

SOIL Discuss., author comment AC3
<https://doi.org/10.5194/soil-2021-94-AC3>, 2021
© Author(s) 2021. This work is distributed under
the Creative Commons Attribution 4.0 License.

Reply on RC2

Heather C. Kerr et al.

Author comment on "Reusing Fe water treatment residual as a soil amendment to improve physical function and flood resilience" by Heather C. Kerr et al., SOIL Discuss.,
<https://doi.org/10.5194/soil-2021-94-AC3>, 2021

Thank you for your comments. Much of the research is on Al-WTR due to the prevalence of this type of coagulant across the world. What could usefully be added to the discussion (where you say) is that part of our rationale for using Fe-WTR with organic matter is that Fe oxides are good at stabilising carbon in marine systems (eg Lalonde et al 2021 Rusty carbon sink) and so their role in carbon stabilisation and soil structure is therefore interesting (also see Tipping and Rowe 2019). The work was supported by Northumbrian Water, who predominantly use Fe salts for water treatment, thus providing a link between this research and its investigation.

As suggested we can incorporate a discussion on physical advantages and disadvantages, although there is little data on physical changes with WTR amendment even with Al studies. The space to discuss this will come from a suggested shortening of the introduction.