



**FEMA**

February 8, 2011

Ray Alley, City Manager  
City of Holbrook  
Post Office Box 970  
Holbrook, Arizona 86025

Dear Mr. Alley:

This letter is in reference to the October 15, 2010, letter and data submission to the Department of Homeland Security's, Federal Emergency Management Agency (FEMA) regarding certification of levees within the City of Holbrook, Navajo County, Arizona, in order to meet the criteria of the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10). The pertinent information regarding the specific levees is listed below.

<b>Identifier:</b>	Holbrook Levee System (Levee ID No. 9-North Levee, Levee ID No. 10-Ponding Area Levee, and the McLaws Levee)
<b>Flooding Source:</b>	Little Colorado River
<b>FIRM panels affected:</b>	Navajo County and Incorporated Areas 04017C3337E, 04017C3339E, 04017C3341E - 04017C3344E, dated September 26, 2008.

In support of the Holbrook Levee System certification the following information was submitted:

1. A report prepared by JE Fuller Hydrology & Geomorphology, Inc. titled, *Levee Certification Report for the Holbrook Levee System prepared for the City of Holbrook, Arizona*, dated December 2009 and Revised October 2010.
2. A report prepared by Kleinfelder West, Inc. titled, *Final Geotechnical Evaluation Report – Certification of the Holbrook Levee System, Holbrook, Arizona*, dated November 2009 and Revised September 2010.
3. A report prepared by Kleinfelder West, Inc. titled, *Final Geotechnical Evaluation Report – Certification of the Holbrook Levee System, Appendices A-J, Holbrook, Arizona* dated November 2009.

The reports by JE Fuller Hydrology & Geomorphology, Inc. were reviewed to verify that the information required under 44 CFR 65.10 was included. The following is a summary of the review:

1. Freeboard: Analysis and Supporting Documentation was reviewed and found to be in compliance with 44 CFR 65.10(b)(1).

2. Closures: Analysis and Supporting Documentation was reviewed and found to be in compliance with 44 CFR 65.10(b)(2).
3. Embankment Protection: Analysis and Supporting Documentation was reviewed and found to be in compliance with 44 CFR 65.10(b)(3).
4. Interior Drainage: Analysis and Supporting Documentation was reviewed and found to be in compliance with 44 CFR 65.10(b)(6).
5. Operation and Maintenance Plans and Criteria: Supporting Documentation was reviewed and found to be in compliance with 44 CFR 65.10(c)(d).

The reports by Kleinfelder West, Inc. were reviewed to verify that the information required under 44 CFR 65.10 was included. The following is a summary of the review:

1. Embankment and Foundation Stability: Analysis and Supporting Documentation was reviewed and found to be in compliance with 44 CFR 65.10(b)(4).
2. Settlement: Analysis and Supporting Documentation was reviewed and found to be in compliance with 44 CFR 65.10(b)(5).

All of the above documentation and data, along with the previously submitted documentation, have been reviewed and based on receipt of this information it appears that the Holbrook Levee System (Levee ID No. 9-North Levee, Levee ID No. 10-Ponding Area Levee, and the McLaws Levee) meets the minimum certification criteria outlined in Title 44, Code of Federal Regulations, Section 65.10. Therefore, we plan to continue to accredit this levee system on the Digital Flood Insurance Rate Map (FIRM) as providing protection from the base flood. The area protected from the base flood by these levees will be mapped as a shaded Zone X and a note will be placed in that area warning of the flood risk that still exists.

Please be advised that levee systems and the estimated level of protection provided by these systems can and do change with time. Future map updates may require the levee system to be certified again at the time of update. Also, design, construction, operation, and/or maintenance documents may be requested at any time. Deviations from the documentation and data submitted to FEMA could result in the levee system no longer being mapped as providing protection from the base flood on future FIRMs. If at any point additional information is provided to FEMA that shows the levee system no longer meets certification criteria as outlined in 44 CFR 65.10, we will contact the levee owner and community about possibly de-accrediting the levees.

Even though we have mapped the referenced levees as providing protection from the 1-percent-annual-chance flood, it is important to note that levees are only designed to provide a specific level of protection. They can be overtopped or fail in larger flood events. Levee systems require regular maintenance and periodic upgrades to retain their level of protection. When levees do fail, they fail catastrophically, and damage may be more significant than if the levee was not there. Therefore, we encourage you to annually discuss the status and condition of your levees with your governing body.

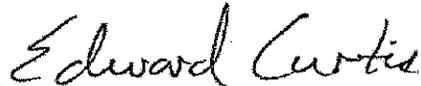
Everyone should understand the risk to life and property that resides behind levees — risk that even the best flood-control system can not completely eliminate. For these reasons, FEMA encourages people to understand their risk. The National Flood Insurance Program (NFIP) was created to reduce flood damages by identifying flood risks, encouraging sound community floodplain management practices, and providing flood insurance to lessen the financial impact of flooding. Through the NFIP, property owners

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in participating communities are able to purchase flood insurance that will insure against flood losses. We hope that you will encourage property owners to purchase flood insurance.

If you have any questions regarding this matter, please contact me by telephone at (510) 627-7207 or by email at [edward.curtis@dhs.gov](mailto:edward.curtis@dhs.gov).

Sincerely,



Edward M. Curtis, Senior Engineer  
Risk Analysis Branch  
Mitigation Division

Copies Furnished:

The Honorable Jeff Hill, Mayor, City of Holbrook  
Cher Reyes, Floodplain Administrator, City of Holbrook  
Caleb Lanting, City Engineer, City of Holbrook  
Trent Larson, Floodplain Manager, Navajo County  
Brian Cosson, AZ DWR, NFIP State Coordinator  
Senator Jon Kyl, State Office  
Senator John McCain, State Office  
Representative Paul Gosar, District Office  
Richard Leifield, USACE, Los Angeles District  
Mark Toy, Colonel, USACE, Los Angeles District