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Organization:

Title:

Comments: packet #3 from ACFAN et al. Peer-reviewed research on Forest disturbance costs in climate, air and human health impacts

Please acknowledge receipt. Thank you.

This packet includes:

1. research on future trends in forest growth (Charney et al., Observed forest sensitivity to climate implies large changes in 21st century North American forest growth, Ecology Letters, 2016, doi: 10.1111/ele.12650), which documents that U.S. forests are threatened by climate change and that Ohio's Wayne is likely to have decreased rates of growth yet will be more important than ever in carbon sequestration nationally, since western forests are even more threatened by stress, heat, wildfire, and increasing drought. The uncertainty of future growth rates and increased significance of eastern public forests in carbon sequestration must be accounted for if any commercial logging is to be allowed under the new Plan.

2. Kim Naudts et al., Europe's forest management did not mitigate climate warming, Science Magazine Feb. 5, 2016 * 351(6273), 597-599, which documents significantly increased carbon emissions from managed forests in comparison to unmanaged forests, noting, "Putting 417,000 km² of previously unmanaged forest into production is estimated to have released 3.5 Pg of carbon to the atmosphere, because the carbon stock in living biomass, coarse woody debris, litter, and soil was simulated to be, respectively, 24, 43, 8, and 6% lower in managed forests compared with unmanaged forests. Differences in standing biomass between managed and unmanaged forests explain 38% of the total simulated 2.7-Pg increase in atmospheric carbon due to wood extraction." The longterm and cumulative impacts of management activities on forest carbon must be assessed for all Wayne actions that may have significant impacts, including all logging and "thinning", ORV trail building and use plans, prescribed burning, road, pipeline, wellpad and other infrastructure development, and other impactful activities.

3. And from the same issue of Science Magazine, Alkama, R. and A. Cescatti, Biophysical climate impacts of recent changes in global forest cover, Science Feb 5, 2016:351 (6273), pp. 600-604, DOI: 10.1126/science.aac8083: "Results show that in all climate zones, forest clearing produces a marked increase of mean annual maximum air surface temperatures, slight changes in minimum temperatures, and an overall increase of mean temperatures, except at the northernmost latitudes." And "This analysis reveals that the biophysical effects of changes in forest cover can substantially affect the local climate by altering the average temperature and, even more markedly, the maximum summer temperatures and the diurnal and annual variations (18, 20)." [emphasis added] The Plan must lay out how these impacts will be quantified and assessed before any Forest clearing is considered.

4. C. Petrenko and A. Friedland, Mineral soil carbon pool responses to forest clearing in Northeastern hardwood forests, Bioenergy (2014), doi: 10.1111/gcbb.12221 on the several-decades-long decline of soil carbon following forest logging and the difficulty of calculating C emissions from proposed Forest management activities. The carbon emissions from soil decades after disturbance must be calculated and taken into consideration in a NEPA-based EIS before any disturbance of the Forest is written into a Forest Plan. The impact of these emissions on climate must be considered as a cost that must be evaluated for its long term and cumulative impacts on the Forest and community.

5. D. Nowak et al, Tree and forest effects on air quality and human health in the United States, Environmental Pollution 193 (2014) 119-129. Given that the Wayne National Forest is in a region of highly compromised air

quality, increasingly threatened by USFS and other permits for deep-shale drilling and high-volume horizontal fracturing and concomitant air pollution from associated infrastructure, including pipelines, compressor stations, and venting of waste before injection, the degradation of air quality caused by logging, burning, and further oil and gas extraction and infrastructure authorized by USFS must be assessed and quantified in terms of regional health impacts per NEPA.

Sincerely,

Heather Cantino, Steering Committee Chair,

Athens County Fracking Action Network, acfanohio@gmail.com

on behalf of

Athens County Fracking Action Network, acfan.org, acfanohio@gmail.com

Buckeye Environmental Network (formerly Buckeye Forest Council), Roxanne Groff, board chair

Jean Andrews, Documentary Video Producer, "A Forest Returns: The Success Story of Ohio's Only National Forest as Told by Ora Anderson", 7 Robin Hill La

Concerned Citizens of New Concord Muskingum County, OH 43762

Meghan Wynne, Organizer