EFFECT OF IMPLEMENTATION OF SPATIAL REGIONAL SPATIAL PLAN CONSERVATION OF WATER RESOURCES IN THE AREAS OF STUDIES KOTA BATU JAWA TIMUR

[1]PUSPA PERMANASARI, [2]MUHAMMAD BISRI, [3]AGUS SUHARYANTO

[1]Water Resource Department Batu Region
[2]Water Resources Engineering Brawijaya University Malang Indonesia
[3]Civil Engineering Brawijaya University Malang, Indonesia

This study aimed to evaluate the condition of existing land use in years 2010 with the implementation of the Spatial Plan Batu years 2003 to 2013 to determine the effect of land use on water resources conservation in Batu. The method used in this study is regression analysis and Analysis Hierarky Proces. The results showed there is a dominant influence of land use on water resources conservation and analysts have a different outcome each district. Existing land use conditions in 2010 have an influence on the decline in power of absorbing rainwater into the soil. It can be seen from the declining value of the infiltration in Batu declined 34.915.235 m³ / year or 13% of land use in 2003. To ensure the conservation of water resources in terms of preventing the destructive force of water, the ground water reserves in 3 (three) districts in the town of Batu need to consider land use contained in the spatial plan that no longer have the conversion of land to land up which can lead to reduced capacity and water potential capacity.

I. RESEARCH VARIABLES

Variable is defined as everything that will be used as the object of study, can also mean the variables are factors that play a role in an event or symptoms to be studied. Determination of variables used in this study based on the formulation of the problem taken. The variables used in this study are as follows:
a. Infiltration becomes the dependent variable in the analysis and the indicators taken are annual rainfall and the area of land cover.
b. Spatial use pattern relates to area function where overlay is done with land suitability map.
c. Types Land use consists of wake and non-built land (rice fields, green open spaces, fields, shrubs, forests) affect rainwater absorption into the soil.



II. ANALYTIC HIERARCHY PROCESS (AHP) METHODS

To know the respondent's opinion about the Influence of Implementation of Spatial Plan on Water Resource Conservation through questionnaire which will be known through AHP.

The method can be used to measure the participation of stakeholders in formulating and determining policies based on mutual interest (Akhwadhy, 2002).

The tools required in the process of AHP analysis in a questionnaire that has a numerical value instead of the human perception of comparing relative ratios and finally with a synthesis is determined which element has the highest priority.

Both of these analyzes are used to determine the extent of the influence of water resources conservation in Batu city on the implementation of RTRW.

III. ACKNOWLEDGMENTS, APPENDICES AND REFERENCES

ACKNOWLEDGEMENTS

Funding for this work was provided by water resources department Batu Region

REFERENCES

[1] Asdak, C. 2004. Hidrologi dan Pengelolaan Daerah Aliran Sungai. Gajah Mada University Press: Yogyakarta.
[2] Bisri, Mohammad, 2008, Konservasi Air Dalam Perencanaan Ruang, Malang, Penerbit Tirta Media

[3] Bisri, Mohammad, 2009, Pengelolaan Daerah Aliran Sungai, Malang, Penerbit Asrori

[4] Direktur Penatan Ruang wilayah Tengah, 2001 Pemanfaatan Sumber Daya Air Melalui Pendekatan Penataan Ruang, Ditjen Penatan Ruang Departemen Permukiman dan Prasarana Wilayah

[5] J. Kodoatie Robert dan Sjarief Roestam, 2010, "Tata Ruang Air". Yogyakarta : Penerbit Andi

[6] Jayadinata, Johara .T. 1999. Tata Guna Tanah dalam Pedesaan, Perkotaan dan Wilayah. Institut Teknologi Bandung : Bandung

★★★