

**Detailed point-to-point responses to comments from reviewers**

|  | Reviewer comment   | Author response<br><i>References made to locations in the manuscript within this column refer to the revised manuscript</i>   |
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| <b>RC1 – Anonymous referee #1 (<a href="https://doi.org/10.5194/essd-2021-8-RC1">https://doi.org/10.5194/essd-2021-8-RC1</a> )</b> |  |   |
| General  |  |   |
| RC1.0  | <p>It is quite necessary and important to develop an open data and models of urban drainage systems for both academia and industry. We indeed need a data set with good quality, close to reality for modelling, analyzing, comparing performance in different control and optimization methods, etc. This work solves the problem very well.</p> <p>The data and models cover a real area in Denmark, consists of up to 10-year observations for important measurements in need. Models are presented in both MU and SWMM, the most popular simulation platform, which add usability and accessibility for the potential users.</p> <p>The manuscript and files in terms of data and models are organized in a good manner. Just very few comments about some confusing places:</p> | <p>Thank you very much for your review of the manuscript. We really appreciate this and have done our best to accommodate your suggestions for changes in the manuscript. See our replies to your detailed comments below.</p>  |
| Manuscript   |  |   |
| RC1.1  | <p>Line 215: “A 1 min temporal resolution applies to...” maybe better in “A 1-minute temporal resolution is applied to...”; “2 min” maybe better in “2-minute”</p>   | <p>Thank you. We will clarify this.</p> <p>The manuscript is changed to<br/>Line 233: “A 1-minute temporal resolution is applied to all data...” and “but the resolution is 2 minutes for the mobile sensors”</p>   |
| RC1.2  | <p>Line 365: “10 m” maybe better in “10-meter”</p>   | <p>Thank you. This is changed in the new submission.</p> <p>Line 528: “...shorter than 10 meter is adjusted to 10 meter for...”</p>   |
| Assetdata.pdf  |  |   |
| RC1.3  | <p>It is nice that some important variables have been translated into English, which indeed increase its readability.</p> <p>In the row of <b>NetworkCat</b>, there appeared “?”, what does that mean? Is it possible to put the real translation here?</p> <p>In the row of <b>StatusCode</b>, the 7, 8, 50 of K_STATUS failed to be translated, will that be a problem for the readers?</p>  | <p>Thank you for pointing this out. The Table is from the DanDas manual and contains some entries that are not relevant for the Bellinge data set. We have focused on adding English translations only of terms relevant to the Bellinge data set, but realise now that a few more needed translation. We have thus replaced “?” (which was an error) with “<i>Interceptor pipe</i>” and added translations of StatusCode 7, 8, and 50 (“<i>Constructed</i>”, “<i>Removed</i>” and “<i>Other</i>”).</p> |
| <b>G71F04R_Level1_System2000p2_proc_v6.xls</b>   |  |   |
| RC1.4  | <p>“ffill” means “fill”, is it necessary to modify?</p>  | <p>The data supplier that VCS uses for many of its in-sewer sensors reduces storage requirements of</p>   |

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|                                 |  | <p>measured values by leaving empty data points in the time series if consecutive measured values are (near) constant. Consecutive points are seen as constant if water levels vary less than one centimeter (manual setting) between two consecutive time steps. So, “ffill” means “forward-fill” as empty data points are filled with the value of the most recent data point.</p> <p>The following changes is suggested in the manuscript.<br/>         Line 321ff: <i>“Data from iFix is set to reduce data storage requirements at the sensor by leaving out observations that changes in the coming timestep below a given threshold (for water level sensors most often set to 1 cm). Therefore, this should not be seen as a period of failure, or signal loss, and for this script forward-filling is applied to the values which have these properties.”</i></p> |
| <b>CatchmentDescription.pdf</b> |  |  |
| RC1.5                           | <p>is it possible to give an explanation about meaning of standard and Other, how to define them, is it possible to provide more information about them?</p> | <p>The “SA (standard)” and “Other” categories refer to two different sets of imperviousness parameter values characterizing different land-use classes. The standard is what is far most used in the service area of the utility company and have emerged based on experience. The “Other” category is an adjustment of the imperviousness related to the catchment area of G71F68Y based on interpretation of observations many years ago. This is now better explained in the document.</p>  |