I appreciate this opportunity to provide comments in response to the United States Forest Service's Mountain Valley Pipeline (MVP) and Equitrans Expansion Project Draft Supplemental Environmental Impact Statement (DSEIS) #50036. While I provide some detail below, at the outset I wish to be clear in stating my absolute opposition to granting any permits or otherwise allowing work to proceed on the MVP, and to offer my strong recommendation that the U.S. Forest Service observe **Option or Alternative 1, or A** in the DSEIS: namely, **NO ACTION**.

My opposition to the project, as well as to any and all of the proposed amendments presented in the DSEIS, stem from many reasons too numerous to detail exhaustively here. However, my reasoning in opposition generally falls into two main categories that I will introduce below, those broad categories being roughly: A) Failure to acknowledge and assess the "big picture" aspects of the Jefferson National Forest (JNF) portion of the Mountain Valley Pipeline (MVP) project; and B) Errors and other inadequacies in the individual amendments offered by the Forest Service in the DSEIS. Individually and certainly collectively these shortcomings point to the only viable solution, which is to forever cease and desist pursuit of the MVP project within the Jefferson National Forest, and to immediately remediate to the extent possible the damage the project has already wrought in and to the JNF.

In addition to being a Virginia native and current resident, my professional background and lived experience qualify me to offer these comments with some expertise. I have variously been: an award-winning NASA engineer (pioneering both environmental as well as fluid and gaseous flow research); an award-winning economic development professional with work conducted in parallel with a special appointment to the Department of Energy; a successful entrepreneur; and an active environmental and sustainable development proponent. Through the years and in these roles, I have lived and performed my work throughout, and in support of, Appalachia, as I continue to do. I certainly respect the need and requirements to support our citizens in all ways, as I also respect the need and requirements of seeing to the health of our natural world, as it is our natural world upon which we are utterly and most fundamentally dependent.

A) Failure to acknowledge and assess the "big picture" aspects of the Jefferson National Forest (JNF) portion of the Mountain Valley Pipeline (MVP) project:

An irredeemable shortcoming in the Forest Service's assessment of MVP's fitness for being granted any permit has to do with its failure to acknowledge and assess the consequences of damage to, and worse, failure of, the pipeline once in operation. The reality of such pipelines is that, even in optimal operating circumstances, they leak and they break – significantly contaminating and poisoning their surroundings. If the surroundings in the case of such damage should involve bodies of water, the results are compounded many-fold by virtue of said poison thus being transported, distributing the poison along the way.

Given that the MVP would traverse by some means, whether over or under, many bodies of water within the Jefferson National Forest that together flow to watershed systems <u>comprising most of the watersheds of the State of Virginia</u>, and that such pipelines in operation will, repeatedly, poison said watershed systems, no permit of any kind should ever have been, nor should ever be, granted to the MVP.

Worse, the geography and geology within the Jefferson National Forest make it some of the most landslide-prone land in the country. What would in the best of circumstances already be intolerable (i.e., the aforementioned predictable and inevitable pipeline leaks and ruptures)

become magnified into nightmarish ruptures when the also predictable though not preventable landslides occur in the pipeline's path. Worse, still, such landslides – which WILL occur – will also occur with ever-increasing frequency owing to the stronger and ever more devastating storms already being produced through climate change. In other words, two more systems-level and wholly unacceptable destructive forces – i.e., landslides and climate change – are entirely unaccounted for in the Forest Service's evaluation of the MVP.

Another overall criticism has to do with the inappropriate and inaccurate attribution of economic or other value delivered by the MVP, certainly in comparison to the permanent damage it has already caused and will cause many times over ahead. Our National Security is in no way, nor will ever be, dependent upon the completion of the MVP, nor is the economic vitality of any part of our State dependent upon it. Moreover, the energy needs of our State, of the greater region, and even of the country and our allies are not nor will ever be dependent whatsoever upon the completion of the MVP. None of these factors warrants the destruction to our precious and irreplaceable Jefferson National Forest that the MVP project, in construction and in operation, has already caused, and would also in the future cause.

While not the final possible criticism that could be offered for this category, the last one offered in this document is nonetheless a significant one, and that is: Whereas the focus of the DSEIS should strictly have been the conservation of the Jefferson National Forest and the adherence to the Forest Management Plan's substantive regulations, it instead amounts to little more than a limited and wholly insufficient response to MVP's supplemental information. The DSEIS is a sad example of the Forest Service's wholesale abrogation of its responsibility and mission to protect the integrity and vitality of the forest.

B) Errors and other inadequacies in the individual amendments offered by the Forest Service in the DSEIS document:

It is inappropriate, as has been done in the DSEIS, to lose oversight and proper tending of the overall forest by carving out and sacrificially offering up individual reductive amendments to its management, as a proper forest management plan in its integrity is made up of – not independent separable facets – but rather interconnected inseparable aspects. That said, of the eleven amendments presented in the DSEIS, there are numerous flaws, each of which unacceptably downgrades or even eliminates one or more intended and fundamental purpose of the Jefferson National Forest management plan.

While there are too many of these flaws to enumerate here, some limited examples include: 1) Amendment 6c, which inappropriately allows reduction of Old Growth forest, resulting in: the loss of topsoil creation; the loss of biodiversity and ecosystem integrity; and the resultant creation of edge habitats which jeopardize interior forest species.

2) Amendments to 5, 8, 9, 11, 13, and 14, which collectively and deleteriously, as well as irretrievably negatively, impact soil health.

3) Amendments to FW-248, needlessly providing for utility corridor(s), allowing irreparable forest damage though there is no demonstrable need for same.

Again, I appreciate this opportunity to offer my remarks in absolute opposition to the Mountain Valley Pipeline in the Jefferson National Forest, with my strong recommendation for the U.S. Forest Service to observe DSEIS **Option or Alternative 1, or A**: i.e., **NO ACTION**. The Forest Service should not in any way alter, amend, negate, remove, or otherwise violate any part of its Forest Management Plan to accommodate the MVP; nor should right-of-way be granted the MVP by the Bureau of Land Management. In short, any and all aspects of the MVP and its associated construction and operation must be prohibited permanently from entering, crossing, trenching, boring through, or operating in any and all parts of the Jefferson National Forest. Thank you. Please feel free to contact me for any reason.

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