ABSTRACT. Let M be a torus bundle over S^1 with an orientation preserving Anosov monodromy. The manifold M admits a geometric structure modeled on Sol. We prove that the Sol structure can be deformed into singular hyperbolic cone structures whose singular locus $\Sigma \subset M$ is the mapping torus of the fixed point of the monodromy. The hyperbolic cone metrics are parametred by the cone angle α in the interval $(0, 2\pi)$. When $\alpha \to 2\pi$, the cone manifolds collapse to the basis of the fibration S^1 , and they can be rescaled in the direction of the fibers to converge to the Sol manifold.