

Interactive comment on “Flow Intake Control using Dry-weather Forecast” by Otto Icke et al.

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The paper describes a nice and interesting study on the use of an operational real-time control system. As these systems are rarely actually build and operationally used, this is interesting on beforehand.

I have only a few questions and remarks:

In Section 1 it is stated that there is a “significant bypass of post-treatment during peak discharge”. Please elaborate this with illustrative figures, for example in terms of spilled load or volumes to surface water relative to total. This, to get an idea of impact and potential benefits.

You refer a few times to optimization of inflow "by using predictive control", using predictions on inflow. But, what exactly are you controlling and how? I suspect by controlling the sewerage pumping stations, which are used to pump the waste water from sewer

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systems into the transport pipe system? Or...?

Line 35: “To verify the preliminary...” should be “To verify the results of the preliminary....”?

With respect to section 2.1: is there anything to say about the forecast accuracy of the HiRLAM NWP, especially in terms of precipitation depths? Why (old) HiRLAM is chosen and not the newer and (probably better and more accurate) HARMONIE forecast? What about using uncertainty techniques, using for example ensembles? There is some discussion in 3.3, but why you chose Hirlam and not harmonie on beforehand?

Section 3: I presume that the bypass volume is observed, while the prevented volumes are based on simulations?

Lines 155-160: you state that bypass could completely be prevented. What about the possibly increased CSO volume in this case?

Line 163-164: completely unclear to me what you mean here.

Maybe a little out of scope for this paper, but given the fact that these kind of predictive control systems are not yet common practise, do you have any additional experiences, do's and don'ts which can be shared with us?

Please also note the supplement to this comment:

<http://www.drink-water-eng-sci-discuss.net/dwes-2017-1/dwes-2017-1-SC1-supplement.pdf>

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