

**FINDING OF NO SIGNIFICANT IMPACT IMPACT (FONSI)  
and  
FINDING OF NO PRACTICABLE ALTERNATIVE (FONPA)  
for  
REPAIR FOUR BRIDGES SYSTEM PROJECT  
AT BEALE AIR FORCE BASE, CALIFORNIA**

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## **Introduction**

This Environmental Assessment (EA) has been prepared to analyze potential impacts from the proposed Repair Four Bridges System Project over Dry Creek and Best Slough on Beale Air Force Base (AFB), California.

Dry Creek, a tributary to the Bear River, flows for approximately 19 miles southwest from its headwaters in Nevada County, California. Dry Creek flows onto Beale AFB in Yuba County, where it becomes a braided channel and develops into sections known as Dry Creek and Best Slough. Dry Creek ends where it joins the Bear River near the city of Rio Oso. Best Slough is confined by a levy along State Route 65 near the community of Plumas Lake, California and is directed south into the Bear River west and downstream of the natural Dry Creek-Bear River Confluence.

This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code (U.S.C.) 4321 et seq.); the Council on Environmental Quality (CEQ) regulations implementing the procedural provisions of NEPA, 40 Code of Federal Regulations (CFR) Parts 1500–1508; and United States Air Force (USAF) policy and procedures (32 CFR Part 989).

## **Purpose and Need**

The purpose of the proposed action is to provide safe access for residents and allow emergency vehicles to pass through the Project Location to the Family Housing area and the Vassar Lake Gate on Beale AFB.

The need for the proposed action is that the four bridges on Galvin Mandery Drive do not currently provide safe access to the Family Housing area and Vassar Lake Gate.

## **Alternatives Considered**

### **Proposed Action**

The Proposed Action would remove and replace all four bridges and improve the roadway alignment to a 35 mph comfort design speed. The new structures would accommodate two 12-foot travel lanes and 4-foot shoulders. The new bridges at Best Slough and Dry Creek Overflow would replace the existing multiple span bridges with two span bridges approximately 140 feet in length. These two bridges would have a center bent in the waterway consisting of two separate 4-foot diameter columns. The existing multiple span

Dry Creek bridge would be replaced with a single span bridge, approximately 100 feet in length, with no columns in the waterway. The existing single span bridge at Best Slough Overflow would be replaced with a single span bridge, approximately 44 feet in length. Best Slough and Best Slough Overflow bridges would be constructed on the same horizontal alignment. The Dry Creek Overflow bridge would be constructed on a new alignment approximately 125-feet south of the existing location. The Dry Creek Bridge would be constructed approximately 30-feet south of the existing location. All structures would be constructed using cast-in-place (reinforced concrete). Additionally, all slopes adjacent to the bridge abutments would be armored by rock slope protection to prevent surface erosion and scour.

The roadway and bridge profile would be raised approximately 6 feet to provide a minimum of one-foot of vertical clearance between the bottoms of the bridges and the water surface during the Q-100 event. Gavin Mandery Drive would be reconstructed along essentially the existing horizontal alignment from Best Slough to 800-feet west of the Best Slough Overflow and from the east end of the Dry Creek Bridge to approximately 400-feet to the east. The roadway east of the Best Slough Bridge would be realigned to the south to improve the horizontal alignment and then conform east of the Dry Creek Bridge. The total length of the proposed project would be approximately 0.5 miles.

The proposed demolition of the realigned bridges (#3113 and #3114) would occur after the proposed new bridges were built. Before demolition or construction of the bridges could occur, the creeks would be dammed and de-watered. If any debris should happen to fall into the channel from the proposed demolition, the debris would be removed and loaded into trucks to be recycled or disposed of off-base. The proposed demolition would utilize concrete cutting and jack hammers to render material small enough load directly into trucks for hauling. Debris would be removed and relevant environmental design criteria within the channel would be finalized before water would be re-introduced into the channel.

### **No Action Alternative**

The Council on Environmental Quality (CEQ) regulations require consideration of the No Action Alternative for all Proposed Actions. The No Action Alternative serves as a baseline against which the impacts of the Proposed Action and other potential alternatives can be compared. The No Action Alternative is evaluated in this report as an alternative considered.

Under the No Action Alternative, the Four Bridges that cross Dry Creek and Best Slough would not be replaced. Winter closures would continue during peak rainfall events that cause the creeks to overtop the bridges. The existing bridges would not meet modern hydro-engineering standards to withstand Q-100 events or meet modern public safety standards; both of which place attached utilities and bridge users at risk. The condition of the bridges would remain in a degraded state and lowered weight capacity would continue with risk failure. Emergency vehicles would continue to have a single longer route across Base and access to portions of the Base south of the proposed project area would be severely limited. Base traffic from military family housing and the Vassar Lake Gate would continue to be impeded by lowered speed limits, single lane traffic, and two signal lights.

Upgrades to the streambed which may improve fish passage at the four bridge locations would not occur. Trees adjacent to the site, some of which are large oaks, would not be removed nor would adjacent riparian vegetation be disturbed.

### **Alternatives Eliminated from Further Analysis**

*Repair Bridges:* Under Alternative 2, bridge repairs would be made to restore their integrity for weight. The bridges were built at a time when roads were narrower and thus, they would not be widened but guard rails would be improved for safety. Traffic would not change due to continued lane restriction to one-way traffic. But higher weight emergency vehicles would regain use of this route. It would not be possible under this alternative for the height of the bridges to be raised above the recurring or Q-100 flood events. Utilities would be placed on overhead lines above flood levels. This alternative would not improve travel flow from military family housing and Vassar Gate to Main Base, conform to modern bridge standards for engineering, hydrology, and public safety. Furthermore, the bridge roadways would remain susceptible to 100-year flood events with increased risk to infrastructure, environmental habitat, and public safety.

*Complete or seasonal closures of Gavin Mandery Drive at Dry Creek/Best Slough:* Complete closure would provide for traffic safety but, would not address traffic flow needs while seasonal closure would address safety concerns during periods at risk from flooding. Bridge failure could occur unless the bridges were removed, but the traffic flow issue would not be resolved. The alternative would not increase the elevation of the bridges or utility lines over the creeks from Q-100 events without a new placement. Closure would increase drive times for base residents and users of the Vassar Lake Gate to access Main Base and flight line areas. The only other bridge over Dry Creek on Camp Beale Highway is also affected by flood events. Without an increase in the elevation of the Four Bridges sections there is an isolation risk for base residents from accessing the flight line, Main Base, Base Clinic, and Perimeter Acquisition Vehicle Entry Phased-Array Weapons System (PAVE PAWS) during floods. The existing bridges are degraded and currently do not allow for heavy equipment use (including fire trucks) and limit other emergency equipment response time. This alternative would not improve travel flow from military family housing and Vassar Gate to Main Base, conform to modern bridge standards for engineering, hydrology, and public safety. Furthermore, the bridge roadways would remain susceptible to 100-year flood events with increased risk to infrastructure, environmental habitat, and public safety.

#### *Improvements to the Camp Beale Highway*

Improvements to the Camp Beale Highway: and its bridge across the main stem of Dry Creek above Beale Lake were considered as an alternative. While this would provide redundant access to military family housing, it would increase drive times for military family housing residents and users of Vassar Lake Gates to Main Base and the flight line if that was the only action taken. Concurrent, but not related to Proposed Action, is an effort to improve anadromous fish passage on Dry Creek by removing fish passage barriers. Beale Lake Dam is planned for removal under that project which would improve the flow capacity under the Dry Creek Bridge on Camp Beale Highway and reduce potential for flood-caused closures. A roundabout on Camp Beale Highway at Warren Shingle Road to improve traffic flow in and out of military

family housing, PAVE PAWS, Base Clinic, and Grass Valley Gate would also be part of this alternative. Those two projects, however, would be insufficient by themselves to improve service time for fire equipment from Beale AFB Fire Station #2 if the Gavin Mandery Drive route over the Four Bridges was not improved. This alternative would not improve travel flow from military family housing and Vassar Gate to Main Base, conform to modern bridge standards for engineering, hydrology, and public safety. Furthermore, the bridge roadways would remain susceptible to 100-year flood events with increased risk to infrastructure, environmental habitat, and public safety.

## **SUMMARY OF ENVIRONMENTAL CONSEQUENCES**

Table FS/FP-1: Comparison of Environmental Consequences provides a brief summary and comparison of potential impacts under each alternative.

**Table 1: Summary of Findings**

<b>Resource Area</b>	<b>Preferred Alternative</b>	<b>No Action Alternative</b>
<b>Noise</b>	Short-term, negligible, during construction only	None – no change
<b>Air Quality and Greenhouse Gasses</b>	Short-term increase during construction and use of new cement. Long-term improvement by removal of traffic lights and increase from 1-way to 2-way traffic	None – no change
<b>Land Use, Agriculture, Recreation, and Aesthetics</b>	<p><b>Land use:</b> overall no change, small shift in road alignment</p> <p><b>Agriculture:</b> No change</p> <p><b>Recreation:</b> Short-term impact to hunting and hiking access during summer construction period. No long-term impacts</p> <p><b>Aesthetics:</b> Medium- to long-term adverse effects from loss of large old oak trees and riparian areas for bridge construction. Long-term gain with mitigation to replant native trees at higher replacement ratio</p>	<p><b>Land Use:</b> None – No change</p> <p><b>Agriculture:</b> None – No change</p> <p><b>Recreation:</b> Possible long-term moderate adverse impact with closures that prevent access</p> <p><b>Aesthetics:</b> Short-term - None. Long-term - failed bridges may adversely affect aesthetics without removal</p>
<b>Geologic, Mineral, and Soil, Resources</b>	<p><b>Soils:</b> Short-term - minor during construction</p> <p><b>Minerals:</b> None – no change</p> <p><b>Geology:</b> Negligible</p> <p><b>Topography:</b> Minor changes at bridge sites and ramps to bridges</p>	None – no change
<b>Water Resources</b>	<p><b>Surface Water:</b> Short-term, minor impacts during construction. Long-term benefit by removal of constrictions</p> <p>Long-term, beneficial</p> <p><b>Groundwater:</b> None - no change</p> <p><b>Wetlands:</b> minor localized impacts from construction, long-term slight improvement from planting mitigations</p> <p><b>Floodplains:</b> Long-term slight improvement/allow free flow of creeks</p>	<p><b>Surface Water:</b> Long-term, minor, adverse</p> <p><b>Groundwater:</b> None – no change</p> <p><b>Wetlands:</b> Long-term, minor, adverse</p> <p><b>Floodplain:</b> Long-term, minor, adverse</p>

Resource Area	Preferred Alternative	No Action Alternative
<b>Biological Resources</b>	<p><b>Vegetation:</b> Short-term, minor, adverse. Long-term, beneficial with mitigation</p> <p><b>Wildlife:</b> Short-term, minor, adverse Long-term, beneficial (shrub and tree planting)</p> <p><b>Threatened and Endangered Species:</b> Short-term, minor, adverse effect to listed steelhead and vernal pool crustaceans. Long-term, beneficial for steelhead by improving streambed</p>	<p><b>Vegetation:</b> None – no change</p> <p><b>Wildlife:</b> None – no change</p> <p><b>Threatened and Endangered Species:</b> Long-term, moderate, adverse effect to listed steelhead no effects to vernal pool shrimp</p>
<b>Human Health and Safety</b>	Short-term, minor, adverse during construction (road closure). Long term beneficial	Long-term – moderate, adverse
<b>Utilities and Infrastructure</b>	Longer-term - beneficial	Long-term – moderate, adverse
<b>Transportation and Traffic</b>	Short-term – minor adverse (during construction). Long-term beneficial	Long-term – moderate, adverse
<b>Hazardous Materials and Wastes</b>	Short-term – moderate/disposal of old bridges	None – no change
<b>Cultural Resources</b>	None – no change to known historic resources	None – no change

Source: Draft EA Repair Four Bridges System Project (2020)

## Public Review and Stakeholder Coordination

Beale AFB will notify relevant federal, state, and local agencies about the Proposed Action and Alternatives. The coordination process will provide Beale AFB the opportunity to cooperate with and consider state and local views in implementing the Proposed Action or Alternatives. Coordination letters will be sent to federal, state, and local agencies containing a description of the Proposed Action and Alternatives and provide the means to comment on the Proposed Action and Alternatives. The comment period will last for 30 calendar days. Agency responses have been incorporated into the analysis of potential environmental impacts as part of the development of the EA.

Because the Proposed Action area coincides with wetlands, it is subject to the requirements and objectives of Executive Order (EO) 11990, *Protection of Wetlands*. The USAF will publish a notice in the Appeal-Democrat (a local newspaper) in May 2020 indicating that the Proposed Action will occur in a wetland. The notice will identify the state and federal regulatory agencies with special expertise that will be contacted and solicited public comment on the proposed action and any practicable alternatives.

A Notice of Availability has been published in the Appeal-Democrat with the release of the Draft EA and Finding of No Significant Impact/Finding of No Practical Alternative (FONSI/FONPA). The Notice of Availability initiated the 30-calendar day public review period for the Draft EA and FONSI/FONPA. All public comments received during the public comment period, they will be reviewed and included in an appendix to the Final EA. All substantive comments will be incorporated into the analysis, as appropriate.

## **Finding of No Significant Impact**

After careful review of the EA, which is incorporated by reference, I have concluded that the Proposed Action would not have a significant impact either by itself or cumulatively on the quality of the natural or human environment. Therefore, issuance of a FONSI is warranted, and an Environmental Impact Statement/Environmental Impact Report is not required. This analysis fulfills the requirements of NEPA and implementing regulations promulgated by the Council on Environmental Quality (CEQ). Accordingly, the requirements of the National Environmental Policy Act of 1969 and the CEQ, and CFR Title 32, Part 989, Environmental Impact Assessment Process, have been fulfilled, and an Environmental Impact Statement is not necessary and will not be prepared. This analysis also fulfills the requirements of CEQA and an Environmental Impact Report is not necessary and will not be prepared.

[SIGNATURE]

[Date]

Dee Jay Katzer, Col, USAF

Chief, Civil Engineer Division (ACC/A4C)

## Finding of No Practicable Alternative

EO 11990, *Protection of Wetlands*, (24 May 1977) directs agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. Federal agencies are to avoid new construction in wetlands, unless the agency finds there is no practicable alternative to construction in the wetland and the proposed construction incorporates all possible measures to limit harm associated with development in the wetland. Agencies should use economic and environmental data, agency mission statements, and any other pertinent information when deciding whether or not to build in wetlands. EO 11990 directs each agency to provide for early public review of plans for construction in wetlands. In accordance with EO 11990 and 32 CFR Part 989, a FONPA must accompany the FONSI stating why there are no practicable alternatives to development within or affecting wetland areas.

Similarly, EO 11988, *Floodplain Management* (May 24, 1977), requires Federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. If it is found that there is no practicable alternative, the agency must minimize potential harm to the floodplain and circulate a notice explaining why the action is to be located in the floodplain prior to taking action. Finally, new construction in a floodplain must apply accepted flood proofing and flood protection to include elevating structures above the base flood level rather than filling in land. In accordance with EO 11988, a FONPA must accompany the FONSI stating why there are no practicable alternatives to development within or affecting floodplains.

After careful review of the EA, which is incorporated by reference, I have concluded that due to the location of the Four Bridges System Project being sited within existing floodplain/wetland boundaries, the project cannot avoid directly impacting floodplains and, therefore, there are no practicable alternatives to demolition and disposition activities within floodplains. All practicable measures will be taken to minimize harm to or within the floodplain; in fact, the Proposed Action will result in a net beneficial impact to floodplains. An early public notice of impacts to wetlands was published in the Appeal-Democrat on 6 August 2020.

In consideration of the potential impact of the ongoing COVID-19 pandemic on the usual methods of access to information and ability to communicate, such as the mass closure of local public libraries and challenges with the sufficiency of an increasingly-overburdened internet, the Air Force encouraged members of the public and all interested stakeholders to contact us directly by email or telephone to discuss and resolve issues involving access to the Draft EA and Proposed FONSI/FONPA or the ability to comment. The Air Force received no/[insert number of requests] request(s) for assistance in obtaining/commenting upon the EA/FONSI/FONPA; this/these request(s) were resolved by (providing hard copies or a CD of the draft EA/FONSI to the affected individuals by regular mail... etc....).



**[SIGNATURE]**

**[Date]**

Dee Jay Katzer, Col, USAF

Chief, Civil Engineer Division (ACC/A4C)