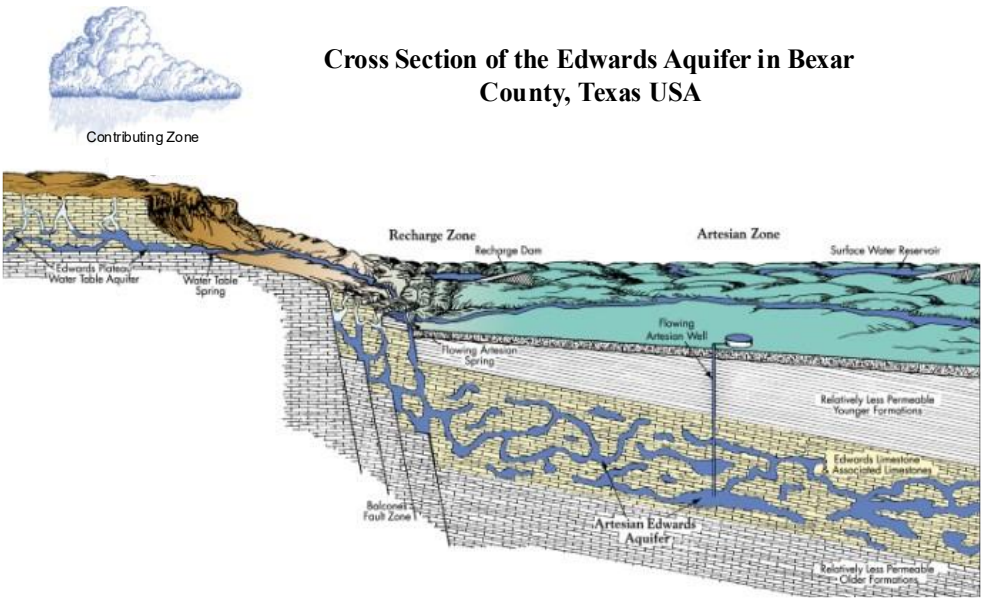
The Ladies' Bath at Warm Springs Pool advertised 98°F water source in: "The Chesapeake & Ohio Railway Directory, Containing an Illustrated History and Description of the Road," Ladies' Bath, Warm Springs, Bath County, Virginia (p.331)

Swimming pool nowadays (May, 2025)

MIKAS – Comal Springs

Comal spring and information plate at the spring site (Photo by Z. Stevanovic)

Comal Springs - Spring Run 3 (Photo by G. Schindel)



Scheme of Edwards Aquifer functioning (Courtesy of Edwards Aquifer Authority)

MIKAS – San Marcos springs

San Marcos ascending spring and formed stream (Photo by Z. Stevanović)

Google Earth View of San Marcos Springs

MIKAS – San Solomon spring

San Solomon main spring pool (San Solomon Springs from Texas Parks and Wildlife Webpage)

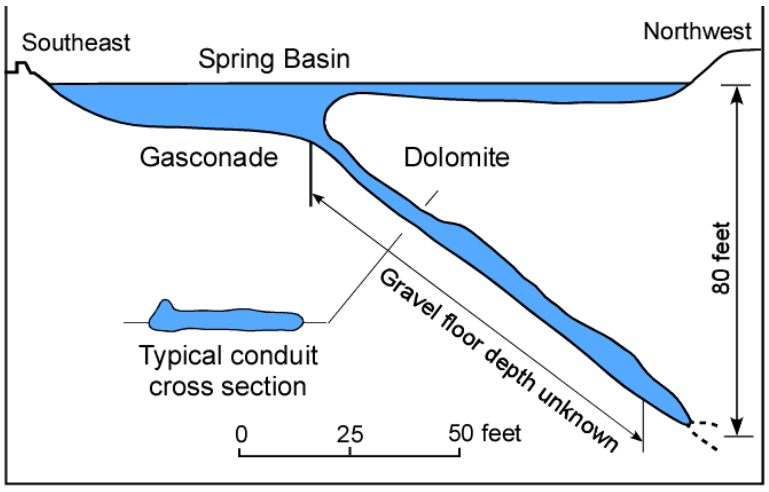
Enlarged view on Solomon Springs (from Google Earth)

MIKAS – Alley spring

Close up Google Earth image of Alley Spring rise pool and mill in the big springs area of the Missouri Ozarks

Image of Alley Spring, Missouri, and the mill that are part of the Ozark National Scenic Riverways. Visual estimate of intermediate spring discharge is provided by flow over dam on right side of mill (Photo credit: Lucas Bremer. https://www.theoutbound.com/missouri/photography/explore-alley-spring-and-mill-within-the-ozark-national-scenic-riverways/photos#photo-308145)

MIKAS – Bennett spring

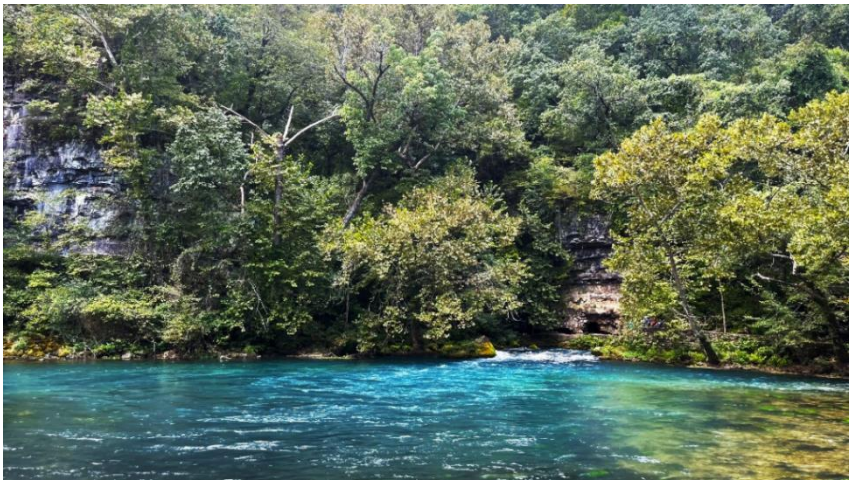


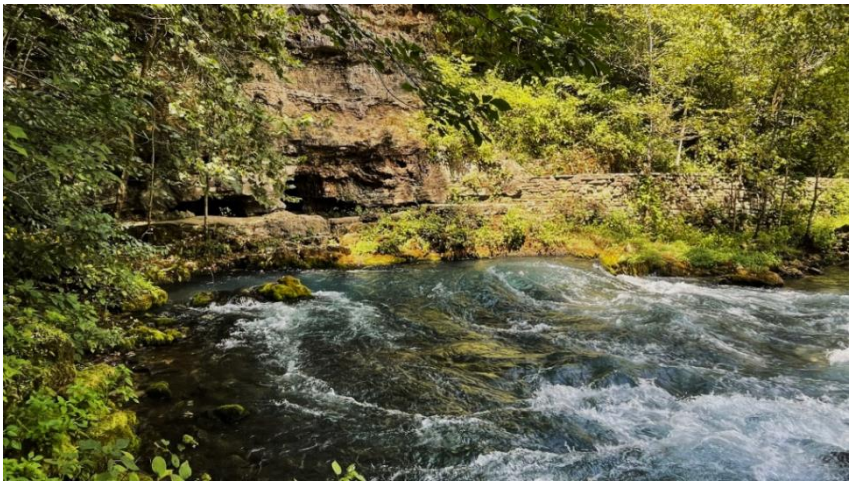
Top: Bennet Spring in Dallas County, Missouri; photo courtesy of Missouri Department of Natural Resources, in public domain. Bottom: Longitudinal cross-section through Bennet Spring. Data supplied by D. Rimbach, M. Tatalovich, and M. Grussemeyer. Modified from Vineyard and Feder, 1974/1982.

Historic image from a 1914 post card shows a crude wood structure seen here blocking the spring run from Brice Springs – now called Bennett Spring. Bennett Spring is now a Missouri state park. Photo credit: http://www.dammingtheosage.com/brice-spring-now-bennett-spring-state-park-on-the-niangua-river/

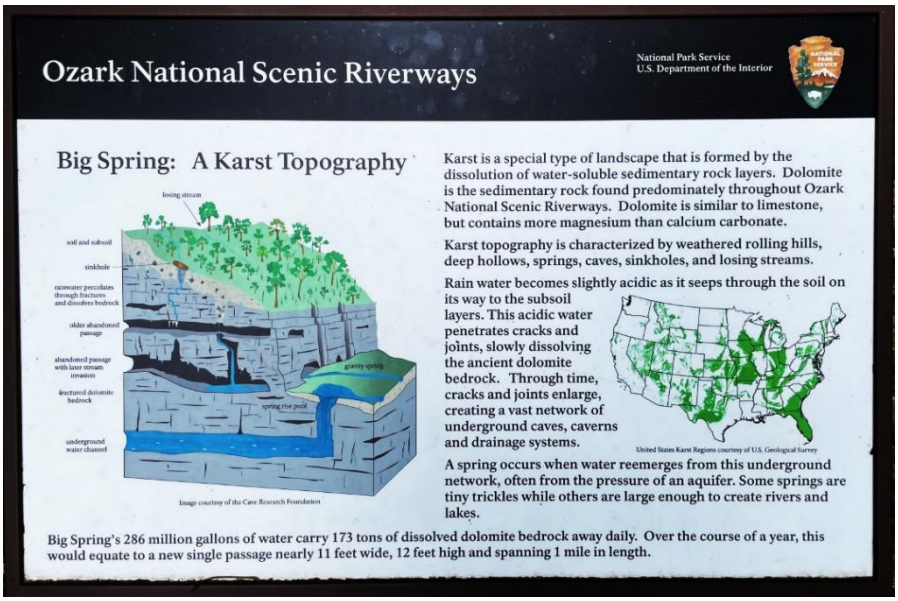
Fishermen line the bridge cheek to jowl across the outflow from Bennett Spring State Park to test their luck during a winter day. Bennett Spring State Park was previously known as Brice State Park. Image credit: https://mostateparks.com/park/bennett-spring-state-park

MIKAS – Big Spring (MO)





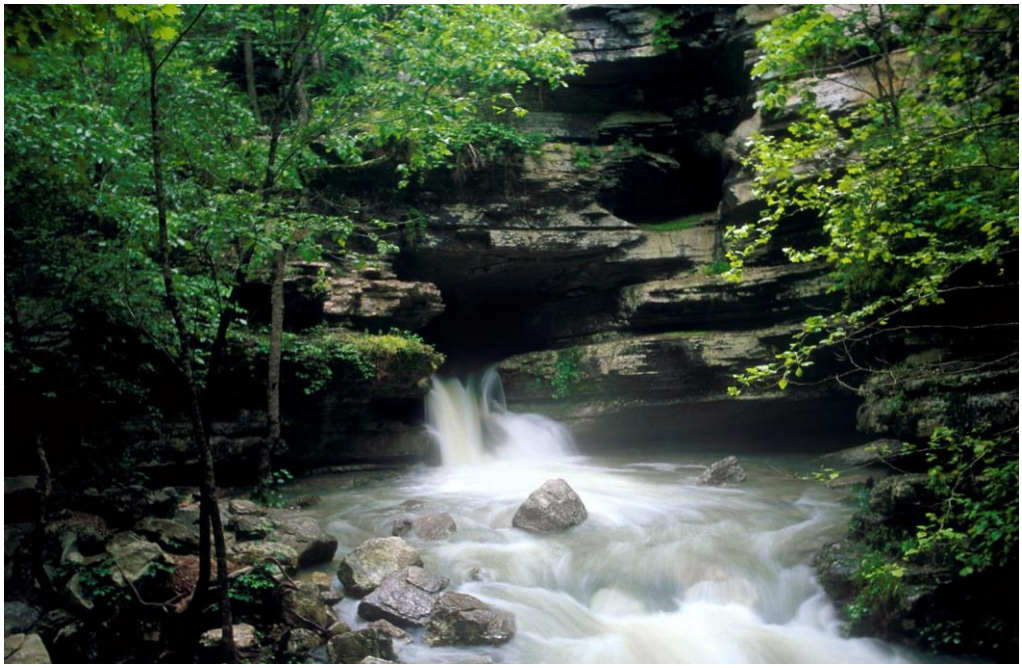
Two views of Big Spring (Photos by Neven Kresic)



Ozark National Park Service plate at the Big Spring

Big Spring, Carter County, Missouri. Ascending flow resurging from the base of a bluff in the Eminence Dolomite, where flow is into spring run to the Current River. Photo source: Patti Wheatley-Bishop in National Park Service [accessed 13.08.2023]

MIKAS – Blanchard Spring



Blanchard Spring at intermediate flow resurging as a cave stream in Blanchard Spring Caverns. An historic conduit currently dry is visible above and to the right of the existing cave stream (Photo credit: modified from Eric White)

Speleothems provide visual documentation of downward flowing recharge moving from impermeable chert layers near the roof of the cavern in the Boone Formation to a lower level in the cave (Photo credit: https://arkansaslivingmagazine.com/article/underground-arkansas-discover-blanchard-springs-caverns/#prettyPhoto/3/)

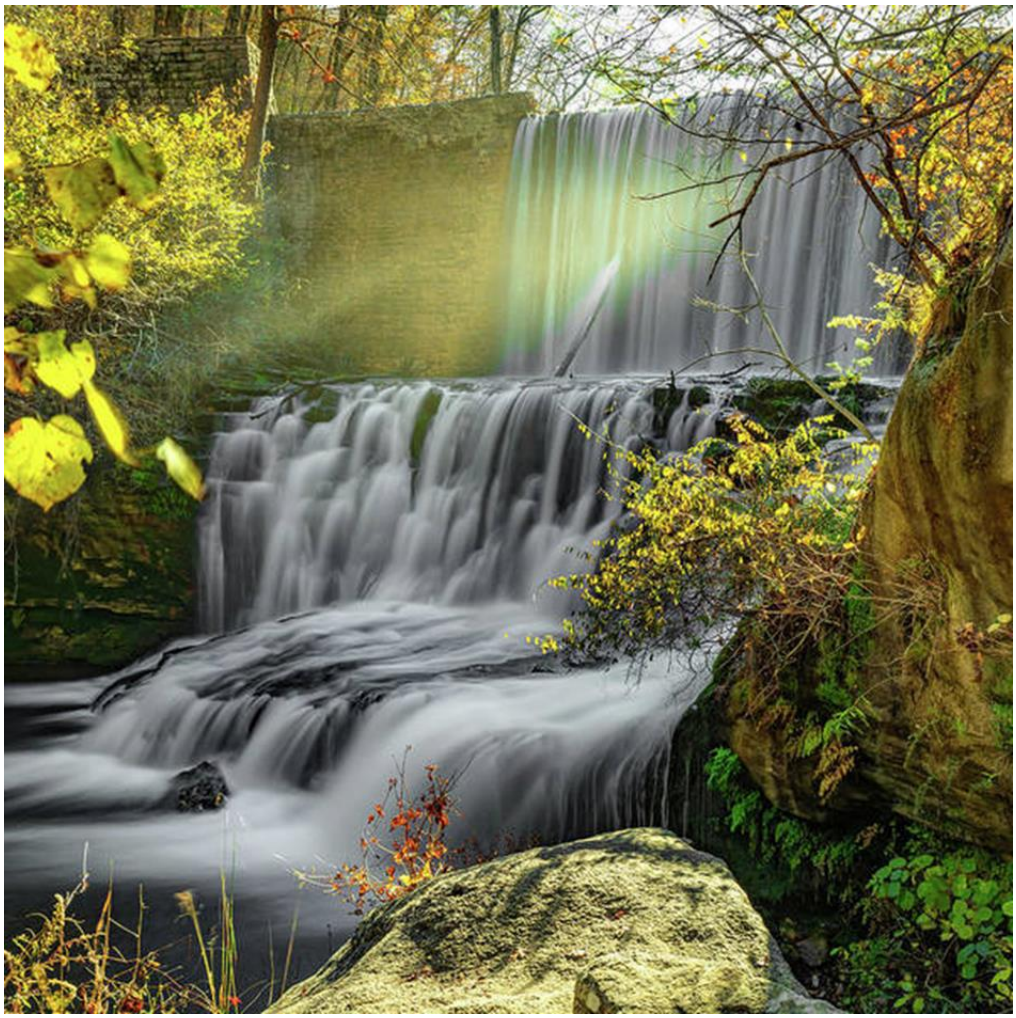


Image of overflow of dam at Mirror Lake downstream from Blanchard Spring along the spring run

MIKAS – Blue Spring (MO)

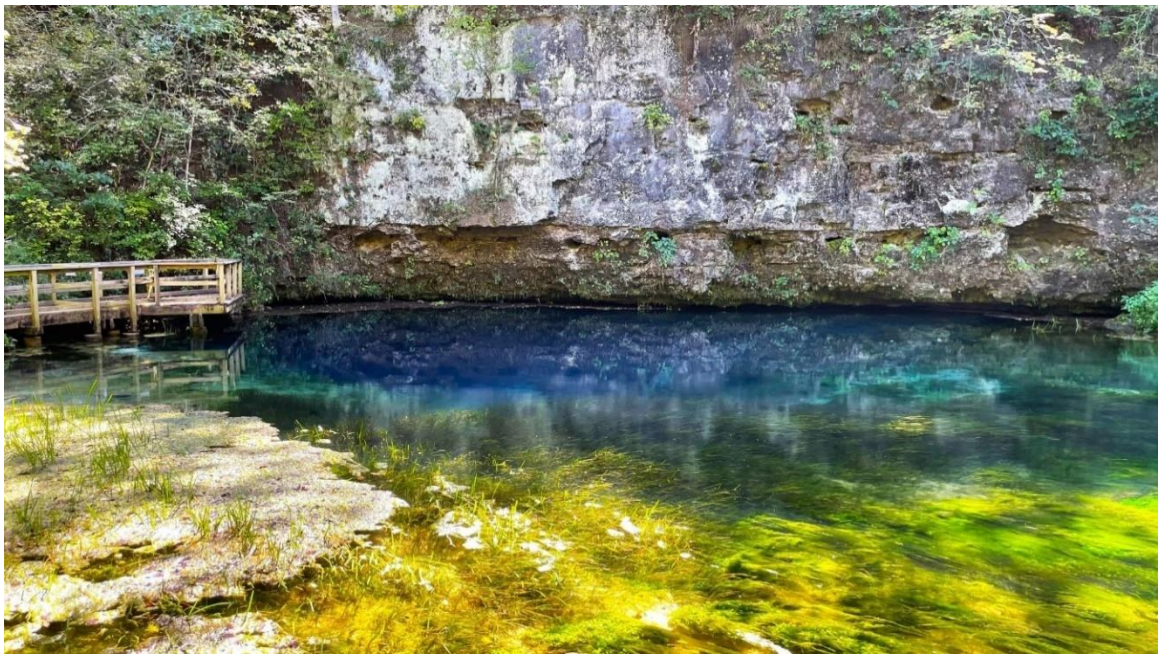


Image of Blue Spring (Shannon County) Missouri, during low-flow. Blue Spring has the reported deepest formation of an Ozark spring in the Missouri Ozarks (Photo by Neven Kresic)

Whereas the sign leading to Blue Spring boasts that it's the eighth-largest spring in Missouri, the Missouri Department of Conservation asserts it's now the sixth-largest (Photo by Neven Kresic)

Photo looking upward toward the surface resurgence showing a cave diver moving vertically downward along the spring bore, a distance of about 85meters. Diving in this spring requires a research permit, and dive times greater than 17 hours to reach the full extent of the mapped cave (Photo credit: https://www.ocda.org/exploration/projects/photo-of-the-month/)

MIKAS – Greer Spring

Image of Greer Spring resurging in its rise pool (two hundred yards down gradient of the bluff cave resurgence) at greater discharge in the big springs area of the Missouri Ozarks (Photo by Neven Kresic)

Ground level image of Greer Spring resurgence from a bluff in the Gasconade Formation during low flow (Photo by John Van Brahana)

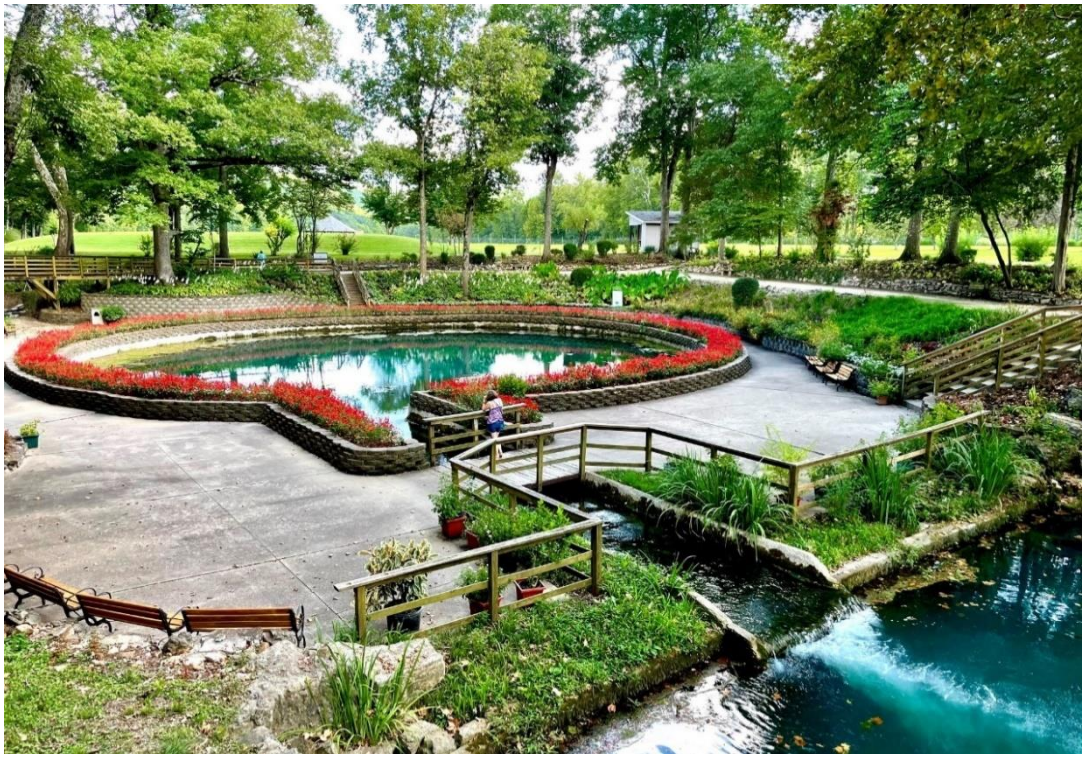
MIKAS – Mammoth Spring

Southern outlet from Mammoth Spring rise pool showing intermediate discharge (Photo by Neven Kresic)

Hydroelectric dam at the distal end of the spring run of Mammoth Spring, Arkansas, where the spring water flows over the dam and creates the headwaters of the Spring River. The hydroelectric aspects of the structure are no longer operational (Photo by Neven Kresic)

MIKAS – Blue Spring (AR)

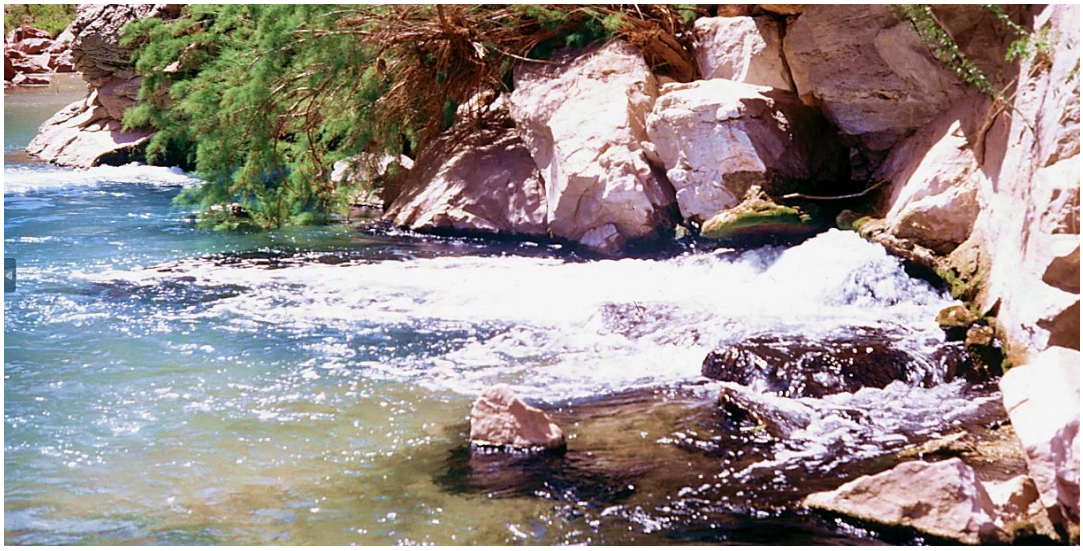
Enlarged Google Earth View of Blue Spring in Arkansas



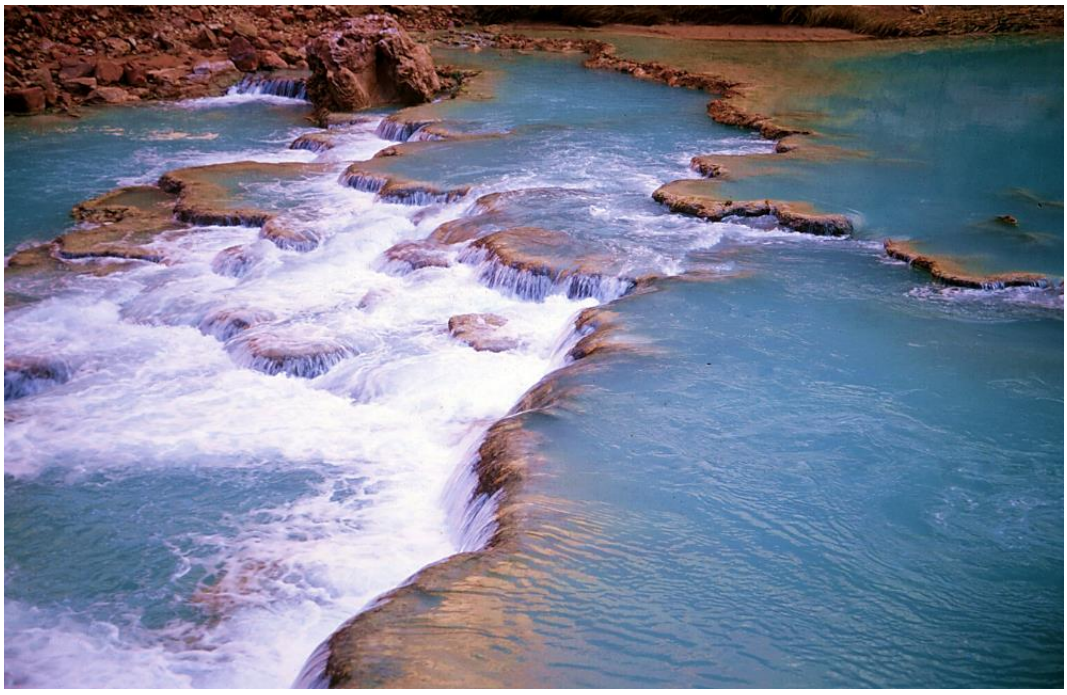
Blue Spring basin with the overflow to the trout lagoon (Photo by Neven Kresic)

The Bluff Shelter at Blue Spring with Native American pictographs is listed on the National Register of Historic Places (Photo by Neven Kresic)

MIKAS – Blue Spring (AZ)



View southeast toward upper and middle spring of Blue Spring, Little Colorado River (Courtesy of USGS, collection by George Billingsle)

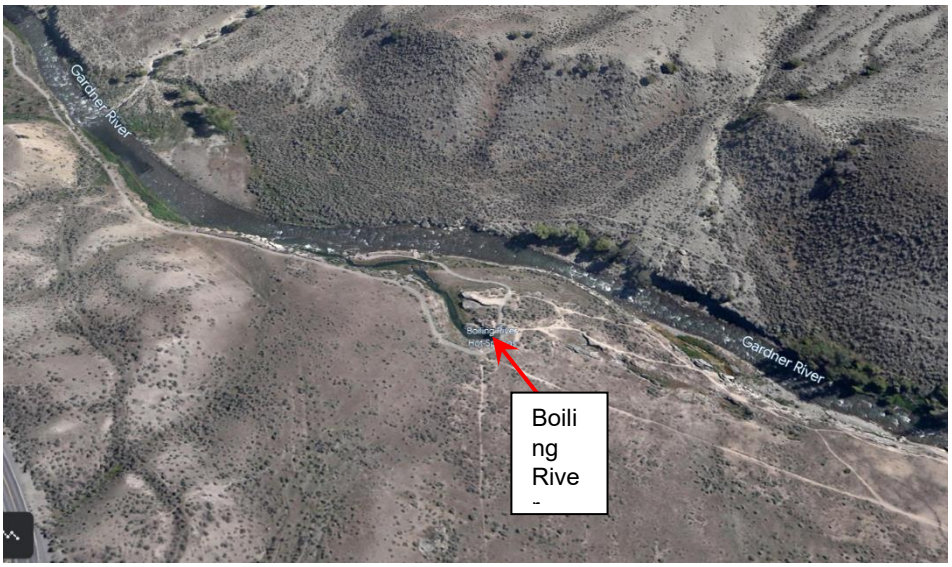


View east toward normal blue Little Colorado River spring water flowing over travertine dam deposits, just upstream of Big Canyon. Courtesy of USGS, collection by George Billingsle.

Confluence of the Little Colorado River (blue color) and the Colorado River (green color). Screenshot from a video Virtual Tour—Grand Canyon, AZ Dams Threaten the Little Colorado River, produced by EcoFlight in cooperation with Grand Canyon Trust. Available at https://www.grandcanyontrust.org/little-colorado-river-dam-proposals

MIKAS – Boiling River Springs (Yellowstone)

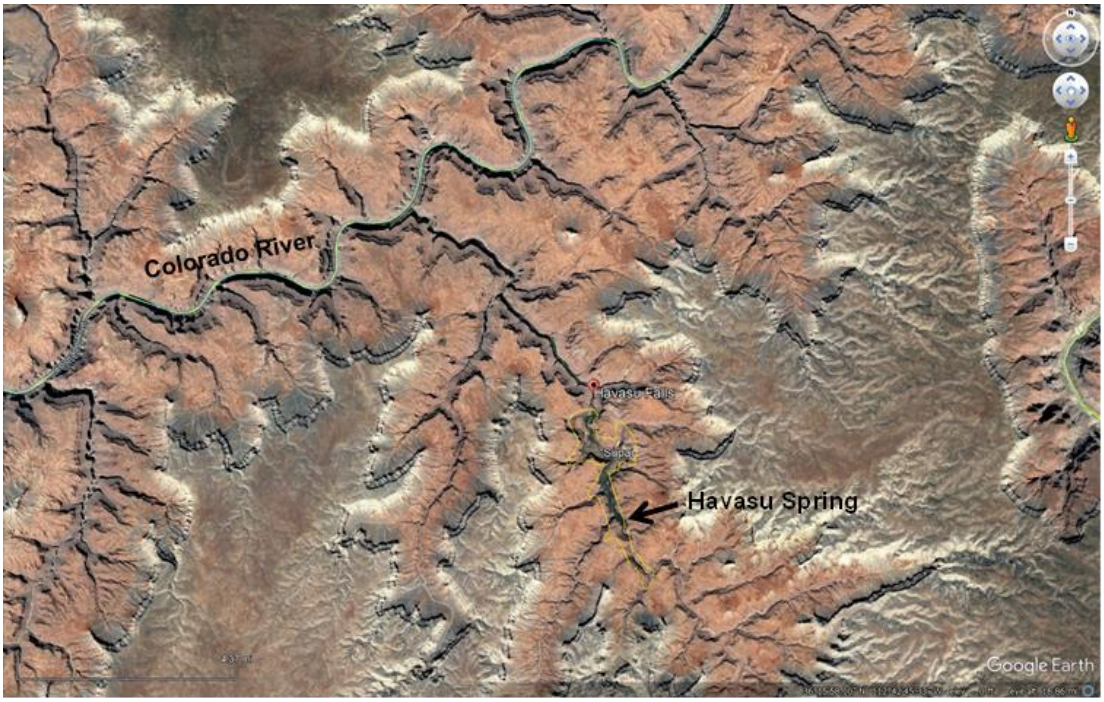
Left: Spring of the Boiling (Hot) River. Right: Boling River (seen in the left of the photo) cascading into the Gardiner River with bathers enjoying in the mixing zone of two rivers (71^{O}C temperature of the Boiling River is too high for bathing)



Google Satellite Images of the Boiling River Spring, Yellowstone National Park

MIKAS - Havasu Spring

View southeast toward Havasu Falls from trail in Cataract Canyon (Courtesy of USGS, collection by George Billingsle)



Google Earth satellite image of the Havasu Springs near Supai Village, Grand Canyon, Arizona

Travertine pools below Havasu Falls, Havasu Creek, Cataract Canyon (Courtesy of USGS, collection by George Billingsle)