

Please find below our responses and actions regarding the Referee comments as well as for the general improvement of our manuscript.

- 1) Overall language control and improvement was implemented throughout the manuscript.

1. Introduction

- 2) The main text describing the study area was transferred to a new paragraph titled ‘‘2 Study area’’.
- 3) A very brief introductory paragraph to the study area was added. Several references to published works on Saronikos are first mentioned in this paragraph. Furthermore, as requested by Ref#1 the findings of those published works from other sub-areas of Saronikos were taken into account in the discussion sections. Lastly the novelty of the manuscript is briefly acknowledged in regards to the fewer sediment studies published for our study area of West Saronikos.
- 4) Lines 86-87 were modified according to the suggestion of Ref#1.
- 5) Some improvements were made to the aims of the study in the final paragraph.

2. Study Area

- 6) This new paragraph consists of text moved from the introduction section.
- 7) A small paragraph regarding water circulation was added in response to the corresponding comment of Ref#1.

3. Materials and methods

- 8) Corrections in phrasing proposed by Ref#1 throughout the Materials and methods section.
- 9) Improvement of Figure 1 as requested by Ref#1.
- 10) The sieving process was described in more detail adding the use of the 1mm sieve (as requested by Ref#1).
- 11) The fine-grained material (silt+clay) was renamed mud throughout the manuscript (as requested by Ref#1).
- 12) Figure 1 was improved as requested by Ref#1.
- 13) Improvements to the methods elaboration as requested by Ref#1.
- 14) The analytical performance of the metal analysis methods was elaborated as indirectly requested by Ref#2 and a relative table with precision and recovery data was added in the Appendix.
- 15) The statistical comparison (roughly requested by Ref#2) between stations was described.

4. Results

- 16) The content of the results section was revised following the requests of Ref#1 (terminology for sediment fractions was corrected, discussion statements were moved to the Discussion section, language control and improvement was implemented).
- 17) The horizontal distributions paragraph was complimented with the results of statistical comparison between stations as roughly requested by Ref#2.

5. Discussion

- 18) The reference Kelepertsis et al., 2001 was not altered to Kelepertzis as requested by Ref#1 because the original citation is indeed Kelepertsis, Akis & Alexakis, Dimitris & Kita, I. (2001). Environmental Geochemistry of Soils and Waters of Susaki Area, Korinthos, Greece. Environmental Geochemistry and Health. 23. 117-135. 10.1023/A:1010904508981.
- 19) The discussion section was revised with additions from the results section and further elaboration of some findings.
- 20) Section 5.6 was improved by addition of comparative remarks with sediments from East Saronikos as well as other Greek areas according to the request of Ref#1.
- 21) Table 9 was improved
- 22) Figure 7 was deleted from the discussion section and moved to the Appendix improved.

6. Conclusions

- 23) Few linguistic improvements were applied and some knowledge gaps were included in the final remark.

References

- 24) One reference was excluded upon the request of Ref#1 (Tsoutsia et. Al.) and more references were added as result of the improvements in the study area, results and discussion section.