

WALRUS references

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Our peer-reviewed work

Brauer et al. (2014a)
Brauer et al. (2014b)
Brauer (2014)
Brauer et al. (2016)
De Boer-Euser et al. (2017)
Pijl et al. (2018)

Peer-reviewed work by other groups

Yan et al. (2016a)
Yan et al. (2016b)
Yan et al. (2017)
Sterk et al. (2016)
Wijngaard et al. (2017)

MSc theses Wageningen University

Cluitmans (2014)
Ten Broek (2014)
Zhou (2014)
Loos (2015c)
Jansen (2015)
Sanli (2015)
Drost (2016)
Pijl (2016)
Wannasin (2016)
Weijers (2017)
Busstra (2017)
Scholten (2017)
Kelder (2017)
Heuvelink (2017)
Westerveld (2018)
Schütt (2018)
Gerritsen (2019)
Valk (2019)
Van Der Valk (2019)
Zwart (2019)

MSc internship reports Wageningen University

Slenters (2014)
Loos (2015a)
Loos (2015b)
Wendt (2015)
Bol (2016)
Hilhorst (2016)
Waterval (2016)

Lake (2018)

BSc theses Wageningen University

Waterval (2014)
Scholten (2014)
Koops (2015)
Verschaeren (2015)
Eskens (2015)
Heuvelink (2016)
Imhoff (2016)
Ogilvie (2016)
Meijers (2017)
Huits (2017)
Scholtemeijer (2018)
Van Kempen (2018)
Amsing (in prep.)

Student reports other universities

Muluneh Finsa (2015)

References

- Amsing, L., in prep. Simulating pumping strategies for optimizing energy usage in dutch polder systems. Bachelor's thesis, Wageningen University.
- Bol, D. C. C., 2016. WALRUS hydrologic analysis of the Dwarsdiep, Groningen (in Dutch). Internship report (at Witteveen + Bos), Wageningen University.
- Brauer, C. C., 2014. Modelling rainfall-runoff processes in lowland catchments. Ph.D. thesis, Wageningen University.
- Brauer, C. C., Overeem, A., Leijnse, H., Uijlenhoet, R., 2016. The effect of differences between rainfall measurement techniques on groundwater and discharge simulations in a lowland catchment. *Hydrol. Proc.* 30, 3885–3900.
- Brauer, C. C., Teuling, A. J., Torfs, P. J. J. F., Uijlenhoet, R., 2014a. The Wageningen Lowland Runoff Simulator (WALRUS): a lumped rainfall-runoff model for catchments with shallow groundwater. *Geosci. Model Dev.* 7, 2313–2332.
- Brauer, C. C., Torfs, P. J. J. F., Teuling, A. J., Uijlenhoet, R., 2014b. The Wageningen Lowland Runoff Simulator (WALRUS): application to the Hupsel Brook catchment and Cabauw polder. *Hydrol. Earth Syst. Sci.* 18, 4007–4028.
- Busstra, K., 2017. Linking rainfall-runoff model WALRUS and aquatic ecosystem model PCditch: A case study in the Groote Molenbeek. Master's thesis, Wageningen University.
- Cluitmans, C. N. M., 2014. To identify and validate techniques for the identification of optimal parameter-sets for WALRUS in different catchments in The Netherlands. Master's thesis, Wageningen University.
- De Boer-Euser, T., Bouaziz, L., De Niel, J., Brauer, C., Dewals, B., Drogue, G., Fenicia, F., Nossent, J., Pereira, F., Savenije, H., et al., 2017. Looking beyond general metrics for model comparison – lessons from an international model intercomparison study. *Hydrol. Earth Syst. Sci.* 21, 423–440.
- Drost, J., 2016. Modelling the hydrologic effect of climate change in the Oude IJssel catchment using WALRUS (in Dutch). Master's thesis, Wageningen University.
- Eskens, M. F. H., 2015. Calibrating the Wageningen Lowland Runoff Simulator: A case study using groundwater depth data obtained from monitoring wells in the Hupsel Brook catchment. Bachelor's thesis, Wageningen University.
- Gerritsen, T., 2019. Hydrological intercomparison of rain gauge, weather radar and satellite observations. Master's thesis, Wageningen University.
- Heuvelink, D., 2016. The role of simultaneous occurrence of extreme precipitation and high groundwater levels in producing extreme discharges. Bachelor's thesis, Wageningen University.
- Heuvelink, D., 2017. The hydrological application of ensemble radar rainfall nowcasting in the Netherlands. Master's thesis, Wageningen University.
- Hilhorst, F. L. E., 2016. Improving WALRUS by including a river dynamic component. Master's thesis, Wageningen University.
- Huits, I. J. K. M., 2017. Walrus in foreign lowland areas: Applying the wageningen lowland runoff simulator to american catchments. Bachelor's thesis, Wageningen University.
- Imhoff, R. O., 2016. The effects of climate change on the production of peak discharges. Bachelor's thesis, Wageningen University.
- Jansen, F. A., 2015. Structural analysis of rainfall-runoff model WALRUS through the a posteriori distribution of the model parameters using DREAM. Master's thesis, Wageningen University.
- Kelder, T., 2017. A simplified routing model for data scarce lowland catchments. Master's thesis, Wageningen University.
- Koops, M., 2015. Clustering of Dutch catchments based on water balances. Bachelor's thesis, Wageningen University.
- Lake, N., 2018. Modelling surface water supply using the walrus model. Internship report (at HKV), Wageningen University.
- Loos, R. E., 2015a. Development of WALRUS models for FEWS Vecht (in Dutch). Internship report (at Water Board Vechtstromen), Wageningen University.
- Loos, R. E., 2015b. Development of WALRUS models for FEWS Vecht (in Dutch). Tech. rep., Water Board Vechtstromen.
- Loos, R. E., 2015c. Making WALRUS applicable for large catchments: a case study in the Reusel catchment. Master's thesis, Wageningen University.
- Meijers, M., 2017. Drought indices: an analysis of low flow in lowland catchments before and after climate change. Bachelor's thesis, Wageningen University.

- Muluneh Finsa, M., 2015. Performance analysis of conceptual rainfall-runoff models under extreme conditions. Master's thesis, KU Leuven.
- Ogilvie, R. P., 2016. Application of data assimilation to the WALRUS model in the Reusel catchment. Bachelor's thesis, Wageningen University.
- Pijl, A., 2016. WALRUS application in the Veneto Region (Italy) – a hydrological assessment of model performance, and scenario analyses of land use change and climate change. Master's thesis, Wageningen University.
- Pijl, A., Brauer, C. C., Sofia, G., Teuling, A. J., Tarolli, P., 2018. Hydrological impacts of land use and climate in the Veneto lowlands (Italy). *Anthropocene* 22, 20–30.
- Sanli, N. O., 2015. Application of WALRUS and HBV-light in the Buyuk Menderes catchment, Turkey, and the role of groundwater abstraction. Master's thesis, Wageningen University.
- Scholtemeijer, M., 2018. Identifying flow paths using EC measurements. Bachelor's thesis, Wageningen University.
- Scholten, 2017. The effects of real-time control (rtc) measures on groundwater table and discharge in lowland model walrus during and after summer. Master's thesis, Wageningen University.
- Scholten, L. E., 2014. Predictions of discharge indices in 'ungauged' catchments in the Netherlands. Bachelor's thesis, Wageningen University.
- Schütt, K., 2018. Exploring the applicability of walrus for predicting water supply at regional scale: A case study in eastern Netherlands. Master's thesis, Wageningen University.
- Slenters, V., 2014. WALRUS and WINFO: simulating discharges for a new warning system (in Dutch). Internship report (at Water Board Aa and Maas), Wageningen University.
- Sterk, A., Schijven, J., de Roda Husman, A. M., de Nijs, T., 2016. Effect of climate change on runoff of *Campylobacter* and *Cryptosporidium* from land to surface water. *Water Res.* 95, 90–102.
- Ten Broek, J. M., 2014. Coupling WALRUS to SOBEK: Wageningen Lowland Runoff Simulator to 1D open water model. Internship report (at Water Board Rijn and IJssel), Wageningen University.
- Valk, K., 2019. State updating for improving flood forecast accuracy in lowland catchments with WALRUS. Master's thesis, Wageningen University.
- Van Der Valk, J., 2019. Aspects affecting the hydrological application of radar nowcasting in the Netherlands. Master's thesis, Wageningen University.
- Van Kempen, G., 2018. Hydrological change caused by climate change during the past century. Bachelor's thesis, Wageningen University.
- Verschaeren, B. P. J., 2015. Distinguishing between the effects of slow and fast rainfall-runoff processes in groundwater dynamics (in Dutch). Bachelor's thesis, Wageningen University.
- Wannasin, C., 2016. The comparison of WALRUS and SWAP. Master's thesis, Wageningen University.
- Waterval, J. G. J., 2014. Catchment comparison in the Netherlands – An attempt to cluster catchments based on hydrological behaviour. Bachelor's thesis, Wageningen University.
- Waterval, J. G. J., 2016. The effect of managing a controlled water system on storage deficit and vegetation. Master's thesis, Wageningen University.
- Weijers, L., 2017. Discharge simulation of summer floods: A WALRUS case study of the Bakelse Aa in June 2016. Master's thesis, Wageningen University.
- Wendt, D. E., 2015. Snow hydrology in the Netherlands: Developing snowmelt algorithms for Dutch regional water management modules. Internship report (at Water Board Vechtstromen), Wageningen University.
- Westerveld, H., 2018. Steps towards WALRUSurban: Data analysis and case study of urban catchments. Master's thesis, Wageningen University.
- Wijngaard, R., Van der Perk, M., Van der Grift, B., De Nijs, T. C. M., Bierkens, M. F. P., 2017. The impact of climate change on metal transport in a lowland catchment. *Water, Air and Soil Pollution* 228 (107).
- Yan, R., Gao, J., Huang, J., 2016a. WALRUS-paddy model for simulating the hydrological processes of lowland polders with paddy fields and pumping stations. *Agr. Water Manage.* 169, 148–161.
- Yan, R., Gao, J., Li, L., 2016b. Modeling the hydrological effects of climate and land use/cover changes in Chinese lowland polder using an improved WALRUS model. *Hydrology Research* 47 (6).
- Yan, R., Huang, J., Li, L., Gao, J., 2017. Hydrology and phosphorus transport simulation in a lowland polder by a coupled modeling system. *Environ. Pollut.* 227 (613–625).

Zhou, Z., 2014. Soil moisture and groundwater depth variability at the field scales during a wet to dry seasonal transition. Master's thesis, Wageningen University.

Zwart, J., 2019. Implementing a backwater feedback in

a semi-distributed version of WALRUS: a study about the model complexity and performance. Master's thesis, Wageningen University.