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STABILIZACIJSKI OBJEKTI V VODOTOKIH

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Povzetek

V nalogi so obdelane toge zgradbe v in ob vodotokih. Njihova osnovna naloga je ohranjati stabilnost nosilnega telesa prometnice. <pri zagotovitvi prostora za prometnice, se mora predvideti zadostni pretočni prerez vodotoka. Najvažnejša je izbira pravega objekta ob izpolnitvi razumnih zahtev vseh uporabnikov prostora. V primeru stika prometnice in struge le na krajšem odseku, je primernejše izbrati vzdolžno konstrukcijo, ki bo medsebojno ločila strugo in prometnico. Ob daljšem skupnem poteku prometnice in struge pa je največkrat ugodneje urediti strugo in prilagoditi potek prometnice novo oblikovanemu terenu z uporabo prečnih zgradb. Prečne zgradbe stabilizirajo dno vodotoka na izbrani niveleti. V nalogi so zbrane različne rešitve in pristopi različnih avtorjev. Z uporabo njihovih rešitev se lahko predvidi potek struge tako, da se zmanjša višinska razlika med prometnico in strugo. Ob manjši višinski razliki pa se lahko namesto podporne konstrukcije zgradi zemeljski nasip. Ravno tako se sanacija izpodkopanih temeljev lahko zagotovi s prečnimi zgradbami in posledično ponovno zasutje temeljev z dvigom nivelete struge. Izbira ugodnejše konstrukcije temelji na primerjavi medsebojnih prednosti in pomanjkljivosti vzdolžnih oziroma prečnih zgradb. Ob delnem upoštevanju zahtev posameznega uporabnika so lahko posegi v prostor slabi oziroma celo škodljivi.

Ključne besede: hidravlika, hudournik, padavine, prelivna polja, regulacija (surejanje) vodotokov, struga, voda, vodni skok, toga zgradba, prečni prag, podporni zid

Abstract

The main focuses of this thesis are rigid structures in and by the watercourses. Their main task is to maintain the stability of traffic route substrate. To assure the space for traffic routes, a sufficient runoff section of river course needs to be foreseen. The most important is the selection of the right structure upon fulfillment of reasonable requirements of all users. In case the traffic route and river channel are jointed only shortly, it is more adequately to choose longitudinal construction that will separate the river channel and traffic route. However, when the traffic route and river channel run together for a longer section, it is usually more advantageous to regulate the river channel and adjust the traffic route to the new designed ground, using transversal structures. The transverse structures stabilize the riverbed in chosen level. This thesis combines the solutions and approaches of various authors. With the implementation of their solutions, the river channel course can be designed in the manner that the altitude difference between traffic route and river channel decreases. However, when the altitude difference is low, earthworks can be built instead of supporting constructions. Likewise, the improvement of sapped foundations can be assured with transverse structures and consequently re-filling the foundations with river level elevation. The selection of the most advantageous construction rests on the comparison of mutual advantages and disadvantages of longitudinal or transverse structures. If requirements of an individual user are only partially considered, the activities which affect the environment can be poor or even harmful.

Key words: hydraulics, torrent, precipitations, overfall fields, river course regulation, river channel, water, hydraulic jump, ridge structure, transverse sill, supporting view