

Friends of Rock Bridge Memorial State Park
Response to Canton Estates Proposal
Columbia P&Z Meeting, April 8, 2021
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The Friends of Rock Bridge Memorial State Park (FoRB) is a group of volunteers that formed 30 years ago to promote the understanding, enjoyment, and preservation of Rock Bridge Memorial State Park. We work closely with, but are separate from Rock Bridge Memorial State Park. Our website - <http://friendsofrookbridgemsp.org> – has information on our programs, projects, and mission.

We oppose the current development plan for Canton Estates, situated on the southeast corner of Gans and Bearfield Roads, because of its potential impact on the Gans Wild Area, and on the Gans and Clear Creeks.

The Gans Wild Area

The mission of the Missouri state park system, a division of the Missouri Department of Natural Resources (DNR), is to preserve and interpret the state's most outstanding natural landscapes and cultural landmarks, and to provide outstanding recreational opportunities compatible with those resources. As part of that mission the DNR determined that the permanent preservation of large areas of undeveloped state park land as wilderness was necessary to provide opportunities for solitude and unconfined recreation, as a reserve for native species and ecological communities for scientific study, and for its own intrinsic worth. These areas are intended to be free of any influences other than those of nature. With few exceptions, even park staff are prohibited from using any tools that might disturb the peace and quiet.

There are just twelve places in the state of Missouri that meet these wild area criteria. The Gans Creek Wild Area is one of those twelve. The state park's website describes it like this: "The solitude and scenic vistas of the 750-acre Gans Creek Wild Area allow visitors to forget the bustling city of Columbia is only a few miles away. Small streams dissect the hills and flow into Gans Creek, which is surrounded by high bluffs. The bottom and sides of Gans Creek are often solid bedrock while other stretches of the stream have gravel bars. Except during heavy rain events, the water flows slowly over riffles and into pools. Spring wildflowers are abundant. Basswood and walnut trees grow on moist, shaded hillsides. Scattered white oaks grace more open forested area. The rocky bluff tops have small glade openings filled with grasses and wildflowers. Coyote and Shooting Star bluffs provide vistas of hills and trees as far as the eye can see."



View from Shooting Star Bluff

Due to its proximity and proposed density, the Canton Estates Development can upset the goals of solitude and preservation of nature of the wild area in a number of ways. Noise from traffic, and lawn and garden equipment, will interrupt the sense of solitude this recreational experience is supposed to provide. Invasive plants will have an easier time gaining a foothold in the park. Free roaming pets may harass and kill wildlife. Light pollution will affect the natural behavior of insects, bats, and night hunting birds. The increased visitor pressure from 100+ next door neighbors will overwhelm the resources of an area intended for very light visitor traffic. This can lead to more people lost in an area not meant for inexperienced hikers (with more park staff time spent rescuing them), more wear and tear on the trails, and more disruption of wildlife. And those vistas of hills and trees? While the development plan does keep homes away from the edge of the park, they will be sitting on top of the ridge that separates the Gans and Clear Creeks. They may be quite easily visible from the bluffs along the Gans.



This is a screen shot from Google Earth sloping towards the north and the Canton Estates area. Note the changed prospect from Shooting Star Bluff and the potential impact on park visitor's "wild" area experience.

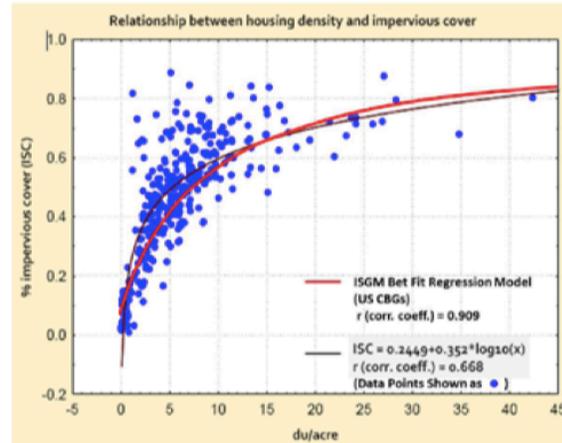
Gans Creek and Clear Creek

There are only 44 streams that are Outstanding State Resource Waters in Missouri. These are waters with significant aesthetic, recreational, or scientific value that have been designated outstanding by the Clean Water Commission. Gans Creek in Rock Bridge Memorial State Park is one of those 44 streams.

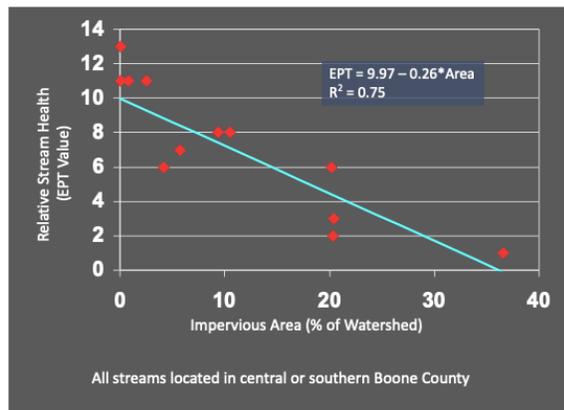
The Gans flows from east of 63, through the city's Southeast Regional Park, through the Gans Wild Area, and then under 163 where it joins Clear Creek to become the Little Bonne Femme.

The 65 acre Canton Estates plat can be roughly divided into three sections, a northern section that drains into tributaries to Clear Creek, a middle section that drains first into a small lake on a property on the west side of Bearfield Road, and from there into Gans Creek, and a southern section that drains into tributaries leading to the Gans. In the case of the southern section, the development plat has clearly taken steps based on the sensitive area criteria, stepping back from the slopes on the southern edge of the property, and building at a density much closer to the county's A-2 zoning of one house for every 2.5 acres. We note that, and appreciate the consideration of water quality impacts in that part of the plan.

However, that means that the remaining 100 or so units are on about 40 acres, a density of 2.5 units per acre. A model relating dwelling units to impervious surface (cited in: Ramsey, Kevin, and Aaron Poresky, 2013. A Place-based Tool for Assessing Cumulative Impervious Surface Outcomes of Proposed Development Scenarios. URISA Journal 25(2): pp 25 – 38) predicts a density of 20-40% in the middle and northern sections of the development.



The CA study relating dwelling units per acre to impervious surface in Ramsey and Poresky's paper



Studies going back 50 years have shown consistently that impervious surface above 10% results in a dramatic decline in stream health as measured by counts of aquatic macroinvertebrates. These play a critical role in the food web for fish as larvae and for birds and bats as winged adults, so their loss impacts other groups of wildlife. The loss of these groups can affect the health of populations of top predators, or of species that keep leaf eating insects from defoliating trees.

In this figure, stream health is measured as sensitive macroinvertebrates – stoneflies, mayflies, caddisflies - in a stream sample.

Columbia and the Park

The primary source of funding for the state park system is half of the Parks, Soils and Water Sales Tax. The tax was first approved by voters in 1984, and has been reapproved by voters four times, with a majority of **80%** of the vote in 2016.

Since 2017, the number of visits (car trips, with number of passengers estimated) in Rock Bridge Memorial state park has ranged from around 333,000 to just over 700,000. On average a third of those visits are from out-of-state. And for every dollar the state park system spends on parks, Missouri's economy sees a \$26 return on investment.

Every year, thousands of central Missouri children learn about streams, wildlife, and habitats through school visits and programs taught by park staff and volunteers. That includes the hundreds of low-income kids that visit every summer to participate in an Urban Populations Outreach Program run by FoRB and supported by a grant from the Missouri Parks Association.

The state park system is extraordinarily popular with the residents of Missouri. This park is an economic driver for Columbia and central Missouri. This park plays a critical role in educating our children about nature and creating the next generation of stewards.

Columbia has a responsibility to protect the park because we must be good stewards of the park we have been given by the citizens of Missouri, because of the economic benefits it provides to our community, and to set a good example for our own children.

We Columbians already recognize that responsibility. We invested in the protection of Gans Creek and the Wild Area by setting aside part of the land purchased for the Southeast Regional Park to act as a buffer for the creek and the wild area.

In 2014, the City of Columbia approved the Parkside Development on the northwest corner of the park with provisions that required it to keep impervious surface under 15% in order to protect the Little Bonne Femme. We believe that the Gans and Clear Creek are entitled to at least the 15% level set by the City with the Parkside development. And, because the Gans is an outstanding state resource water, it deserves an even higher level of protection.



We would also like to note, that we did not oppose the Clear Creek Estates development, planned under the county's A-2 zoning because we did not believe it would cause persistent long-term damage to Clear Creek. As proposed, Canton Estates is a much more intensive transformation of the landscape than either of the previous developments in the area next to the park.

The Friends of Rock Bridge Memorial State Park requests that the commission set a 15% limit for areas draining to Clear Creek and an even lower level of impervious surface for the parts draining to the Gans, that development be moved even further away from the park boundary, and that a strict Homeowners Association policy similar to that of Parkside Estates be part of the development covenant.

We do not believe that economic development of the area around the park needs to be incompatible with protecting it. We know this because it has already been done with Parkside Estates and Clear Creek Estates. We respectfully ask that you send the Canton Estates plan back to the drawing board.