

ASSIGNMENT 2: MARKING RUBRIC

Task	Criterion	Outstanding (80-100%)	Good (70-79%)	Sound (60-69%)	Satisfactory (50-59%)	Unsatisfactory (<50%)
General guide to marking rubric		Technically sound work and most of the complexities and nuances of groundwater analysis addressed.	Technically sound work and some of the complexities and nuances of groundwater analysis addressed.	Mostly technically sound work and some of the complexities and nuances of groundwater analysis addressed.	Mostly technically sound work.	Work is technically unsound.
Steady-state ModFlow Modelling (40%)	ModFlow Model Set up (10%)	ModFlow model is set up correctly with no errors. 10 marks, including: <ul style="list-style-type: none"> Recharge rate (1.9E-9 m/s) is correctly added to the model and described in text (2 marks) River boundary head 570 m is correctly added to the model and described in text (1 mark) All the other parameters are checked and set up correctly and described in text (6 marks) *Intermediate marks can be given if needed.				
	Model calibration (30%)	<ul style="list-style-type: none"> Objective functions used in the calibration is properly described. 2 marks. Model calibration (of hydraulic aquifer and eastern boundary hydraulic conductivities) is conducted correctly using objective function from Moodle. 8 marks (all correct, 8 marks; mostly correct, 7 marks; somewhat correct, 5 marks; mostly incorrect, 3 marks; attempted but incorrect, 2 marks). Relevant outputs from calibration are provided. 12 marks (2 marks per graphical outputs, totally 4 graphs; 2 marks for each correct final calibrated hydraulic conductivity, totally 2 Ks). Reliability of the model given calibration results is discussed in depth. 4 marks. Discussion is concise. 2 marks. Discussion shows evidence of further reading. 2 marks. *Intermediate marks can be given if needed.				
Simulation of the proposed well configurations (20%)	Analysis (11%)	<ul style="list-style-type: none"> Method of implementing the well configuration is correct. 4 marks (all correct, 4 marks; mostly correct with some minor errors, 3 marks; mostly correct with one or two major errors, 2 marks; mostly incorrect, 1 mark). Outputs are relevant. 1 mark. Impacts from pumping is demonstrated using relevant outputs. 3 marks. Validity of the model when pumping is included is demonstrated using relevant outputs. 2 marks. Discussion is concise. 1 mark. *Intermediate marks can be given if needed.				
	Critical examination (9%)	<ul style="list-style-type: none"> Critical examination of the model is concise (1 marks) and shows evidence of further reading (1 mark). Discussion is relevant to the problem and correct (2 marks). Details provided on how model could be revised and implemented when major modelling problems occur (5 marks). *Intermediate marks can be given if needed.				
Discussion of remediation strategies (20%)		<ul style="list-style-type: none"> Recommendations are evidence-based (2 marks) and demonstrates evidence of further reading (2 marks). Recommendations are concise (2 marks) and relevant to the specifics of the case study (2 marks). Recommendations include both source control measures (4 marks) and remediation strategies (5 marks). Visuals are used effectively to illustrate keypoints (3 marks). *Intermediate marks can be given if needed.				

Structure and Clarity of Report (20%)	Presentation of report (5%)	Technical report is formatted and structured correctly (incl. section arrangement, writing mainly in paragraphs, etc.). The report does not exceed the page limit. 5 marks	Technical report has some formatting/structural issues or exceeds the page limit. 4 marks	At least 75% of report is formatted and structured correctly. 3 marks	At least half of technical report is formatted and structured correctly. 2 marks	Technical report is not formatted and structured correctly and messy. 1 mark
	Clarity of expression (incl. accuracy, spelling, grammar, punctuation; 5%)	Report is easy to read, with accurate spelling, grammar and punctuation. 5 marks	There are occasional typos but report is generally easy to read with accurate spelling, grammar and punctuation. 4 marks	At least 75% of the report has spelling, grammar or punctuation issues. 3 marks	At least 50% of the report has accurate spelling, grammar or punctuation. 2 marks	At least 50% of the report does not have accurate spelling, grammar or punctuation. 1 mark
	Referencing (5%)	<ul style="list-style-type: none"> References are relevant to the technical report and the objectives of the report. 1 mark. All references are formatted consistently and correctly. 2 marks. Citations are provided where required in text. 2 marks. *Intermediate marks can be given if needed.				
	Tables and Figures (5%)	<ul style="list-style-type: none"> Each figure/table has an appropriate caption and are properly formatted. 2 marks. All figures have sufficient resolutions and concise arrangement. 1.5 marks. Figures and/or tables are described/discussed within the same section and cited in the text. 1.5 marks. *Intermediate marks can be given if needed.				