

SOIL SALINIZATION DUE TO SALTWATER INTRUSION IN COASTAL REGIONS: THE ROLE OF SOIL CHARACTERISTICS AND HETEROGENEITY

Vahid Sobhi Gollo¹ , Muhammad Sahimi² , Eva González³ ,
Mithra-Christin Hajati³ , Jörg Elbracht³ , Peter Fröhle⁴ , Nima Shokri¹ 

¹Institute of Geo-Hydroinformatics, Hamburg University of Technology, Hamburg, Germany; ²Mork Family Department of Chemical Engineering and Materials Science, University of Southern California, Los Angeles, CA, USA; ³Geological Survey of Lower-Saxony, Hannover, Germany; ⁴Institute of River and Coastal Engineering, Hamburg University of Technology, Hamburg, Germany

APPENDIX A: FIELD MEASUREMENTS

In **Table A1**, the locations of the field measurements used in this study (as model boundaries and for model validation) are presented along with their mean values and temporal resolutions.

Table A1: Temporal resolutions and mean values of the data acquired for each of the measurement points described in **Figure 1**.

No.	Hydraulic head Δ		Salinity \bigcirc	
	Temporal resolution	Mean value [m]	Temporal resolution	Mean value [mg/l]
1	Monthly/1982-2021	-0.82	Seasonal/2007-2021	270.02
2	Monthly/1982-2021	-0.53	Seasonal/2007-2021	419.61
3	-	-	Monthly/1978-2020	313.47
4	Monthly/1992-2021	-0.01	Seasonal/1996-2021	663.44
5	Monthly/1982-2021	0.02	-	-
6	-	-	Monthly/1978-2020	366.52
7	Daily/1997-2010	0.21	-	-
8	-	-	2 × month/2010-2020	725.28
9	-	-	2 × month/2010-2020	666.30
10	-	-	Monthly/1979-2020	658.53
11	-	-	2 × month/2010-2020	630.78
12	-	-	2 × month/2011-2020	637.44
13	-	-	2 × month/2010-2020	620.80
14	-	-	2 × month/2010-2020	623.87
15	Daily/1997-2010	0.28	-	-
16	Monthly/1979-2021	16.54	Annual/1999-2001	237.44
17	Monthly/1996-2021	13.53	Seasonal/1995-2020	253.34
18	Monthly/1979-2021	12.92	Seasonal/1989-2021	237.37

Source: Elbe river basin community (FGG Elbe, status 20.10.2022) and Lower Saxony State Agency for Water Management, Coastal Protection and Nature Conservation (NLWKN).

