

**ABSTRAK**  
**PERENCANAAN SALURAN SEKUNDER**  
***IRRIGATION PROJECT PHASE 3 DI OKU TIMUR BELITANG.***  
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Perencanaan saluran sekunder pada Irrigation Project Phase 3 di Kabupaten Ogan Komering Ulu Timur, Belitang, bertujuan untuk meningkatkan efisiensi sistem irigasi dan mendukung peningkatan hasil pertanian. Penelitian ini mencakup tahapan analisis hidrologi, penentuan curah hujan rencana, perhitungan debit andalan, kebutuhan air irigasi, serta perencanaan dimensi saluran.

Data curah hujan selama sepuluh tahun (2015-2024) dianalisis menggunakan empat jenis distribusi probabilitas, yaitu Normal, Log Normal, Gumbel Tipe I, dan Log Pearson Tipe III.

Berdasarkan hasil uji Chi-Square dan Smirnov-Kolmogorov, distribusi yang paling sesuai untuk daerah penelitian adalah Log Pearson Tipe III. Nilai koefisien limpasan diperoleh sebesar 0,79 dengan intensitas curah hujan hasil metode Mononobe sebesar 220,811 mm/jam untuk periode ulang dua tahun. Hasil analisis menunjukkan bahwa dimensi saluran yang direncanakan mampu mengalirkan debit sesuai kebutuhan irigasi secara efektif, dengan mempertimbangkan efisiensi hidrolis dan kondisi topografi daerah.

Kata kunci: Irigasi, Curah Hujan, Distribusi Log Pearson Tipe III, Saluran Sekunder, Hidrologi.

## *ABSTRACT*

### ***PLANNING OF SECONDARY CHANNEL IN IRRIGATION PROJECT PHASE 3, OGAN KOMERING ULU TIMUR REGENCY, BELITANG.***

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*The planning of secondary channels in the Irrigation Project Phase 3 located in Ogan Komering Ulu Timur Regency, Belitang, aims to improve the efficiency of the irrigation system and support agricultural productivity. This study includes stages of hydrological analysis, determination of design rainfall, calculation of dependable discharge, estimation of irrigation water requirements, and design of channel dimensions. Ten years of rainfall data (2015-2024) were analyzed using four probability distribution types: Normal, Log Normal, Gumbel Type I, and Log Pearson Type III. Based on the Chi-Square and Smirnov-Kolmogorov tests, the most suitable distribution for the study area was found to be the Log Pearson Type III distribution.*

*The runoff coefficient obtained was 0.79, and the rainfall intensity calculated by the Mononobe method was 220.811 mm/hour for a two-year return period. The analysis results indicate that the designed channel dimensions can effectively convey the required irrigation discharge while maintaining hydraulic efficiency and adapting to the area's topographical conditions.*

*Keywords: Irrigation, Rainfall, Log Pearson Type III Distribution, Secondary Channel, Hydrology.*