

Mr. Helmick,

I am writing this e-mail to you and the Planning Commission, so as to forward the assessment and report of Jim X. Borzym, PE, INCE. Mr. Borzym is an Acoustical Engineer, retained by me, to review the Noise Impact Assessment, dated 25 May, 2017, by Stuart McGregor of EDI for WOLF.

Mr. Helmick, I believe I have mentioned to you previously that I am a retired Mechanical Engineer, formerly registered in Nebraska, but I am afraid I have no acoustics training. I read the Noise Impact Assessment by EDI when it was first posted.

I, like probably many County staff could see that the report admitted that several residents would be within clear ear-shot of the howls of these hybrid dogs. I read the discussion by the author citing the contents of Chapter 24 of the Harris Reference (Acoustical Engineering Standard Reference) where the quotation essentially says "You'll get used to it." The represented source of the quotation gave the statement a sense of scientific nobility. I imagine County staff noticed the same citation. Many thinking "Well, maybe that is true." I have to say this reference just didn't pass my "smell test". In response, I sought the advise of another PE in Acoustics. That is Jim X. Borzym of Borzym Acoustics.

As a side note, I have detected a nearly total lack of understanding and sense of dread among the County staff regarding the reasonable definition of "Noise Disturbance" as defined in the Noise Ordinance. This was my experience in previous conversations with you and written communications from County staff. I have learned that the term of art in Acoustical Engineering is noise-induced annoyance, the definition of which matches nicely with the Larimer County definition of "Noise Disturbance" as expressed in the LC Noise Ordinance and Code. I have asked Mr Borzym to write about your (our) Noise Ordinance.

I am attaching two documents by Mr. Borzym. The file titled Response to EDI Noise Assessment includes Mr. Borzym's findings and critique of the EDI document. The file titled Report on Noise-Induced Annoyance presents the proper analysis and consideration of the data as presented in the EDI Study in terms of the appropriate application of Chapter 23 of the Harris Reference and the Larimer County Noise Ordinance.

In the file "Response to EDI Noise Assessment" Mr. Borzym points out the numerous flaws that flow through this Noise Study. The most egregious of which, is the very disappointing misapplication of the principles of Chapter 24 of the Harris reference. This curious presentation of dubious fact and other misrepresented statements leads this retired Professional Engineer to conclude that the Noise Impact Assessment authored by EDI and presented by WOLF is either unprofessional and sloppy engineering at best, or at worst, meant to mislead the County staff as well as the public.

EDI's author mentions Chapter 23 as a relevant reference regarding noise induced annoyances, which is true. Yet this most important subject and the contents of Chapter 23 are totally dismissed and never discussed. Instead the EDI author directs the reader to a discussion from a different chapter (Chapter 24 of the Harris Reference) which regards worker performance in a noisy industrial environment where it is stated in essence that "the worker's performance will improve as they get used to the noisy environment". The actual recitation by the EDI author leads the reader to believe that science has proven that people will get used to noises that are annoying. Intuitively, this is not the case, and that

supposition is supported in this case by properly applied engineering principles and citations of Mr. Borzym.

One has to wonder why a Professional Engineering firm such as EDI would produce an engineering report such as this. In my professional career I would not think of producing a document that could be seen as meant to mislead the reader, no matter how much pressure I might be under from anyone, including the paying client. In my mind, I am led to wonder if EDI has become an agent of sloppy, flawed engineering, or an agency willing to modify their standards and bow to client pressure and agree to deceive their audience. Either possibility is unpalatable to me and should not be acceptable to Larimer County

I encourage the Planning Commission to present both the original EDI study and the (PE Stamped) remarks of Mr. Borzym to members of the County staff that are actual registered Professional Engineers. I would ask them to read all parts of these works and ask themselves if they would have presented a report in their area of expertise that was similarly misleading to that of this EDI work product. The National Society of Professional Engineers has a Code of Ethics that a registered PE is supposed to constantly apply. That code is also attached for your reference. I ask the Larimer County PE's to decide if any of the Canons and Standards of this Code have been violated here.

These revelations regarding a seriously flawed report lead me to question other aspects and assumptions in the work. Could the very data the report is based upon be understated? Consider please that a simple internet search will yield references that state that the peak sound level of a single wolf howl range from 90-100 dBA and 90-105 dBA, to cite two reports. The 90 dBA as used in the report is actually the lowest figure mentioned in any of these sources. Consider also that the audibility tables are calculated at the residence and not at the property boundary. If the average of the source sound level of these hybrid wolf-dogs was indeed near 95 dBA for a single animal, the table would show that 57% of the locations considered would be in the "Clearly Audible" (annoying) range for these hybrid wolf-dog chorus howls.

I need to mention here that the frequency of the chorus howls very well may be understated as well. The sketch review material presented by WOLF in September '16 claimed 5-6 outbursts of chorus howls by these hybrid wolf-dogs per 24 hour day/night cycle. In the June '17 Public Hearing Application by WOLF the frequency is proposed to be 5 -10 times per 24 hour day/night cycle. A former manager of a similar wolf-dog facility located in Colorado stated that the larger the number of animals that are located on the premises the more often the group will burst into the chorus howl. Doubling the number of animals from the current 30 in Rist Canyon to 60, where ever WOLF II may end up, may very well increase the frequency of these noise disruptions beyond expectations. Additionally, this source stated that the presence of any wildlife, turkeys, deer, elk etc. would set the wolf-dog group off in a tremendous noise event. Day or night.

I realize a governmental organization such as Larimer County hopes to always count on the accurate and/or ethical content of a report from a Registered PE. After all the PE takes an oath and is legally bound. As a former PE myself, I am forced to inform you that your comfort actually may be unfounded in this case.

This Engineering Report (Noise Impact Assessment by EDI) is flawed, it appears to be either very inferior engineer work or unfortunately a possible manipulative and deceptive attempt to willfully paint a better

picture for WOLF than should be expected. In either case, the results if accepted without question by the County, would be to the detriment of the local residents and citizens of Larimer County.

Considering that possibility, please also consider that an act by Larimer County of approving this Land Use Application effectively strips all Larimer County citizens from any future right to seek relief through the terms of the Larimer County Noise Ordinance. No matter how much the predictions of this flawed Noise Study might be exceeded. (See LC 6-77)

Sanctioning the ill effects of an offending pet animal facility to either commit Noise Disturbances at will or interfere and impair the traditional use of land for ranching and the ability of citizens to make a living is not in the interest of Larimer County government or the future of the County. Approval of this Land Use Application will be tantamount to such a sanction in my opinion.

I believe the information contained here is highly important and relevant to your task of determining the fate of the WOLF II Special Use Application. In my mind, the approval of such request would be a willful disregard of the relevant facts and detrimental to the residents and the County at large.

I defer to your determined and careful consideration of relevant and proven facts only, in your decision.

With Best Regards,

John C. Rehberg, PE Retired