

INTISARI

Evaluasi dan Solusi Perbaikan Permukaan *Fishway* pada *Groundsill* Bantar di Desa Argosari Kecamatan Sedayu Kabupaten Bantul

Ragil Trias Handayani, 2018, (dibimbing oleh Dr.-Ing. Ir. Agus Maryono)

Evaluasi konstruksi *fishway* pada *groundsill* Bantar dilakukan karena *fishway* belum berfungsi secara optimal. Dari evaluasi dihasilkan ukuran batu dilapangan tidak sesuai dengan ukuran batu perencanaan, belum adanya batu penghalang pada bagian hulu *fishway*, dan muka air hilir *fishway* lebih tinggi dari muka air sungai. Secara keseluruhan *fishway* Bantar belum memenuhi standar persyaratan umum bangunan *fishway*.

Dilakukan percobaan permodelan *fishway* Bantar pada skala laboratorium dengan standar bangunan *fishway* secara umum, untuk membuktikan *fishway* dapat berfungsi secara optimal. Permodelan dilakukan menggunakan 2 tipe *fishway* yaitu *fishway* tipe *fish ramp* dengan batu disusun secara bebas atau berdasarkan tipe material batu (*rockfill construction or loose construction*) dan *fishway* tipe *fish ramp* dengan sekat *rhomboid*. Pada *fishway* tipe *fish ramp* dengan batu disusun secara bebas atau berdasarkan tipe material batu (*rockfill construction or loose construction*) dihasilkan 5 ikan yang berhasil melewati *fishway* yaitu lele, tawes, wader, *grass carp* dan *red devil*. Pada *fishway* tipe *fish ramp* dengan sekat *rhomboid* dihasilkan 2 ikan yang berhasil melewati *fishway* yaitu lele dan *red devil*.

Rekomendasi perbaikan *fishway* Bantar dilakukan dengan cara menambahkan urugan batu yang ditebarkan pada seluruh permukaan *fishway* dan menggunakan pemilihan formasi seperti batu disusun secara bebas atau berdasarkan tipe urugan batu (*rockfill construction or loose construction*). Rekomendasi bagian muka air hilir *fishway* dengan menambahkan tumpukan batu besar dan balok dibagian hilir sehingga muka air *fishway* dapat sejajar dengan muka air sungai.

Kata Kunci : Sungai, *Groundsill*, *Fishway*

ABSTRACT

Evaluation and Repairing Solution Fishway's Surface on Groundsill Bantar in Argosari Village Sedayu Sub District Bantul Regency

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Fishway construction in groundsill Bantar is evaluated because it wasn't optimally functioned. Evaluation results had shown that the size of the stones on the fishway construction wasn't according to the size of the stones in the planning, there wasn't stone barrier at the upstream of the fishway construction, as well as the higher water level in the downstream of the fishway construction compared to the water level of the river. Overall, Bantar Fishway Construction wasn't built according to the general standard of fishway construction.

*The modeling of Bantar Fishway Construction on a laboratory scale using the general standard of fishway construction has been carried out to prove that the fishway construction can work optimally if it built according to the general standard of fishway construction. The modeling is done using 2 types of fishway construction. The first type is fish ramp fishway with stones arranged freely or arranged based on the type of the stone material (rockfill construction or loose construction) and the second type is fish ramp fishway with rhomboid partition. On the type of fish ramp fishway with stones arranged freely or arrange based on the type of the stone material (rockfill construction or loose construction), 5 fishes can swim up to through the fishway. There are catfish (*Clarias*), tawes (*Barbonymus gonionotus*), wader (*Barbodes binotatus*), grass carp (*Ctenopharyngodon idella*) and red devil (*Amphilophus labiatus*). On the type of fish ramp fishway with rhomboid partition, 2 fishes can swim up to through the fishway. There are catfish (*Clarias*) and red devil (*Amphilophus labiatus*).*

The recommendations for improving Bantar fishway construction is by adding and spreading more pile of rocks along the surface and then using fish ramp fishway with stones arranged freely or arrange based on the type of the stone material (rockfill construction or loose construction). Meanwhile, the recommendation for the higher water level in the downstream of the fishway construction is by adding more pile of rocks and beam in the downstream of the fishway until the water level of the fishway is equal with the water level of the river.

Keywords: River, Groundsill, Fishway