

Perry County road project offers protection for the grotto sculpin

Highway projects can protect existing habitat quality, improve endangered species habitat and protect sensitive resources. In Perry County, which has the most karst (cave landscape) sinkholes and the longest known cave system in the state, a newly constructed two-mile highway did just that. The cave system in the vicinity of the project is habitat for many unique creatures including the grotto sculpin, an endangered species, which is only found in Perry County.

Local cave experts brought to the attention of MoDOT that this highly sensitive cave with sinkholes was located in a proposed new highway alignment. Because of the hundreds of sinkholes in Perry County, much of the water recharge area for the cave was already subject to agricultural sediment runoff and chemical infiltration, and the construction of a large new highway in the area had the potential to increase those negative effects on cave water quality, while putting further stress on the sculpin.

MoDOT pulled together a stakeholder group consisting of federal, state and local government agencies and local cave experts to address the potential for negative impacts to ground water quality and the cave. As a result, MoDOT implemented water quality protection measures including appropriately sized, rock-lined, flat-bottomed ditches, grass swales, sediment basins and silt fences for extra treatment of highway runoff before it could leave MoDOT right of way. MoDOT treated almost five acres of land prior to stormwater releases onto the surrounding landscape and protected a sink hole from future development. As a result, water quality improvements are expected to enhance the grotto sculpin habitat.

But that's not all. Based on advice from local caving experts, the distance from the surface to the cave ceiling below the original proposed alignment was verified. This led to a shift in the initial alignment to an area where the cave was farther from the surface, thus protecting the integrity of the cave. The outcomes have been the protection of a federally listed species and irreplaceable cave habitat, the growth of partnerships and trust between federal, state, local governments and conservation agencies and organizations, and a transportation facility of which to be proud.

For more information, contact:

Bree McMurray, Senior Environmental Specialist, 573-526-0606

Eric Krapf, SE District Transportation Project Manager, 573-472-5261