Data Submitted (UTC 11): 1/9/2020 6:56:52 PM First name: Dietrich Last name: Hoecht Organization: Title: Comments: Expanding on my earlier comments #5 and #6 re. herbicide application and waterway protection:

Comment #10: Broader ecological health protection of forest flora and fauna is needed

a. the application of herbicide via spray method is potentially highly flawed in its target effectiveness. Do the operators get intensively schooled in IFO (from the aircraft nomenclature 'identification friend or foe')? How does one identify a patch of, say, showy orchids out of bloom from six feet away, while spraying? Besides, there is probably a good chance that the operator does not communicate well in the English language to be well schooled and also to understand specific directions.

b. to expand on the chance of glyphosate being washed into riparian zones on slopes: we must recognize that a downpour can effect significant run-off on slopes because the duff/top soil layer is typically just two to four inches thick, which minimizes a sponge like absorption capability. This matter is further aggravated by our prevailing impervious clayey subsoils, which shed water, not absorbing it. Even if upland spraying is done, often such an area is just 100 feet away from a small creek, hence a real probability of herbicide contamination.

c. the entire proposal for the foothills project, including its appendices, does only address protection of plants, mostly very specific ones, not a wider scope of ecological effects on inter-related fish, amphibious, insect, bird, mushrooms and other living species, a hugely important matter of diversity and health of living things.
d. literature search reveals the following glyphosate impacts, which are not addressed in the proposal: morphological changes in frogs (Relyea Ra et al 2012); lizard liver toxicity and hormonal effects (Vonderame et al 2019); earthworms and arbuscular mycorrhizal fungi (Zaller et al 2014) with sizable changes and reduction in soil water infiltration.

e. Further, note that glyphosate application has now been banned in Austria, Italy, the Netherlands, plus such bans are to be effected in Germany and France.

f. The Bavarian government specifically wants to protect bees from glyphosate, citing that it affects their gut bacterial flora

g. The EPA plans to enact new regulations around water and cites potential risks to birds and aquatic plants

Comment #11: Broader concerns for forest flora and fauna are not covered in the Foothills plan

a. the plan in Table 9 on page 86 (aquatic resources) does recite various observation/control measures like on tree canopy, but has no specific mention on recording the health of aquatic plants and fauna.b. likewise, the Botanic Resources Specialist Report only lists specific plant species to be protected and monitored, nothing as to an interrelated diverse community

It appears that the Foothills plan creators focus only on species of trees and botany. They show scant awareness of what constitutes a healthy forest, namely that fish larvae eat macro algae, that dragonflies eat fish larvae, that birds eat dragon flies and caterpillars, that frogs and toads eat bugs and slugs, that millepedes and earthworms eat decaying leaves, that moles eat grubs, that voles eat rhizomes and roots, that owls eat voles, and that I like chanterelles and honey. All of us living things ingest glyphosate from and within this food chain.

And the Forest Service wants to cover 70,000+ acres with this herbicide stuff?