Level of expertise required	Low to intermediate
Synergies with other indicators	Moisture content, interception, throughflow, stemflow, vegetation type, vegetation cover, precipitation, erosion rate, percolation
Connection with SDGs	11,13,15,17
Opportunities for participatory data collection	Yes
Additional information	
References	FAO Soils Bulletin 68, 'Field Measurement of Soil and Runoff

4.22 Run-Off Score

Project Name: Nature4Cities (Grant agreement: No. 730468)

Author/s and affiliations: Florian Kraus[1], Bernhard Scharf[1]

[1] *Green4Cities GmbH/GREENPASS GmbH*

Run Off Score (ROS)	**Climate Resilience**
Description and justification	The ROS (Run Off Score) is one out of five Key Performance Scores of the GREENPASS® system. It expresses the ratio of water, which is discharged to the sewage system and is lost for NBS and climate regulation. No water, no NBS, no climate regulation.
Definition	The ROS (Run Off Score) describes the average run-off for a project area.
Strengths and weaknesses	+ worldwide standardized key performance score regarding run-off and water management + easy for communication, understanding and decision-making + useful for design optimization + as a base for regulative definitions (legal prohibition of climate deterioration)
Measurement procedure and tool	- area analysis (eg with GREENPASS® system and tools) - numerical index value (0-1)
Scale of measurement	Object, neighbourhood and city scale
Data source	

Required data	- project area analysis and typology related run-off coefficients - NBS typology
Data input type	- area with surface and vegetation types incl. characteristics - run-off coefficients for urban typologies (NBS, surface, …)
Data collection frequency	- one to several times in planning and optimization process
Level of expertise required	easy to calculate and understand – for planners and decision makers
Synergies with other indicators	Link to 'Surface runoff in relation to precipitation quantity', 'Water retention capacity of green areas (m3/y)', 'Volume of water removed from wastewater treatment system (m3)'
Connection with SDGs	SDG 11 Sustainable Cities and Communities, SDG 13 Climate action
Opportunities for participatory data collection	-
Additional information	
References	Kraus, F. (2017): The GREENPASS® Methodology. Pan European Network – Government 23 publication. October 2017. Scharf, B.; Schnepf, D. (2017): H2020: Special Report: Greenpass – unleash the power of green. Scharf, B. (2018): Coole Städte planen – Mit der „Greenpass-Methode". Neue Landschaft 01/2018. ISSN 0548-2836. Patzer Verlag. Berlin-Hannover. 2018. Scharf, B.; Kraus, F. (2019): Green Roofs and Greenpass. Buildings 2019, 9, 205. Elagiry, M.; Kraus, F.; Scharf B., Costa, A.; De 2019 Lotto, R. (2019): Nature4Cities: Nature-Based Solutions and Climate Resilient Urban Planning and Modelling with GREENPASS® - A Case Study in Segrate/Milano/IT. 16th IBPSA - International Building Performance Simulation Association Conference. Kraus, F.; Scharf, B. (2020): IT-gesteuerte Natur in der dichten Stadt. Neue Landschaft 01/2020. Kraus, F.; Scharf, B. (2019): Management of urban climate adaptation with NBS and GREENPASS®. Geophysical Research Abstracts. Vol. 21, EGU2019-16221-1, 2019 EGU General Assembly 2019. Kraus, F.; Scharf, B. (2019): Climate-resilient urban planning and architecture with GREENPASS illustrated by the case study 'FLAIR in the City' in Vienna. OP Conf. Ser.: Earth Environ. Sci. 323 012087.

	Kainz, A.; Hollosi, B.; Zuvela-Aloise, M.; Kraus, F.; Scharf, B.; Tötzer, T.; Züger, J.; Reinwald, F. (2019): Modelling the effects of implementing green infrastructure to support urban climate change adaptation and resilient urban planning. EMS Annual Meeting Abstracts Vol. 16, EMS2019-341, 2019. Nature4Cities, D2.1 - System of integrated multi-scale and multi-thematic performance indicators for the assessment of urban challenges and NBS. https://www.nature4cities.eu/post/nature4cities-defined-performance-indicators-to-assess-urban-challenges-and-nature-based-solutions. Nature4Cities, D2.2 - Expert-modelling toolbox Nature4Cities, D2.3 – NBS database completed with urban performance data https://www.nature4cities.eu/post/applicability-urban-challenges-and-indicators-real-case-studies Nature4Cities, D2.4 - Development of a simplified urban performance assessment (SUA) tool

4.23 Rainfall storage capacity of NBS

Project Name: CONNECTING Nature (Grant Agreement no. 730222) and PHUSICOS (Grant Agreement no. 776681)

Author/s and affiliations: S. Connop[1], D. Dushkova[2], D. Haase[2], C. Nash[1], Gerardo Caroppi[3,4], Carlo Gerundo[4], Francesco Pugliese[4], Maurizio Giugni[4], Marialuce Stanganelli[4], Farrokh Nadim[5], Amy Oen[5]

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Rainfall storage (water absorption capacity of NBS) (Applied and EO/RS combined)	**Water Management**
Description and justification	Indicators of Effects on Water Quantity sub-criterion will assess the effects of project scenarios on water quantity: Cities typically place water resources under stress and increase pressure on the quality and quantity of water resources. Changing precipitation patterns due to climate change are expected to exacerbate problems, for instance more intense rainfall events that exceed existing sewage system capacity. NBS can help tackle flood risk, and water quality and scarcity for instance by increasing infiltration