ABSTRACT

Litter is a problem that commonly occurs in big cities such as Jakarta, Surabaya, Medan, Bandung, Yogyakarta and Semarang. The increasing amount of garbage due to the increasing population (Dyah Ernawati, dkk, 2012). Bandung city, especially in the western part of the city is one that is experiencing the problem against the processing of waste which were in the process of hauling trash. Of those problems required a distribution system transporting garbage that can determine the shortest route with maximum capacity. To fix it, then done remodeling the original garbage distribution route started from the Pool in an empty and then headed to the TPS, then disposed of to landfill and returned to the Pool in an empty Pool in the area started being from the State of then head to the TPS and then to Transition Between Stations (SPA) then dumped into landfill and returned to the Pool in an empty.

The design of the new route used the distribution system transporting garbage that can determine the shortest route with maximum capacity using the approach of Vehicle Routing Problem (VRP) and Nearest Neighbor. The design of the optimal route for transportation-generated garbage in the area of the western part of the city of Bandung. Best routes used by using the method of Vehicle Routing Problem (VRP) followed by method of Nearest Neighbor. Resulting from processing as much as 11 routes with the following data: Route 1 with 30.40 km mileage and travel time 1.66 hours, route 2 with 30.90 km mileage and travel time 1.69, Route 3 with 28.43 km mileage and travel time 1.55 , the route mileage 29.21 4 km and the travel time 1.60, route 5 with mileage 31, 12 km and the travel time is 1.70, route 6 with 30.09 km mileage and travel time 1.64 hours, Route 7 with 26.68 km mileage and travel time 1.46 hours , the route 8 with 25.56 km mileage and travel time 1.40, route 9 with mileage 25.82 km and the travel time is 1.41, route 10 with mileage 20.97 km and travel time 1.15 hours, route 11 with mileage 23.75 km and travel time is 1.30 hours. This route is already said to be better because after comparison between routes that use the Clark Wright Saving with a route that uses the methods of Clark Wright Saving added with Nearest Neighbor. based on the Cluster then produced with the total mileage distance 327.94 km and it takes hours, 17.92.

Keyword : Vehicle Routing Problem, Clark Wright Saving, Nearest Neighbor