

## **CHAPTER V**

### **CLOSING**

#### **5.1 Conclusion**

Based on the purpose and analysis of planning of the retention pond and water pump at Campus II of Bung Hatta University, the following conclusion can be drawn:

1. Based on the analysis of the rainfall discharges of the last 10 years, the maximum design rainfall discharges in the area of campus II of Bung Hatta University for the return period of 5 year is 180.69 mm/day.
2. The maximum design flood discharges within 84.45 m<sup>2</sup> of the polder area at campus II of Bung Hatta University is obtained as 1.973 m<sup>3</sup>/sec.
3. The volume of the retention pond is obtained as 851.45 m<sup>3</sup> with the water pump capacity of 0.5 m<sup>3</sup>/sec.
4. The height of the embankment to be applied is 0.8 m, higher from the height of the flood water level of 0.70 m.

#### **5.2 Suggestion**

1. It is recommended in the future study to examine the design and construction method of the retention pond and pump house.
2. It is recommended that the drainage channel entering the retention pond be given a filter so that garbage and sediment do not enter the retention pond which can interfere or damage the water pump.
3. Better to schedule maintenance time for the pump so that the condition of the water pump is maintained properly.

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