Response to Comments

EPA received comment letters from the Center for Biological Diversity and the Huachuca Audubon Society on the March 2010 Draft Environmental Assessment for the Town of Huachuca City's Effluent Recharge Project.

Comments from the Center for Biological Diversity (CBD)

CBD#1 **EPA and DOD fail to evaluate and fail to fully disclose the proposed action's effects on the Babocomari River, the confluence of the Babocomari River and the San Pedro River, and the endangered Huachuca water umbel found in the confluence's immediate area.**

Response: EPA has prepared the *Draft Hydrologic Analysis of the Huachuca City, Arizona Wastewater Ponds* dated February 18, 2011. A copy of the analysis has been included as an attachment to the revised EA.

CBD#2 **Planned development of Fort Huachuca's airport property by the City of Sierra Vista must be included in any evaluation of environmental baseline, any cumulative effects analysis, and in the list of interconnected planned/forseeable projects.**

Response: EPA contacted Mary Jacobs, the Assistant City Manager for Sierra Vista, on April 11, 2011 regarding the status of the planned development adjacent to the Sierra Vista Airport. This development was contingent upon the transfer of 203 acres of property from the Fort to Sierra Vista. This land transfer was never completed and there are no future plans for a transfer to occur.

CBD#3 **None of the documents cited by EPA in this entire scheme (EA FH AAR 2000, BE FH AAR 2000, BA 2006, BO 2007, Record of Environmental Consideration, and the EA) examine the effect of removal of the effluent water on the Babocomari River or the confluence of the Babocomari and the San Pedro Rivers.**

Response: See response to CBD#1.

CBD#4 **Not included on EPA's webpage list of supporting EA documents is the US Fish and Wildlife Service's November 21, 2008 "concurrence" with Fort Huachuca's conclusion that the proposed action will have no effect on the lesser long-nosed bat *(Leptonycteris curasoae yerbabuenae* = Leptonycteris yerbabuenae), Mexican spotted owl *(Strix occidentalis lucida),* Sonora tiger salamander *(Ambystoma tigrinum stebbinsi),* and Huachuca water umbel *(Lilaeopsis schaffneriana* var. *recurva).***

Response: The 2008 US Fish and Wildlife Service Biological Opinion has been attached to the revised EA.

CBD#5 **The EA fails to examine the action's facilitation/promotion of groundwater dependent growth that cannot take place without the proposed action.**

Response: The Town's existing wastewater treatment capacity is estimated to be 370,000 gallons per day. The Town's treatment capacity is currently limited to 220,000 gallons per day in accordance with the State of Arizona's Aquifer Protection Permit (APP) to ensure the protection of surface water quality. The proposed project will virtually restore the Town's existing capacity by providing storage and conveyance of up to 360,000 gallons per day.

Furthermore, the additional capacity beyond 220,000 gallons per day will allow the Town to make additional sewer connections, thus increasing its population size. Additional groundwater pumping within the regional groundwater aquifer may result in order to provide the potable water necessary for new residences or commercial developments. However, the impacts to the regional groundwater aquifer from additional groundwater pumping will be minimal since the wastewater generated from the Town will be recharged at the Fort's East Range Recharge Facility and back into the same regional aquifer.

CBD#6 **The EA does not fully evaluate an alternative recharging the wastewater nearer to its source because "the third alternative, the construction of a wastewater treatment facility was determined to be cost-prohibitive."**

Response: The revised EA included a third alternative of installation of a wastewater treatment facility at the Town with discharge to the Babocomari River. See section 2.2 of the revised EA.

CBD#7 **The EA does not examine these costs in light of the planned non-sustainable, local groundwater-dependent growth requiring an upgrade to Huachuca City's wastewater treatment plant and the single source of funds (Federal).**

Response: See response for CBD#6.

CBD#8 **The EA does not recognize that Huachuca City needs an upgrade to its sewage treatment plant in order to accommodate further groundwater-dependent growth resulting in further net loss of water to the San Pedro River.**

Response: See response to comment CBD#5.

CBD#9 **Where is the analysis that this action facilitates nearly 100% increase in groundwater-dependent growth locally in Huachuca City that would not occur otherwise?**

Response: See response to comment CBD#5.

CBD#10 **Where is the analysis about the cost of electricity and the carbon offsets required for the life of the selected proposed alternative versus the cost of an alternative featuring a local treatment plant?**

Response: Section 4.24 of the revised EA discusses energy use.

Carbon offsets can be used as mitigation to energy when it is determined to be a significant impact on the environment. Neither Fort's 2000 EA nor the EPA revised EA determined that energy consumption would have a significant impact on the environment.

CBD#11 **This violates NEPA requirements to explore a full range of alternatives particularly given the fact that the project intends to promote, facilitate and support non-sustainable, groundwater dependent growth in Huachuca City and beyond (i.e. airport development, Babocomari Place development, etc.)**

Response: See response to CBD#6.

CBD#12 **Where is the examination of the effect of closing these ponds on the lower Babocomari River, its confluence with the San Pedro River, and endangered Huachuca water umbel?**

Response: See response to CBD#1.

CDB#13 **Why was it "determined that this option would not be a reasonable nor practical approach to the treatment of Huachuca City's wastewater"?**

Response: See response to CBD#6.

CBD#14 **And why does EPA believe that Huachuca City is exempt from paying for its non-sustainable impacts?**

Response: In EPA's budget in 2003 and 2004, Congress included a total of $1,590,500 as special appropriation funding for the Town of Huachuca City for an effluent recharge project. The EPA grant provides 55% of the total project cost. The Town's share of the total project cost would be 45%.

CBD#15 **The "climate" section fails to address climate change related issues. Local recharge near source would have less negative impact on climate change.**

Response: The proposed project would pump the Town's wastewater to Fort Huachuca's wastewater treatment plant. It is estimated that 1,463 kWh/day of energy would be used for the wastewater conveyance. This is considered to be minimal since the Fort purchased 128,481,600 kilowatt hours of energy in 2010.

CBD#16 **Where is the data supporting this statement? In reality, leaching fromthe ponds is occurring. The amount and the effects of the water on sustenance of the Babocomari is not evaluated by the EA.**

Response: See response to CBD#1.

CBD#17 **The EA mentions but does not analyze the critical short term importance of strategic recharge. The proposed action, not only promotes and accommodates additional non-sustainable, groundwater dependent growth, it moves recharge water away from an area where it is critically needed.**

Response: See response to comment CBD#9 regarding groundwater dependent growth. Information regarding recharge of the Town's wastewater can be found *Draft Hydrologic Analysis of the Huachuca City, Arizona Wastewater Ponds* dated February 18, 2011. A copy of the analysis has been included as an attachment to the revised EA.

CBD#18 **The section "3.12 Endangered or Threatened Species and Critical Habitat," fails to discuss and analyze (1) the effects of the project's promotion of non-sustainable, groundwater dependent growth, (2) the effects of the withdrawal/transfer of rechargeable water from the area of its source, (3) the effects of likely further degradation of Huachuca water umbel Critical Habitat along the Babocomari River and (4) effects resulting from the close proximity of the project ot the known endangered Huachuca water umbel found near the confluence of the Babocomari and the San Pedro Rivers.**

Response: See response to comment CBD#9 regarding groundwater dependent growth. Information regarding recharge of the Town's wastewater can be found *Draft Hydrologic Analysis of the Huachuca City, Arizona Wastewater Ponds* dated February 18, 2011. A copy of the analysis has been included as an attachment to the revised EA. See section 4.7 of the revised EA regarding impacts to the Huachuca water umbel and its habitat.

CBD#19 **In addition, it fails to evaluate full range of alternatives probablyby succumbing to the questionable financial rational already identified.**

Response: See response to comment CBD#6.

CBD#20 **The major effects are not along the pipeline route. As already identified, the major effects of this action involve (1) the facilitation and promotion of San Pedro River-damaging, non-sustainable new groundwater-dependent growth, including the transfer of airport land from Fort Huachuca to the City of Sierra Vista and its resulting growth, and (2) removal of recharge water from its local source in an area of need.**

Response: See response to comment CBD#2 regarding the transfer of airport land from Fort Huachuca to the City of Sierra Vista. See CBD#1 regarding the removal of recharge water from its local source in an area of need.

CBD#21 **The statement that the "Proposed Action is not anticipated to affect the rate of population growth and consequently result in an increased demand for groundwater," is simply not true.**

Response: See CBD#5.

CBD#22 **Currently there is leakage from the Huachuca City wastewater treatment ponds. The leaked water is undoubtedly providing base flow to the Babocomari.**

Response: See response to comment CBD#1.

CBD#23 **The statement that,"…the SPRNCA would not be adversely affected by the project. The proposed activities would have no direct or indirect impact on the river" is simply not true.**

Response: The Proposed Action is to construct a storage pond and gravity flow pipeline at the Town's existing wastewater treatment facility which would connect to the Fort's wastewater conveyance system for treatment at the Fort's wastewater treatment plant. After treatment, the Town's wastewater would be recharged at the Fort's East Range Recharge Facility. The recharge of the Town's wastewater into the area's regional aquifer will have a benefit to the San Pedro River basin.

CBD#24 **It is not true that the "existing facilities…do not pose a limit on Huachuca City's capacity to grow." Failure to secure a valid Aquifer Protection Permit will result in an inability to allow more sewer hook-ups.**

Response: The Town's existing wastewater treatment facility capacity has been set by the State of Arizona's Aquifer Protection Permit (APP) at 220,000 gallons per day. However, the Town's facility was designed to have a treatment capacity greater than 220,000 gallons per day since two additional treatment ponds exist at the facility but are not being utilized. (The estimated treatment capacity at the Town's Wastewater Treatment Facility is 370,000 gallons per day.) The limit of 220,000 gallons per day was set by the APP to prevent potential contamination of

surface waters from the existing treatment ponds if flooding occurred. If permanent flood protection was provided at the Town's wastewater treatment facility, and approved by the State of Arizona, the Town would be able to treat a greater volume of wastewater.

Comments from the Huachuca Audubon Society (HAS)

HAS#1 **We were surprised to find only one alternative analyzed in the EA, in addition to the baseline No Action Alternative.**

Response: See response to comment CBD#6.

HAS#2 **It strikes us as strange that an EA is being done for a project that is 75% or more already complete, namely all the construction on Fort Huachuca property.**

Response: The revised EA only considers the EPA-funded project with the Town. Specifically, the revised EA considers the impacts from the storage pond and the discharge pipeline connecting to the Fort's forcemain.

HAS#3 **And finally, we think a FONSI is an inadequate and inappropriate conclusion for the project and we request that an Environmental Impact Statement be prepared.**

Response: No significant impacts were identified in the environmental review process that would trigger the preparation of an Environmental Impact Statement.

HAS#4 **In Section 1.1, there is reference to the system being designed to accommodate 100 gallons per capita per day (gpcd) of sewage, the majority of this being produced by the residential section.**

Response: It is standard engineering practice to assume 100 gallons per day when estimating water consumption. For planning purposes, 100 gallons per capita per day is assumed with 80% of that going to wastewater. Another 20% is assumed for infiltration and inflow which would bring the number back to 100 gallons per day per capita. According to Arizona Department of Water Resources, the Town's annual gallon per capita per day (GPCD) was 106 in 2007 and 117 in 2008.

HAS#5 **In Section 2.3, in discussing the potential costs of treatment, the Town Clerk for Huachuca City is cited as saying the average household sewer fee is $12/month, which represents the cost for 3,000 gallons per month. That represents 100 gallons per day per household, not per person. Households appear to be estimated at 2 people per household for Huachuca City. So**

Section 2.3 appears to reference a usage figure that is half of what is cited in Section1.1 as gpcd. Can you please clarify the gpcd computations and assumption used in these sectors.

Response: In the March 2010 EA, Section 2.3 included the current sewer fees for the Town. At the time, the sewer fees were $10 for the first 2,000 gallons and $2 for each 1,000 gallons with the average household paying $12 per month. This information would indicate that each household (typically more than one person) produces about 100 gallons per day of wastewater and not 100 gallons per day per person as used in the calculation for the planning and design for the Fort's lift stations and forcemain.

As mentioned in response to comment HAS#4. The assumption of 100 gallons per day per capita is considered standard engineering practice when projecting water use demand during project design. In addition, it includes an assumption of infiltration and inflow which was not calculated into the above 100 gallons per household estimate.

HAS#6 **Also in Section 1.1, this same apparently high gpcd is used to extrapolate out to estimate sewage based on estimated population in 2050, presumably to justify the capacity need. Is this figure apparently twice what it should be or needs to be? And if efforts at further water conservation and efficiency are effective in the area, how might that projection for effluent available for recharge be modified?**

Response: See response to comment HAS#4 regarding the use of 100 gallons per day estimate of water consumption

The proposed project at the Town, as well, as the Fort's three existing lift stations and forcemain pipeline, were designed to accommodate for a population projected to be 3,600 residents within the Town's sewage service area by 2050 (or 100 gallons per capita per day of sewage). Since the design of the Town and the Fort's projects, certain housing developments, assumed in the population projection of 3,600, are now no longer viable. However, the existing lift stations and forcemain was constructed to convey 360,000 gallons per day.

Local water conservation and efficiency efforts will reduce the amount of water that will need to be conveyed to the Fort's wastewater treatment plant.

HAS#7 **In Section 1.1, the energy requirements to operate the force main and lift stations are predicted as 1,463 kWh/day. While this seems like a lot, there is no reference provided as to whether this represents a negligible 1% increase or a more significant 10% increase in the current total Fort Huachuca electrical consumption.**

Response: See CBD #15.

HAS#8 **In Section 2.1, under Sewage Lift Stations, we wonder about the need for the Huachuca City sewage to remain "wet". In other words, will working towards better water efficiency in Huachuca City be viewed as counterproductive because it would become problematic to pump sewage that is more solid uphill 435 feet?**

Response: Although with increased water efficiency the concentration of the Town's wastewater will increase, it will not affect the pumping capacity of the forcemain.

HAS#9 **In Section 3.12, there is an admission that biological surveys of the existing sewage treatment ponds were not done.**

Response: There have been no formal biological surveys conducted at the Town's existing wastewater treatment facility. However, on November 21, 2008, the U.S. Fish and Wildlife Service determined that there would be no impact to threatened or endangered species from the proposed project.