

**THE DESIGN OF CONTROLLED LANDFILL SYSTEM IN  
EXPANSION EFFORTS OF CILEDUG LANDFILL IN CILEDUG  
LOR VILLAGE, CILEDUG DISTRICT, CIREBON REGENCY,  
WEST JAVA**

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**ABSTRACT**

*The availability lack of Waste landfill causes an increase in the amount of waste collected at Ciledug landfill, Ciledug Lor Village, Ciledug District, Cirebon Regency, exceeding the capacity of landfill so it can cause environmental pollution. Then it is necessary to land cultivation that is in conformity with its support power which is the right use. Referring to SNI 03-3241-1994 in specifying land location for determine the proper or inappropriate criteria of landfill that will be used with a controlled landfill system. The purposes of this study was to evaluate the soil that will be used and planning the management of Ciledug landfill with controlled landfill system.*

*The methods used in this study were survey and mapping, sampling method (purposive sampling) and the method of analysis (laboratory test, rating and weighting according to SNI 03-3241-1994). The purposive sampling method was used to take the samples of soil permeability parameters based on differences in using soil were vegetated land and non-vegetation land. The parameters which was assessed to know the worthinessf in Ciledug landfill was regional criteria (5 parameters), and the criteria for allowance (18 parameters) based on SNI 03-3241-1994 regarding the Procedure for Selecting the landfill..*

*The results showed that the expansion soil of Ciledug landfill was included in the worthiness criteria based on the number of regional criteria values of 4 and the number of feasibility criteria for allowance criteria of 307 with the application of technology engineering. The parameter which of regional criteria is the depth groundwater of less than 3 meter. The management was conducted to resolve and minimize the environmental quality problems of Ciledug landfill by construction of landfill with a controlled landfill system by making soil with a base layer of waste cells, leachate collector, and controlling methane gas for Ciledug landfill in Ministerial Regulation Number 03 of 2013 about The Infrastructure Implementation and Waste Facilities in Household Waste Handling and Household Waste.*

***Keywords: Waste Landfill, Land Feasibility, SNI 03-3241-1994, Controlled Landfill***