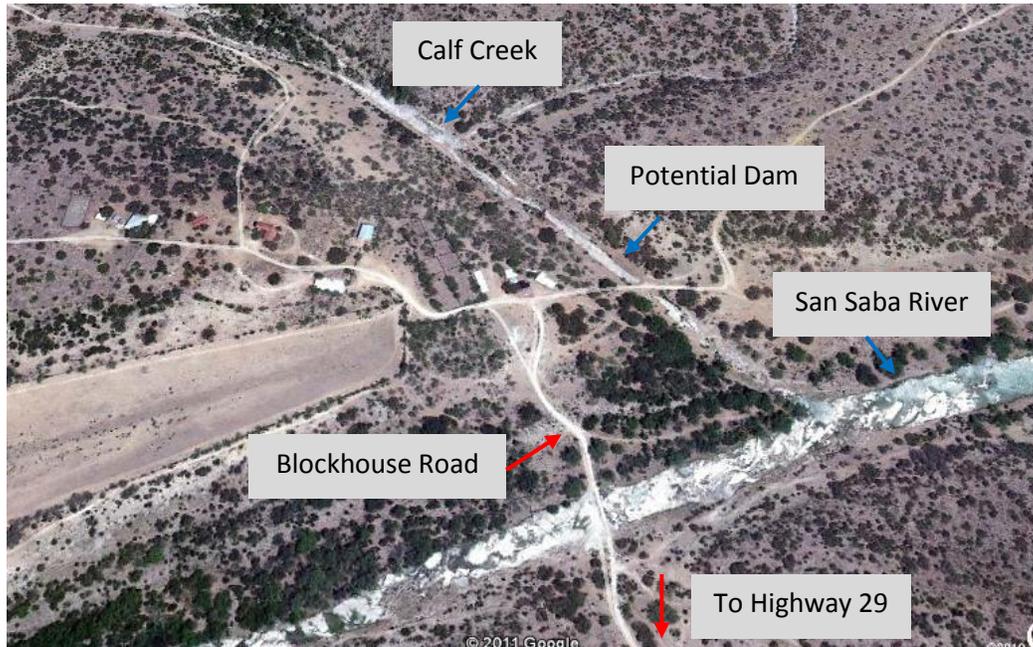


## Hill Country Conservancy Project

### *OBJECTIVE:*

To execute a feasibility study on the possibility of creating a reservoir at Blockhouse Ranch in Mason County, Texas.



### *BACKGROUND:*

Blockhouse Ranch is located in the Northwest corner of Mason County close to Brady, Texas. Typically Calf Creek runs through the ranch, feeding into the San Saba River. However, due to the low flows in Calf Creek this tributary does not contain enough water to sustain the livestock on the ranch. I will be investigating the feasibility of using a dam to turn Calf Creek into a reservoir in order to increase the ranch's water supply.

### *OUTLINE:*

I will delineate the watershed surrounding the ranch and Calf Creek, and obtain relevant rainfall data from gauges in the surrounding area as well as any available data concerning properties of the soil. There will most likely not be any streamflow data available for Calf Creek since it is a relatively small tributary in an isolated area. However, using the rainfall data and soil properties, I should be able to estimate flows by approximating the amount of infiltration based on the soil properties and subtracting this from the available rainfall data. My ultimate goal will be to determine the potential storage capacity of the reservoir that will be created by damming Calf Creek. I will obtain this data from the USGS and NHD online databases.