

**ABSTRAK**

*Judul : Analisis Perbandingan Biaya & Waktu Metode Diversion Serta Dewatering Pekerjaan Box Culvert Pada Proyek Pembangunan Waduk Cakung Timur, Nama : Dewitri Asti Ifo HS, Nim : 41118310032, Dosen Pembimbing : Irriene Indah Susanti, ST, MT, 2020.*

*Kondisi geografis yang rendah dan dialiri oleh banyak sungai, serta berkurangnya kolam parkir di Jakarta maka dibangunlah waduk. Namun dalam masa pelaksanaannya mengalami keterlambatan sebesar 9.74 %. Salah satu hal yang dapat dilakukan mengatasi keterlambatan yaitu dengan pemilihan metode pelaksanaan. Adapun metode tersebut yaitu diversion dan dewatering. Hasil analisis yang dilakukan diharapkan dapat menghasilkan perbandingan besar biaya dan waktu masing-masing metode.*

*Dari hasil analisis maka didapat biaya pelaksanaan metode diversion tanah dan batuan pada pekerjaan box culvert yaitu sebesar Rp. 363,935,953, sedangkan metode diversion sand bag sebesar Rp. 332,805,831. Pada pekerjaan box culvert dengan metode dewatering open pumping biaya yang dibutuhkan ialah Rp. 394,637,510. Dari data tersebut disimpulkan bahwa selisih biaya diversion sand bag dan tanah batuan Rp. 31,130,122. Sedangkan diversion tanah batuan dan dewatering sebesar Rp. 30,701,557. Serta diversion sand bag dengan dewatering sebesar Rp. 61,831,679. Hasil pengamatan terhadap waktu pelaksanaan didapat kesimpulan yaitu pekerjaan box culvert dengan metode diversion sand bag membutuhkan waktu 35 hari, dan diversion tanah batuan 49 hari, sedangkan dewatering 63 hari. Dengan perbandingan waktu yaitu metode diversion sand bag lebih cepat 14 hari dibandingkan diversion tanah batuan, dan 28 hari dibandingkan metode dewatering. Dari data tersebut dapat disimpulkan bahwa dari segi biaya dan waktu, maka metode diversion sand bag lebih ekonomis serta efisien dibandingkan dua metode lainnya.*

*Kata Kunci: Box Culvert, Diversion, Dewatering, Biaya, Waktu*

**ABSTRACT**

*Title : Analysis Of The Cost And Time Comparison Of Diversion Methods And Dewatering Of Box Culvert Work On The Cakung Timur Construction Of Reservoirs, Name : Dewitri Asti Ifo HS, Nim : 41118310032, Lecturer : Irriene Indah Susanti, ST, MT, 2020.*

*Low geographical conditions and flowed by many rivers and the reduction of retention ponds in Jakarta, then built a reservoir. However, during the implementation period, it was delayed by 9.74%. One of the things that can be done to overcome delays is to choose a method of implementation. The method is diversion and dewatering. The results of the analysis are expected to produce a large comparison of the costs and time of each method.*

*From the analysis results, the cost of implementing the method of soil and rock diversion in the box culvert work is Rp. 363,935,953, while the sandbag diversion method is Rp. 332,805,831. For box culvert work using open pumping dewatering method, the required cost is Rp. 394,637,510. From these data, it was concluded that the difference in the cost of diversion sandbag and rock soil was Rp. 31,130,122. While rock soil and dewatering diversion are Rp. 30,701,557. As well as sandbag diversions with dewatering of Rp. 61,831,679. The results of observations of the implementation time obtained the conclusion that the work of box culvert with sandbag diversion method takes 35 days, and rock soil diversion 49 days while dewatering 63 days. By time comparison the sandbag diversion method is 14 days faster than rock soil diversion, and 28 days compared to the dewatering method. From these data, it can be concluded that in terms of cost and time, the sandbag diversion method is more economical and efficient than the other two methods.*

*Key words : Box Culvert, Diversion, Dewatering, Cost, Time*

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