Date: 12/10/1998 11:13 AM
Sender: Jim Rorabaugh
To: Ronald McClendon
cc: Angie Brooks; Tom Gatz
Priority: Normal
Subject: Re: Fort Huachuca Early Alert

Ron:

Answers:

Question 1 (time extension): The consultation was extended to December 31, at which time we are supposed to have a final opinion. Obviously we will need to extend it once again (perhaps to the end of February).

Question 2 (indirect growth and jeopardy): In my opinion, even without the indirect, interrelated, interdependent growth inducing effects, the groundwater pumping at Fort Huachuca alone (~2350 acre feet per year) results in jeopardy and adverse modification for the flycatcher and jeopardy for the water umbel. The overall deficit in the water budget is 7000 acre-feet per year.

Question 3 (balancing the water budget): The RPA for the water umbel and flycatcher intends to balance the water budget (water use = water supply) in the action area (Sierra Vista subwatershed). Without a balancing of the water budget, the cone of depression in the aquifer continues to grow and the river will at some time dry up. The best information available is that habitats will be significantly affected beginning about 2020. Maintaining the status quo means that we maintain a situation where the water budget is in deficit and the river dries up in the future.

Question 4 (the USGS review): The early alert was changed at the Regional Office level in regard to the USGS review of the hydrology analysis, and I do not agree with the way it reads at present. I suggest DC take a look at the opinion and USGS's letter and make their own determination. However, the USGS letter says "we found in general that the author(s) did an excellent job of reviewing what has been written, both published and unpublished, about the San

Pedro and paraphrasing the findings." They also say "our major comments relate to the conclusions drawn from the information presented." If one goes on to read the letter, I think they will conclude that USGS thinks we did not accurately portray the level of uncertainty about the causes of current observed declines in river baseflow. We have revised the document accordingly. You should be aware that the modeling efforts and studies reviewed in the opinion all indicate that as we extrapolate to the future, effects to the river from the groundwater pumping at Fort Huachuca and Sierra Vista become more and more certain, because the cone of depression continues to grow as long as the water budget is in deficit. Since the effects of the proposed action are future effects, not current effects, we can say with some certainty that if conditions continue, the river will go dry and habitats will be lost.

:Jim

_____ Reply Separator _____

Subject: Fort Huachuca Early Alert
Author: Ronald McClendon at 2AL~MAIN
Date: 12/10/98 8:56 AM

Jim,

The WO has asked the Region if we can answer the questions below regarding the Ft. Huachuca early alert. Please review these questions and provide me with your thoughts and answers as soon as possible. IT appears that the early alert is going to be forward on, but we will probably have to have answers for these questions since they have tagged.

Ron

_____ Forward Header _____

Subject: Fort Huachuca Early Alert
Author: Susan Pultz at 9AR~FWE1
Date: 12/9/1998 6:47 PM

Can you help me out with these questions? I've attached a copy of our transmittal memo to him. If you could have someone get back to me by tomorrow, I'd appreciate it. I'm cc'ing Ron in case you're not in. He answered a few of my questions before on this one. Thanks!

Susan

_____ Forward Header

Subject: Fort Huachuca Early Alert
Author: Gary D Frazer at 9AR~MAIN
Date: 12/9/98 5:43 PM

Susan -- A few questions on the Early Alert:

Can I assume that your transmittal memo is correct and the EA wrong in stating that the consultation has been extended through Dec 31? Is this the agreed upon date for delivery of the draft BO, or was it expected that a final BO would issue by this date?

Were it not for the indirect growth inducing effects of the Fort, would we be in a jeopardy situation?

Am I correct that the comprehensive water and habitat management plan described in the RPA will seek to balance water use and recharge throughout the entire action area, included those off-Fort areas affected by interrelated or interdependent groundwater pumping? Does this plan simply need to maintain the status quo in the condition of the aquifer?

Is there any other expert analysis to balance USGS' concern with the hydrologic analysis upon which the analysis of effects on the water umbel were apparently based? Does this analysis also govern our finding on the flycatcher?

I'm moving this on, but will include a copy of this note in the package. Pls respond to the extent you can ASAP. -- GDF