To more fully explain the nature of the problems regarding the above issues, the rationale for the same, and suggested remedies, said matters are further discussed below.

(2) *Costs for Chemical Dust Treatment on the Gravel Portion of Willow Creek Road and avoidance of treatment through water or through use of logging contracts:*

As has been referenced in the comments to the DSEIS (p. 27), each loaded logging truck is the equivalent of 4000 to 7000 cars traveling down the road and the estimated number of truckloads is 6000-7000 on this project over a period of eight years. Validating these and other statistics regarding the INCREDIBLY increased use and damage to Willow Creek Road, are the statistics and authorities utilized earlier in this project (e.g., as "Updated Road Damage from Vehicles" appended to the original Objections we filed on the 2020 DROD and FEIS), which are incorporated in the chart immediately below [note that the sources referenced in the summary footnotes have are appended to the Comment to the FEIS which we filed]:

Projected Road Damage from Logging Trucks vs. Historic Traffic

Normal usage – 433 car trips/day[1] x 365 = 158,045 car trips/year

Alternative 2 – 158,045 x 8 years = 1,264,360 car trips normally during the project

Assuming logging trucks are loaded to weigh approximately 80,000 pounds[2] and have 5 axles, cars weigh approximately 4,000 pounds and have 2 axles, and using the GAO's "fourth power" calculations[3]:

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[1] Road usage statistics measured east of Willow Creek Cutoff Road; from communication with Ravalli County Road Administrator John Horat, cited in Goheen Comments of 7/30/18

[2] Federal Interstate Load Limit – see Document 8 attached to Goheen Comments of 7/30/18

[3] https://www.denenapoints.com/relationship-vehicle-weight-road-damage/ quoting the applicable formula from the federal General Accounting Office (https://www.gao.gov/assets/130/127292.pdf) - see Document 6 attached to Goheen Comments of 7/30/18

Logging Truck – 16,000 lbs./axle ÷ Car – 2,000 lbs./axle = 8 times more weight per axle
8 x 8 x 8 x 8 = 4,096 times more road damage from a loaded logging truck than an average car.

Assuming logging trucks are loaded to weigh approximately 92,000 pounds[4] and have 5 axles:

Logging Truck – 18,400 lbs./axle ÷ Car – 2,000 lbs./axle = 9.2 times more weight/axle
9.2 x 9. x 9.2 x 9.2 = 7,164 times more road damage from a loaded logging truck than an average car.

Assuming 7,000 trips of loaded logging trucks, each doing 4,000 – 7,000 car trips of damage

Minimum - 7,000 trips x 4,000 car trips per logging truck trip = 28,000,000 car trips
Maximum - 7,000 trips x 7,000 car trips per logging truck trip = 49,000,000 car trips

Assuming road damage from trucks equivalent to 28 million - 49 million car trips:

Minimum - 28,000,000 from trucks ÷ 1,264,360 normal usage = ~22 times more road damage from loaded logging trucks than normal usage

Maximum - 49,000,000 from trucks ÷ 1,264,360 normal usage = ~39 times more road damage from loaded logging trucks than normal usage

Note: this estimate <u>only</u> accounts for loaded logging trucks coming down Willow Creek Road. It <u>does not include</u> road building/maintenance equipment, Forest Service trips for tree marking, logging supervision, etc., unloaded trucks going up, or logging crew vehicles, which would obviously add significantly more damage. This estimate also assumes that weight distribution between logging truck axles is even. If the distribution is uneven, road damage would increase.

Given the dramatic statistics above, it is more than obvious that there will be significant dust generated by the log hauling operation on the gravel portion of Willow Creek Road. The extreme likelihood that will occur is demonstrated by the factors referenced in the WRAP Fugitive Dust Handbook found in the Project website documents under the "Supporting Documents" tab, then the "Supplemental EIS Documents," item "Supp-Air-002." Section 6.1 of that document indicates that quantity of dust on unpaved roads "varies linearly with the volume of traffic." (As mentioned in

[4] http://forestry.msuextension.org/forestproducts/timber_haulers.html - MSU Forestry Extension findings of typical log truck weights - see Document 5 attached to Goheen Comments of 7/30/18