

Water-Trap Series and City Pond to Control The Destructive Power of Runoff Water from Mbay Hills

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Abstract	<p>Weworuwet Hill, which is part of the Mbay hillside in Flores “ NTT has sparse vegetation, only a stretch of grass that covers it, and is dry in the dry season like a barren teletabic hillside. This has the potential for surface water runoff, which has high destructive power, especially in the lowlands of Mbay City. To overcome this problem, a study to control the destructive force of water runoff was carried out by applying a water-trap series system, so that the potential for the destructive power of water can be reduced. Tertiary, secondary and primary runoff analysis studies are carried out to determine the location of the required water-traps. This study was conducted using a geographic information system-based program. Furthermore, the hydrological analysis of the area is carried out to determine which flood discharge can be controlled, and the volume of water that can be used for greening hills so that it can reduce the potential for damage to water runoff. The remaining water discharge in the downstream will be accommodated in the city pond, which functions as water conservation infrastructure. Finally, by applying a series of water traps on the tertiary, secondary and primary runoff from the Mbay hilly area, the destructive power of the runoff can be controlled, so that it does not impact and burden the residential plains of the town of Mbay.</p>
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