Mountains Kulon Progo is an area that has potential as a source of water. One of the sources of water used is spring. The appearance of springs formed springs zone at the foot of the slope with a height of 700-800 m. Zone springs as a source of water supply in a watershed. The study was conducted in the village of Jatimulyo, District Girimulyo, Kulon Progo, Yogyakarta. The study area is located in the sub-sub-watershed with an area of 1825.3450 hectares Sumitro. The study was conducted to determine the potential of the water and the direction of conservation in Sub-Sub-watershed Sumitro.

Conservation is based on the potential of water in Sub-Sub-watershed Sumitro. Water potential is estimated based on the availability of water, water needs, and the criticality of water. Affixes the boundary region, the area loose, and their catchment areas is expected to table the existing criteria in Candy PU No. 2 Year 2013 on Guidelines for Preparation of Water Resources Management Plan. The method used in the study, the method of survey and mathematical methods of water balance approach. Results of the analysis with the method used to determine the conservation methods in the study area.

Results of the study, debit Wellspring Goa Sumitro of 22,824 million L / year, the availability of water for 4,843,633,480 L / year, the water needs 288 272 508 L / year, water criticality 5.95%, and the condition of the catchment medium. Thus, conservation methods used in Sub-Sub DAS Sumitro, the method of vegetative and mechanical methods. Conservation-based methods include, alley cropping, intercropping, mulching, reforestation, bersaluran gulud terrace, patio benches bersaluran slope, infiltration wells and building water reservoir. The conservation methods applied by conservation directives maps.

**Keywords:** Sub-Sub Watershed, Potential Water, Conservation