Curriculum Vitae

Name	P. van Ravesteyn, MSc.
First Name	Pepijn
Date of Birth	October 03, 1990
Nationality	Dutch
Main Disciplines	Water Resources Management, Hydrological Modelling, Groundwater, Climate Change, GIS
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Key Qualifications

Pepijn van Ravesteyn is a hydrologist with 9 years of international experience working in the water resources sector. He holds an BSc in Environmental sciences (Utrecht University, 2013) and a MSc in Hydrology (VU University of Amsterdam, 2016). Pepijn's experience as a hydrologist encompasses several different aspects of water resources including hydrologic and hydrogeologic field investigation, hydrologic analysis and modelling, groundwater modelling, water availability, water demand assessments, water resources modelling, GIS analyses, environmental impact assessments, and climate change impact on water resources. Between 2016 and 2019 he worked as a hydrogeologist with WSP in Australia, he designed and led fieldwork programs, trained junior staff, and operated as project manager. Between 2022 and 2025 he was based in Johannesburg, South Africa working as Climate Resilience and Hydrology Consultant for Royal HaskoningDHV. His international portfolio of projects is evident from the numerous countries he worked in, such as Australia, Nepal, Singapore, Philippines, UK, The Netherlands, Portugal, Ethiopia, Mozambique, Madagascar, Senegal, South Africa, and Venezuela. He is affiliated with the International Association for Hydrogeologists (IAH) and the South African Hydrological Society (SAHS).

Educational Background

2013 – 2015	MSc Hydrology, VU University, Amsterdam, The Netherlands
2009 – 2013	BSc Environmental Sciences with a specialization in Physical Geography, Utrecht University, Utrecht, The Netherlands

Professional Experience

2025 – present	Senior Hydrologist, FutureWater, Wageningen, The Netherlands
2022 – 2025	Climate Resilience and Hydrology consultant, Johannesburg, South Africa
2019 – 2022	Hydrologist, Royal HaskoningDHV, Amersfoort, The Netherlands
2016 – 2018	Hydrogeologist, WSP, Sydney, Australia

Overseas Professional Experience

Resident:	Sydney, Australia (2016-2018), Johannesburg, South Africa (2022-2025)
Non-resident assignments:	Nepal, Singapore, Philippines, UK, Portugal, Ethiopia, Mozambique, Madagascar, Senegal, Venezuela

Selection of Assignments and Projects

Duration: 2024 **Position:** Water and climate expert **Location:** South Africa, Grootvlei **Client:** Embassy of the Netherlands in South Africa	***Viable and sustainable water resources for greenhouse development plans*** **Main project features**: As part of the Just Energy Transition, a greenhouse is foreseen to cater for job creation after decommissioning the Grootvlei Power Station. A water demand assessment and water availability investigation were performed on viable water resources. A Multi-Criteria-Analysis was completed to review the options of boreholes, an onsite dam, and water from the Vaal Dam against sustainability, water quantity and quality, treatment, CAPEX, OPEX, regulations, implementation time and scalability. The impact of climate change on water availability was incorporated in the assessment. Position held: Water resources expert and Project Manager **Activities performed**: • Stakeholder consultations and data collection; • Water demand assessment • Climate change impact on water availability • Multi Criteria Analysis • Water resources modelling
Duration: 2024 **Position:** Water resources expert and Project Manager **Location:** South Africa, Grootvlei **Client:** Embassy of the Netherlands in South Africa	***Water resources availability Dipaleseng Municipality*** **Main Project Features:** Water resources availability Dipaleseng Municipality **Activities Performed**: • Site visit, stakeholder consultations and data collection; • Water balance assessment • Water resources modelling (Pitman model) • Water demand and shortage modelling for various crop types • Identification of geographical area for redevelopment
Duration: 2021 – 2023 **Position:** Hydrogeologist and deputy Team Lead **Location:** Mozambique, Nacala **Client:** Embassy of the Netherlands in Mozambique - DNGRH	***Groundwater availability and potential of the local aquifer*** **Main Project Features:** The city of Nacala is growing rapidly and the demand for freshwater is increasing. Currently groundwater is an important source for the drinking water supply. Little is known about the current status of the aquifer and saline groundwater intrusion may risk the groundwater resources. Extensive fieldwork is conducted (well inventory, geophysics, drilling monitoring wells) to improve the understanding of the groundwater system and used to develop a groundwater model. Based on a water balance, water demand assessment and groundwater modelling the sustainable yield of the aquifer is estimated and potential locations for new well fields are proposed. As deputy Team Lead and hydrogeologist, I am responsible for deliverables, planning, budget, subcontractor management and expert input**.** **Activities Performed**: • Field visits, stakeholder consultations and data collection; • Geophysical surveys; • Drilling of 4 monitoring wells • Water balance assessment • Groundwater modelling • Water demand assessment • Identification of potential groundwater exploration areas • Design of groundwater monitoring program • Determine groundwater protection zones
Duration: 2023 **Position:** Water resources expert **Location:** Venezuela, El Callao **Client:** International Committee of the Red Cross	***Master plan water supply and availability El Callao*** **Main Project Features**: Evaluation of both groundwater and surface water resources for master planning water supply to El Callao. The Puente Blanco reservoir is fed by a local river and the reservoir optimization was modelled taking into account water demand, required pump capacities, periods of drought and runoff. **Activities Performed**: • Water availability assessment • Water resources modelling • Reporting
Duration: 2024 – 2025 **Position:** Hydrogeologist and water resources expert	***Technical Advisory Services for Water Extraction and Water Infrastructure Projects*** **Main project features**: Review during preliminary and detailed engineering design, support during engagement with PPC contractor and review during implementation.

Location: Philippines, various islands **Client:** Tubig Pilipinas	This focuses on review and recommendations in relation to groundwater abstractions at San Jose, Nabua, and Trece Martires. In addition, a groundwater abstraction design guide was developed. **Activities performed**: • Review of borehole designs, yields, groundwater availability • Recommendations for groundwater exploration • Development of a groundwater abstraction design guide
Duration: 2023 – 2024 **Position:** Hydrogeologist **Location:** Senegal, Dakar **Client:** The World Bank	***Flood risk mapping and groundwater analysis in four selected peri-urban areas of Dakar*** **Main project features:** The Dakar-Mbour-Thies (DMT) triangle faces significant water security challenges due to flooding, poor groundwater quality and shallow groundwater levels. The study includes data collection, flood risk assessment and mapping of groundwater flood-prone urban areas. This includes a water balance assessment and recommendations for monitoring and sustainable solutions for reuse of groundwater. I worked as hydrogeologist on this project. **Activities performed:** • Data collection; • Water balance assessment • Mapping piezometric levels • Design of groundwater monitoring program • Sustainable solutions for the reuse of pumped water
Duration: 2022 – 2023 **Position:** Hydrogeologist and Project Manager **Location:** Mozambique, Tete **Client:** Embassy of the Netherlands in Mozambique – ARA Centro	***Revúbue groundwater modelling and training*** **Main project features**: Evaluation of the groundwater resources around Tete to abstract for drinking water use and mining operations. Currently the mines are extracting significant volumes of groundwater from the alluvial aquifer and upscaling of public water supply is planned but the sustainable yield is unknown. Fieldwork was performed to improve understanding of the groundwater system, a groundwater model is currently being developed and a tailor made groundwater modelling training held. My role was hydrogeologist, GIS expert, and coordinator of the project. **Activities performed**: • Field visits, stakeholder consultations and data collection; • Geophysical surveys; • Groundwater modelling • Groundwater modelling training • Design of groundwater monitoring program.
Duration: 2022 **Position:** Hydrologist **Location:** Mozambique, Montepuez **Client:** International Committee of the Red Cross - FIPAG	***Water resources and supply Montepuez*** **Main project features**: Evaluation of the availability of water resources around Montepuez as part of a masterplan for water supply to inhabitants of Montepuez area. Aquifer productivity was reviewed, river discharge and a dam. Water demand is expected to increase to 20.000 m^3/d due to increase of population. This is caused by displaced people fleeing the northern province because of unrest and violence. **Activities performed**: • Review available data of current water resources • Assess availability of surface water (dam and river) and groundwater to meet future water demand • Water demand assessment • Recommendations for future developments and prioritizing actions
Duration: 2022 – 2023 **Position:** Hydrologist and project manager **Location:** Ethiopia, Amhara **Client:** PepsiCo	***Water balance assessment for increased groundwater abstractions for production facility*** **Main project features**: To meet the needs of the production facility two additional production boreholes will be constructed. A water balance assessment is undertaken to assess the productivity of the aquifer. This entails conceptualization of the hydrogeological system, assessing runoff, groundwater recharge and discharge to rivers. Climate change and socio-economic developments are taken into account to estimate the water demand and water resources availability up to 2050. **Activities performed**: • Review available data of current water resources • Water balance assessment • Assess impact of climate change and socio-economic development on water demand and availability

Duration: 2022 – 2023 **Position:** Hydrogeologist **Location:** Nepal, Butwal **Client:** Invest International – Ministry of Agriculture and Livestock Development	***Groundwater resources availability Butwal*** **Main project features:** The groundwater resources have been evaluated in the area of Butwal as part of an EISA for the development of an agriculture wholesale market in Semlar, Butwal district. The anticipated source for water supply is groundwater but the availability had to be evaluated first. Also, the potential impact of construction works on the groundwater system were assessed. This was done by literature review, analysing datasets and developing a conceptual model of the groundwater system. I worked as hydrogeologist on this project. **Activities performed:** • Review available data of current water resources • Assessment of water availability • Feasibility study of groundwater abstraction for water supply
Duration: 2024 – 2025 **Position:** Project Manager **Location:** South Africa, Stellenbosch **Client:** SANTAM	***Stellenbosch Flood Study*** **Main project features**: Insurer SANTAM wants to improve understanding of flood risk to existing and potential real estate of their clients. The project involved determining flood levels for the 20, 50 and 100 year return periods for the Plankenbrug, Krom and Eerste Rivers through Stellenbosch. Tasks included peak runoff rate and volume calculations, as well as hydraulic modelling for flood level determination. **Activities performed*:*** • Project Management • Review
Duration: 2024 **Position:** Project Manager **Location:** South Africa, Bredasdorp **Client:** MPAMOT, Department of Roads and Infrastructure Western Cape	**Main project features:** The MR261 road from Bredasdorp to Aguilas floods frequently. Hydrological and hydraulic modelling was performed in PCSWMM and HECRAS to study existing flooding and to assess the impact various mitigation measures. Tasks included peak runoff rate and volume calculations, as well as hydraulic modelling for flood level determination for mitigation measures. **Activities performed*:*** • Project Management • Review
Duration: 2024 **Position:** Project Manager **Location:** South Africa, Knysna **Client:** Confluent, Knysna Municipality	**Main project features:** Flooding is a known problem for Howard, Wilson, Kennet street and the Knysna Golf Club. The project involved identification of primary water flow restriction points, followed by identification of a suite of solutions that directly address flood mitigation. A prioritisation of solutions was included in terms of reductions in flooding combined with cost effectiveness. **Activities performed*:*** • Project Management • Review

Language skills

Language	Speaking	Reading	Writing
English	Fluent	Fluent	Fluent
Dutch (mother tongue)	Native	Native	Native
Portuguese	Basic	Basic	Basic

Computer skills

Simulation models: Spatial Processes in HYdrology (SPHY), WEAP, Pitman Model, MODFLOW, Plaxis 2D

GIS / Remote Sensing: ArcGIS, QGIS, Google Earth Engine