1 INFORMATION ON WORK PROGRESS

1.1 Summary and aims for the period

Work Package 2: The aim of the task for this period is to analyse the different remediation methods of RBF wells for the purpose of integrating them into the operation strategy of the pilot area for optimalisation.

Work Package 4: Based on laboratory experiments carried out in previous packages, this year different remediation methods requires to be overlooked in terms of usability, operational costs and applicability. For determination and examination different model processes and kinetic equations required.

1.2 Initially planned Milestones/Deliverables/Budget and the impact on the project

Work package 2: Expert report on the results of the analysis on how to optimally integrate the different remediation methods in the operational strategy of the RBF wells in the pilot area from a cost-benefit point of view. Based on the report different remedial methods can be chosen and have the potential to evaluate them in different operational strategies.

Work package 4: During this package we should achieve developing new equations, which are usable in determining the effectiveness of different remediation methods. Using the measured data from monitoring campaign we should be able to detect the potential remediation techniques that require further investigation and have possibilities in riverbank filtration.

1.3 Current status (completed/ongoning/started) of the work packages, as well as status (achieved/on track/delayed) of tasks, deliverables and milestones

Work Package 2: A new optimised strategy on the operation of the RBF wells in the pilot area including the recommended remediation methods has been made based on the updated pollution transport model. With the transport models' results combined the laboratory scale experiments we could determine operational strategies that are able to keep pollutant threshold and have cost effective water filtration.

Work package 4: We determined the capability and usability of different remediation method based on their availability, their efficiency and ability to integrate in any operational strategies. We used formulas based on our laboratory scale experiments to evaluate their efficiency, and cost analysis to determine the technologies applicability. We made different evaluations to determine the optimal paths to artificial intelligence teachings, which is sufficient for future work packages.

2 FUTURE EXPECTATIONS OF THE PROJECT

2.1 Information about the intermediate results obtained or any successes

The laboratory experiments are sufficient for creating calculation methods which can be used both in examining remediation technologies and implement the kinetics in modelling environments.

The correlations and artificial intelligence learning methods determined are useful in future calculations that aim to build an optimized operational strategy for riverbank filtration built on Artificial Intelligence (AI).

2.2 Indication whether the expectation of the project is still valid or whether there could be any deviation of the project in the medium term which can affect the financing, the planning and expected results

The conclusion of laboratory experiments is on time, the results show promising correlations and useful data to be implemented in different equations and modelling systems.

The amount of data required for creating artificial intelligence-based calculations are available, and determination of teaching parameters are on time.