Nat. Hazards Earth Syst. Sci. Discuss.,
https://doi.org/10.5194/nhess-2017-358-RC2, 2017

Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Recognition of spatial framework for water quality and its relation with land use/cover types from a new perspective: A case study of Jinghe Oasis in Xinjiang, China" *by* Fei Zhang et al.

Anonymous Referee #2

Received and published: 10 December 2017

This manuscript conducted a very detailed work on investigating the water quality and its relation with land use/cover types. While the data and samples have been processed carefully and rigorously, the results look reasonable and trustful. However, I have several major concerns regarding to this work.

There are two key words in the title that I cannot find strong evidence from the context to support, the "spatial" and "a new perspective". I cannot see how the authors make their findings 'spatial', since there is nothing that has been shown as a map, except for the study area (Figure 1) and land cover (Figure 6). From the Introduction, I also cannot

Printer-friendly version

Discussion paper

see why the authors labeled their work as “a new perspective”? It is new because of what? This should be made clear in the Introduction.

I am also unclear about the role that remote sensing data played in this study. What was it for, only for revealing the land use/cover types of each sample? How was it used? It was said there was a 1km buffer zone established for each sample. Then how? And why 1km? Besides, in line 246, there is the accuracy of land use/cover classification. I am wondering how these accuracy numbers were derived? Using what as reference (ground truth)?

The grammar and usage have pervasive problems. It needs to be comprehensively edited by someone with strong English language skills before publication. There are some words, such as ‘framework’ in the title, and ‘layers’ in line 19, that are very confused to me. I have no idea what they are referring to.

Line 132, Davies-Bouldin index just comes out suddenly. What is this? What is the reference for it? What do you mean by “Through the K-means . . .”? These content needs to be rewritten.

What is the DCA gradient axis in line 163? Why do you say “Therefore, the redundancy analysis (RDA) method was applied to . . .”. I cannot see connections between the sentences before the word ‘Therefore’ and those after it.

Sentence in line184-185 needs to be rewritten.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2017-358, 2017.