Data Submitted (UTC 11): 1/3/2019 3:25:49 AM First name: Victoria Last name: McMillan Organization: Title: Comments: January 2, 2019

To the Wayne National Forest Management Plan Revision Team:

Thank you for the opportunity to participate in the Wayne Forest Plan revision process. While I do not represent a particular organization in submitting the following comments, I am writing as a result of the work I have been doing with students in the high school class that I teach on political engagement for sustainability. My students and I have been studying the Wayne revision process with the intent of submitting comments to the process. I anticipate that my students will be submitting comments of their own in the coming weeks once school is back in session.

Our national forests have the potential to play an important role in carbon sequestration and climate change mitigation. Accounting methods for documenting forest-based carbon sequestration are increasingly robust:

"...especially because of activities in the voluntary markets, big steps have been made in improving the methodologies for carbon accounting in forestry projects, especially with respect to addressing uncertainties and mitigation risks. With these methodologies, forestry projects are now better equipped for entering existing and emerging compliance and voluntary markets at a scale that does justice to the potential role of forest activities in meeting climate and national socio-economic and environmental development goals." (Wytze van der Gaast, Richard Sikkema & amp; Moriz Vohrer (2018) The contribution of forest carbon credit projects to addressing the climate change challenge, Climate Policy, 18:1, 42-48, DOI: 10.1080/14693062.2016.1242056. Accessed through https://www.tandfonline.com/doi/full/10.1080/14693062.2016.1242056)

The 2012 Planning Rule requires assessment of carbon stocks to understand how the plan area plays a role in carbon sequestration, how disturbances have affected and my affect carbon stocks, and where carbon is stored and how management practices, among other things, may influence carbon storage in the forest. The NFS has examined these questions in other regions of the US (see

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd585189.pdf). A regionally specific analysis of these issues should be part of the Wayne's plan revision process.

The potential for national forests like the Wayne to become participants in emerging national and global carbon markets should be considered in the Wayne's management plan revision process.

Additionally, the plan revision should consider the potential that designating certain areas as future old growth forest could have in meeting multiple management goals for The Wayne, including carbon storage.

"...young forests rather than old-growth forests are very often conspicuous sources of CO2 (Fig. 1a) because the creation of new forests (whether naturally or by humans) frequently follows disturbance to soil and the previous vegetation, resulting in a decomposition rate of coarse woody debris, litter and soil organic matter (measured by heterotrophic respiration) that exceeds the NPP of the regrowth2, 17-22 (Fib 1b)."

"The present paper shows that old growth forests are usually carbon sinks. Because old-growth forests steadily accumulate carbon for centuries, they contain vast quantities of it. They will lose much of this carbon to the atmosphere if they are disturbed, so carbon accounting rules for forests should give credit for leaving old-growth forests intact."

(Luyssaert, Sebastiaan & amp; Ernst Detlef, Schulze & amp; Borner, A & amp; Knohl, Alexander & amp; Hessenmöller, Dominik & amp; Law, Beverly & amp; Ciais, Philippe & amp; Grace, John. (2008). Old-growth forests as global carbon sinks. Nature. Nature, v.455, 213-215 (2008). 455(11). Accessed through https://www.researchgate.net/publication/42089659_Old-growth_forests_as_global_carbon_sinks_Nature)

I hope that you will consider the role that the Wayne can and should play in carbon storage and analyze the economic potential such a management approach might represent given the expanding regional and international carbon credit marketplace.

Respectfully submitted, Victoria ("Torrey") McMillan