

## ***Interactive comment on “Relation between hydraulic properties and plant coverage of the closed-landfill soils in Piacenza (Po Valley, Italy)” by C. Cassinari et al.***

**Anonymous Referee #2**

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In general i think this paper touches upon a very interesting topic. Using plant communities to assess the soil quality. It can potentially be a very usefull study. and should be published after thorough editing.

In its current form the paper cannot be published in a high ranked journal like solid earth. The paper need substantial english editing for one. many of the phrases you use are 'talking' english (e.g. a lot of studies...., there is about this and this much..., spontaneous plants??, you made an attempt...., there are 'some' PTFs??, it is no wonder that...). try to use scientific language. But also the structure of the paper is not well developed. There is no conclusion section, which is essential for any paper there is a lot of very basic info in the paper (the van Genuchten equation, the RSME equation,

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explanation on what is field capacity). in the result section you have a list of extended figure captions. i think this should be changed into a continuous story, in which you refer to your figures and tables in brackets to illustrate your story. Many concepts are not well explained before introduced. You talk about 'components' of the ecosystem: define.

detailed comments: page 10: explain why sample 5 is so important page 10: You mention a Brazilian database: why, put into context. now falls from the sky page 13: why this footnote? the info in it should be in the study areas description. page 14: much of what is in the discussion should be in your result section. all reference to when and where athe plants were growing for instance last paragraph in discussion: fine... but what can you now say we learned from this study?? i think the major benifit of the study is not indicated clearly, neither in the objectives as well as in the end of the paper. the discussion should also focus more on putting this study in context of other studies in the introduction the benifit, the potential of the study should be clearly stated. why do we need this?? what will it bring us?? please also check the following reference and use them in your manuscript:

Van den Elsen, H.G.M., Ritsema, C.J., Seeger, M., Keesstra, S.D., in press to Vadose Zone Journal. Averaging performance of capacitance and a TDR sensors in non-uniform wetted sand profiles. Omuto, CT ; Balint, Z ; Alim, MS.,2014. A FRAMEWORK FOR NATIONAL ASSESSMENT OF LAND DEGRADATION IN THE DRYLANDS: A CASE STUDY OF SOMALIA By: LAND DEGRADATION & DEVELOPMENT 25: 105-119 DOI: 10.1002/ldr.1151 EFFECTS OF LAND USE ON SOIL MOISTURE VARIATIONS IN A SEMI-ARID CATCHMENT: IMPLICATIONS FOR LAND AND AGRICULTURAL WATER MANAGEMENT Gao, X, Wu, P Zhao, X; Wang, J Shi, Y 2014. LAND DEGRADATION & DEVELOPMENT 25. 163-172 DOI: 10.1002/ldr.1156

tables:reduce the number of tables.in the tekst not everywhere clear what the tables bring as info. describe better in the text figures: reduce the number of figures: now 12 figs for this short paper. too many. figure 1 and 2 have no legend. also the captions

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should be more descriptive. Figure 4: font too small. cannot read. merge figures 5,6,7,8. or omit some. figure 10: remove gridding (make all graphs in the same format). figure 12: not clear what we see here. also here make in same layout as all other ones

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Interactive comment on Solid Earth Discuss., 7, 757, 2015.