OPTIMALISASI PENJADWALAN PADA PEKERJAAN STRUKTUR DENGAN PROGRAM APLIKASI *PRIMAVERA PROJECT PLANNER P3*
Studi Kasus Proyek Pembangunan Gedung Layanan Pembelajaran Fakultas Isip Universitas Jendral Soedirman

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ABSTRAK

Air merupakan salah satu sumber kehidupan umat manusia. Adanya pertumbuhan penduduk yang terus meningkat mengakibatkan terjadinya pemanfaatan sumber air semakin tinggi. Hal tersebut tentu akan mempengaruhi ketersediaan air di wilayah Kota Yogyakarta. Neraca air merupakan perbandingan antara potensi ketersediaan air dengan kebutuhan air di suatu tempat dalam periode tertentu. Analisis neraca air berguna untuk mengetahui jumlah kelebihan air (surplus) atau kekurangan air (defisit) agar pemanfaatan air dapat diatur sebaik-baiknya. Perhitungan dilakukan dengan menganalisis data curah hujan 10 tahunan menggunkan Metode Poligon Thiessen untuk memperoleh nilai curah hujan rerata. Perhitungan debit tersedia dihitung menggunakan Metode F.J. Mock. Debit andalan dihitung dengan keandalan 80% dari data debit 10 tahun, data debit diurutkan dari nilai terbesar hingga terkecil, sehingga diperoleh nilai probabilitas 80% dari interpolasi urutan data tersebut. Kebutuhan air dihitung berdasarkan standar perencanaan irigasi (KP-01).Hasil dari penelitian menunjukkan bahwa ketersediaan air rerata Sub DAS Code Yogyakarta adalah 527,92 lt/dt/bulan. Berdasarkan hasil analisis terjadi defisit air tertinggi pada bulan Oktober ke-1 sebesar 278,80 lt/dt dan defisit terendah pada bulan Juli ke-2 sebesar 73,01 lt/dt. Namun, ketersediaan air pada bulan tertentu cukup melimpah, sehingga perlu dilakukan kajian khusus agar air tidak terbuang dan dapat digunakan untuk menutupi kekurangan air pada bulan kering.

Kata kunci*: FJ Mock, ketersediaan air, kebutuhan air, neraca air, Poligon Thiessen, sungai code*

SCHEDULING OPTIMIZATION ON STRUCTURE WORK WITH PRIMAVERA PROJECT PLANNER APPLICATION PROGRAM P3
Case Study of the Learning Service Building Project, Faculty of Social Sciences, Jendral Sudirman University

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ABSTRACT

Water is one of the sources of human life. The population growth continues to increase resulting in higher utilization of water sources. This will certainly affect the availability of water in the city of Yogyakarta. The water balance is a comparison between the potential availability of water and the water demand in a place in a certain period. Water balance analysis is useful for knowing the amount of excess water (surplus) or water shortage (deficit) so that water utilization can be regulated as well as possible. The calculation is done by analyzing the 10-year rainfall data using the Thiessen Polygon Method to obtain the average rainfall value. The available discharge calculation is calculated using the F.J. Method. Mock. The mainstay discharge is calculated with 80% reliability from the 10-year discharge data, the discharge data is sorted from the largest to the smallest value, so that the probability value is 80% from the interpolation of the data sequence. The water requirement is calculated based on the irrigation planning standard (KP-01). The results of the study show that the average water availability of the Yogyakarta Code Sub-watershed is 527.92 lt/sec/month. Based on the results of the analysis, the highest water deficit occurred in October 1 at 278.80 lt/sec and the lowest deficit in July 2 at 73.01 lt/sec. However, the availability of water in certain months is quite abundant, so it is necessary to conduct a special study so that water is not wasted and can be used to cover water shortages in dry months.

Keywords*: FJ Mock, water availability, water demand, water balance, Thiessen polygon, code . river*