

**PROGRAMMATIC BIOLOGICAL ASSESSMENT FOR ONGOING AND
FUTURE MILITARY OPERATIONS AND ACTIVITIES AT
FORT HUACHUCA, ARIZONA**

ERRATA:

Item 1:

ES-2, Executive Summary. Replace paragraphs 4 and 5 with the following, “Ongoing and future activities by Fort Huachuca may affect, but are not likely to adversely affect the following seven species: Canelo Hills ladies’ tresses, bald eagle, jaguar, yellow-billed cuckoo, spikedace with proposed critical habitat, Gila topminnow with critical habitat, and desert pupfish with critical habitat.

Under current conditions, activities at Fort Huachuca have the potential to adversely affect the following seven species: Huachuca water umbel, Mexican spotted owl, lesser long-nosed bat, Sonora tiger salamander, southwestern willow flycatcher, Ramsey Canyon leopard frog and Huachuca springsnail. This includes critical habitat designated for the Huachuca water umbel and southwestern willow flycatcher.”

Item 2:

Page i., Table of Contents, Section 1.1, “Objective” is missing from the Table of Contents.

Item 3:

Page viii, List of Tables, Table 12.5 (page 184) needs to be added to the List of Tables.

Item 4:

Page 3, Section 1.2, paragraph 3, should be replaced with the following, “The proposed action described in Section 2 includes ongoing and future water conservation measures which are designed to decrease aquifer storage and natural discharge attributable to Fort Huachuca. The Fort Huachuca Integrated Natural Resource Management Plan (INRMP), Fort Huachuca Integrated Wildland Fire Management Plan (IWFMP) and Agave Management Plan are conservation measures and are considered part of the ongoing and future military activities evaluated in this BA.”

Item 5:

Page 30, Section 2.5, paragraph 2, should be replaced with the following, “Fort Huachuca plans to review the INRMP that was completed in November 2001 (Appendix M), to ensure that the plan continues to help guide natural resources management on Fort

Huachuca while supporting Fort Huachuca's military mission. The INRMP ensures that natural resource conservation and military activities are integrated and consistent with federal stewardship requirements. The INRMP includes planning for inventory and monitoring, vegetation, wildland fire management, agave management, erosion and nonnative species control, and recreational management. The INRMP and all of its components, to include the Fort Huachuca Agave Management Plan (Appendix D), are included in this BA as part of the proposed action.”

Item 6:

Pages 97 – 104, Sections 3.7.3.1 – 3.7.7, have been revised and should be replaced with attached pages.

Item 7:

Page 110, Section 3.9, first paragraph, first sentence. Replace sentence with the following, “The USFWS provided Fort Huachuca with a list of threatened, endangered, proposed, and candidate species known to occur or have occurred in Cochise County that will be considered in this BA (Table 9).”

Item 8:

Pages 183 – 184, Section 4.8, have been revised and should be replaced with attached pages.

Item 9:

Page 186, Section 4.10, paragraphs 4 and 5. Replace paragraphs 4 and 5 with the following, “Ongoing and future activities by Fort Huachuca may affect, but are not likely to adversely affect the following seven species: Canelo Hills ladies’ tresses, bald eagle, jaguar, yellow-billed cuckoo, spikedace with proposed critical habitat, Gila topminnow with critical habitat, and desert pupfish with critical habitat.

Under current conditions, activities at Fort Huachuca have the potential to adversely affect the following seven species: Huachuca water umbel, Mexican spotted owl, lesser long-nosed bat, Sonora tiger salamander, southwestern willow flycatcher, Ramsey Canyon leopard frog and Huachuca springsnail. This includes critical habitat designated for the Huachuca water umbel and southwestern willow flycatcher.”

Item 10:

Page 187, number 9. Replace paragraph with the following, “The impact of groundwater pumping by Fort Huachuca occurs mainly downstream of the Charleston gage in a reach of the San Pedro River that has been historically intermittent. Aquifer storage change attributable to Fort Huachuca ranges from 1,155 to 1,942 acre-ft/year in 2005, and from 631 to 1,418 acre-ft/year in 2016 (based on a population estimate range of 18,543 to

32,179 persons). Change in natural discharge attributable to Fort Huachuca ranges from -128 to 516 acre-ft/year in 2005, and -556 to 87 acre-ft/year in 2016, with the negative numbers indicate a positive impact on the groundwater system from Fort Huachuca's mitigation efforts. Baseflow changes attributable to Fort Huachuca range from -0.06 to 0.3 cfs in 2005 and -0.3 to 0.04 cfs in 2016. Therefore, Fort Huachuca's maximum impacts to baseflow in 2005 represent approximately 4% of the average annual baseflow at the Tombstone gage. In 2016, Fort Huachuca's maximum impacts are predicted to decrease to 0.6% of the average annual baseflow at the Tombstone gage as a result of proposed mitigation projects (see section 4.8)."

Item 11:

Page 188, Table 13, second row (southwestern willow flycatcher), last column. Revise column to read, "May affect, likely to adversely affect".

Item 12:

Page 193, Section 4.10.1, paragraph 3. Replace the paragraph with the following, "As detailed in Section 5, Fort Huachuca has agreed to implement conservation measures which will offset nearly all direct, indirect, interrelated and interdependent effects associated with the proposed action by the year 2016. The Fort will do this reducing baseflow changes attributable to Fort Huachuca from -0.06 to 0.3 cfs in 2005 to -0.3 to 0.04 cfs in 2016, with the negative numbers indicate a positive impact on the groundwater system from Fort Huachuca's conservation measures. As a result, Fort Huachuca's maximum impacts to baseflow represent approximately 4% of the average annual baseflow at the Tombstone gage in 2005 and are predicted to decrease to 0.6% in 2016. By doing so, there will be very little effect on the Huachuca Water Umbel or its critical habitat associated with Fort Huachuca's groundwater usage."

Item 13:

Page 205, Section 4.10.2, paragraph 4. Replace the paragraph with the following, "As detailed in Section 5, Fort Huachuca has agreed to implement conservation measures which will offset nearly all direct, indirect, interrelated and interdependent effects associated with the proposed action by the year 2016. The Fort will do this reducing baseflow changes attributable to Fort Huachuca from -0.06 to 0.3 cfs in 2005 to -0.3 to 0.04 cfs in 2016, with the negative numbers indicate a positive impact on the groundwater system from Fort Huachuca's conservation measures. As a result, Fort Huachuca's maximum impacts to baseflow represent approximately 4% of the average annual baseflow at the Tombstone gage in 2005 and are predicted to decrease to 0.6% in 2016. By doing so, there will be very little effect on the southwester willow flycatcher or its critical habitat associated with Fort Huachuca's groundwater usage."

Item 14:

Page 206, Section 4.10.2, last paragraph. Replace paragraph with the following, “Although the effects of groundwater pumping in the Sierra Vista Subwatershed on downstream southwestern willow flycatcher habitat are uncertain, the best information available suggests that currently these effects are probably small or negligible. Effects of future groundwater pumping on flycatcher habitat are predicted to be insignificant because base flow from the Sierra Vista Subwatershed into the Winkelman subwatershed, where flycatcher habitat primarily occurs, is very small. Although the effects may be insignificant, they are not discountable. Fort Huachuca will implement significant conservation measures and continue to work with communities and agencies within the Sierra Vista Subwatershed, through the Upper San Pedro Partnership, to mitigate cumulative effects associated with groundwater usage. These measures are expected to help protect base flows and flycatcher habitat in the Sierra Vista Subwatershed.”

Item 15:

Page 208, Section 4.10.2, second paragraph. Replace the paragraph with the following, “Overall, ongoing and future military operations and activities on and near Fort Huachuca may affect, and are likely to adversely affect the southwestern willow flycatcher.”

Item 16:

Page 266, Table of USPP membership and functions. Replace row 1 (executive), column 2 with the following, “Private sector member (chair) plus 5 funding Partners, Garrison Commander, member.”

Replace row 3 (administrative), column 2 with the following, “Funding Partners. Jim Hessil, Fort Huachuca, member.”

Item 17:

Page 267, Table of USPP memberships and functions. Replace row 3 (outreach), column 2 with the following, “Member agency public information officers. Public Affairs Office, Fort Huachuca, member.”

Item 18:

Appendix K, page 5 has been revised and should be replaced with attached pages.