THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

A G E N DA

JULY 13, 2004

Yuba County Government Center
Board of Supervisors' Chambers
915 Eighth Street, Suite 109A
Marysville, California
Unless otherwise indicated.

2:00 P.M. **I** **CALL TO ORDER**

II **ROLL CALL** – Directors Mary Jane Griego and Richard Webb

III **BOARD AND STAFF MEMBERS' REPORTS**

Receive report on responses to comments for the Bear River and Western Pacific Interceptor Canal Levee Project Draft Environmental Impact Report (Ric Reinhardt).

IV **PUBLIC COMMUNICATIONS: Any person may speak about any subject of concern provided it is within the jurisdiction of the Levee Improvement Authority and is not already on today's agenda. The total amount of time allotted for receiving such public communication shall be limited to a total of minutes and each individual or group will be limited to no more than 5 minutes.**

V **ADJOURN**

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In compliance with the American with Disabilities Act, the meeting room is wheelchair accessible and disabled parking is available. If you have a disability and need a disability-related modifications or accommodations to participate in this meeting, please contact the Clerk of the Board's office at (530) 749-7510 or (530) 749-7353 (fax). Requests must be made one full business day before the start of the meeting.

Responses to Comments from Reclamation District 1001 (RD1001)

The following responses were prepared by MBK Engineers to address comments raised in the letter dated June 11, 2004, from Brant Bordsen of Rich, Fuidge, Morris & Iverson, Inc., on behalf of RD 1001.

RD1001-1: The left bank (RD 1001) Bear River levee is several feet higher than the right bank (RD 784) levee throughout most of the project reach, with the exception of a segment of the right bank levee between SR 70 and the WPIC. The levee raise proposed by the Authority would increase the current height of the levee approximately 6 inches to 1 foot. Once completed, the height of the right bank levee would remain lower than the left bank levee throughout most of the project reach.

The "as built" levee conditions are not known, but the design top of levee for this reach of the system is the 1957 design profile plus three feet. The goal of levee improvement project is to provide a level of protection higher than afforded by the 1957 design profile. Portions of the Bear River right bank levee were identified as being deficient of the design standard (i.e., the levee elevations were less than those dictated by the 1957 design profile). The locations of levee elevations less than those dictated by the 1957 design profile are shown in Figures 2.3 and 2.5 of the "Yuba-Feather Supplemental Flood Control Project, Feather and Bear River Levee Improvement Measures, Hydraulic Impact Analysis" (MBK Engineers 2004). The hydraulic analysis and results (locations and magnitudes of the maximum hydraulic impacts of proposed project) referred to in the EIR used the "2004" profiles and concluded that there would not be an adverse impact (see table 3.5, Alt 6).

RD1001-2: The Authority may not construct all flood control elements evaluated in the EIR. Elements that may not be constructed include modifications to segments of the lower Bear River and Feather River levees. These levee improvements would not be constructed if the setback levee project currently being evaluated by the YCWA is approved and constructed. The Authority expects to construct the remaining flood control improvements along the upper Bear River and WPIC.

The Authority is aware of RD 1001's concern regarding cumulative impacts to its flood control facilities. The Authority is not aware of any other proposed related or unrelated projects that would adversely affect either the level of flood protection for RD 1001 or that of other downstream stakeholders. A thorough analysis of the hydraulic effects of proposed flood control projects has been evaluated in the "Yuba-Feather Supplemental Flood Control Project, Feather and Bear River Levee Improvement Measures, Hydraulic Impact Analysis" (MBK Engineers 2004). That analysis is the basis for the conclusion in the EIR that the proposed project would not result in a significant hydraulic impact. Table 3.5 in the report shows the hydraulic modeling results for the 1-in-100 annual exceedence probability level.

Responses to Comments from Sutter County Public Works Agency (SCPW)

The following responses were prepared by MBK Engineers to address comments raised in a letter dated June 11, 2004, from George Musallam of SCPW.

SCPW-1: The potential cumulative environmental impacts and flood control benefits of the proposed project in combination with other local and regional flood control projects are described in Chapter 6, "Other Analyses Required by CEQA." The assessment concluded that peak stage reductions would occur on the Bear River and a peak stage increase would occur on the Feather River near the confluence with the Bear River. The cumulative assessment did not include a quantitative evaluation of the hydraulic effects of a setback levee because of the uncertainty regarding the selection of a setback levee alignment. However, the "Yuba-Feather Supplemental Flood Control Project, Feather and Bear River Levee Improvement Measures, Hydraulic Impact Analysis" (MBK Engineers 2004) includes an assessment of the hydraulic effects of a setback levee. Information contained in the report suggests that a setback levee, in combination with the proposed project and other flood control projects would provide additional flood control benefits. The commenter has been provided a copy of the report.

SCPW-2: Strengthening levees through the construction of seepage cutoff walls or berms would not affect downstream hydraulic profiles. A discussion of the effects of strengthening levees is provided in Chapter 3 of the EIR. The "Yuba-Feather Supplemental Flood Control Project, Feather and Bear River Levee Improvement Measures, Hydraulic Impact Analysis" (MBK Engineers 2004) provides a comparison of the hydraulic effects of additional flood control measures combined with the proposed project. The results of the analysis indicate that the proposed project in combination with other projects would generally benefit (lower) or not affect river stages on the Bear, Feather, or Sacramento Rivers.

The hydraulic effects are just one of many concerns that must be addressed in planning for a potential flood control project. Setback levees were not carried forward in this effort because they are not within the financial means of the implementing agency. Setbacks will be evaluated as part of the YCWA effort under the Yuba-Feather Supplemental Flood Control Project. That project is moving forward on a parallel path, but at a slower pace due to process issues. If the YCWA is successful in building stakeholder support for a setback, can identify funding, and completes CEQA and NEPA compliance in late 2004/early 2005, then the agency will not implement levee improvements for the reach of levee identified for relocation.

SCPW-3: Please see response to comment "SCPW-1." Table 4-6 of the "Yuba-Feather Supplemental Flood Control Project, Feather and Bear River Levee Improvement Measures, Hydraulic Impact Analysis" (MBK Engineers 2004) addresses the stage and level of protection resulting from the project.

Responses to Comments from South Yuba River Citizens League (SYRCL)

The following responses were prepared by MBK Engineers and Kleinfelder, Inc., to address comments raised in a letter dated June 14, 2004, from Janet Cohen of SYRCL (co-signed by Ronald Stork of Friends of the River).

SYRCL-1: Setback levees were not carried forward in this effort because they are not within the financial means of the implementing agency. Setbacks will be evaluated as part of the YCWA effort under the Yuba-Feather Supplemental Flood Control Project. That project is moving forward on a parallel path, but at a slower pace due to process issues. If YCWA is successful in building stakeholder support for a setback, can identify funding, and completes CEQA and NEPA compliance in late 2004/early 2005, then the agency will not implement levee improvements for the reach of levee identified for relocation.

SYRCL-2: The comment references that the Bear River levee was constructed on "highly unstable" soils. Kleinfelder (the geotechnical consultant) is aware of the fact that portions of the Bear River right bank levee alignment were constructed upon river wash sediments deposited during upstream gold recovery operations in the late 1800s and early 1900s. This information is well documented in maps dated 1880 (USACE) and 1909 (USSCS). In addition, in some locations the Kleinfelder borings encountered these materials within the foundation layers beneath the levee embankments. These sediments are generally of low strength, compressible, erodible, and relatively permeable. The Kleinfelder geotechnical analysis included an assessment of the seepage, stability, settlement, and erosion impacts of these materials. Appropriate soil parameters were assigned to these materials. The recommendations contained in the geotechnical report and carried forward to the project design provide mitigation measures where appropriate to restore the levees at their current location to all current levee safety requirements of FEMA and USACE.

Responses to Comments from California Department of Water Resources (DWR1)

The following responses were prepared by Jones & Stokes and HDR Inc., to address comments raised in a letter dated June 14, 2004, from Karen Enstrom of DWR.

DWR1-1: A Wetland Delineation Report has been provided to the commenter.

DWR1-2: The text has been revised as suggested.

DWR1-3: To clarify, the Proposed Project would have greater effects on wetlands and transportation than Alternative 2 in isolation, but the magnitude of all combined environmental effects for either Alternative 2 or the Proposed Project would be similar.

DWR1-4:
- **a)** The text has been revised as suggested.
- **b)** The resource agencies to which compensation measures may be attributed are provided in the detailed discussion in Chapter 4. The table is unchanged in the interest of brevity for the executive summary.
- **c)** Explicit methods are provided in the detailed discussion in Chapter 4. The table is unchanged in the interest of brevity for the executive summary.
- **d)** References to the complete mitigation measures are provided in the detailed discussion in Chapter 4. The table is unchanged in the interest of brevity for the executive summary.
- **e)** As indicated in the detailed discussion in Chapter 4, surveys would be performed in several episodes to minimize impacts. The table is unchanged in the interest of brevity for the executive summary.
- **f)** As indicated in the detailed discussion in Chapter 4, a biologist/environmental monitor would provide construction monitoring to minimize impacts. The table is unchanged in the interest of brevity for the executive summary.
- **g)** Comment noted. Construction stoppage and agency notification is described in the mitigation detailed in Chapter 4. The table is unchanged in the interest of brevity for the executive summary.
- **h)** The executive summary table is intended to provide a summary of impacts and mitigation. A full description of impacts and mitigation is provided in Chapter 4, including prescriptive methods. The table is unchanged in the interest of brevity for the executive summary.
- **i)** Comment noted. Construction stoppage and agency notification is described in the mitigation detailed in Chapter 4. The table is unchanged in the interest of brevity for the executive summary.
- **j)** The text has been revised as suggested.
- **k)** There will be minimal removal of trees/riparian vegetation/habitat, and this removal will not affect the overall visual quality of the area. This impact would be less than significant, and a description of this has been added to text under Impact VIS-3.
- **l)** The text has been revised as suggested.

DWR1-5: The discussion on Page 1-6, "Related Planning Efforts," has been modified to reflect the relationship between the setback levee project and the proposed project.

DWR1-6: The text has been revised as suggested.

DWR1-7: Description of the berm on pages 2-2 and 2-3 has been modified to indicate that the berm would be constructed on the landside.

DWR1-8: Mixing locations are not specifically known at this time and will be identified as part of final design. However, all mixing would occur within the staging areas (see response to comment DWR1-10). Mixing would occur within steel containers. Washing and cleanup practices will be detailed in the SWPPP to avoid impacts to water quality and environmental contamination.

DWR1-9: The text has been revised as suggested.

DWR1-10: A figure is not available at this time to depict the staging areas; however, a narrative description of the three potential staging areas has been provided in the text.

DWR1-11: The text has been revised as suggested.

DWR1-12: Construction on the waterside of the WPIC would occur during the dry season, and no fill would be placed directly into water. However, the fill may be below the OHWM and would therefore result in the fill jurisdictional waters (pending verification).

DWR1-13: The text has been revised as suggested.

DWR1-14: A flattened bench exists along the Bear River levee, generally at about mid-slope between the crown of the levee and the water surface. The riprap would extend from toe of the slope up to the waterside hinge of the bench, but is not proposed for the upper levee slope above the bench.

DWR1-15: Specific details of the type of biotechnical bank stabilization are not presently known; however, the methods may include willow cuttings, wattles, and brush layers and boxes. Additional narrative description has been provided in regard to the location and construction duration of these features.

DWR1-16: Specific details of the instream rock groin will be determined as part of final design. Additional narrative description has been provided in regard to volume, truck trips, rock size, and timing of construction.

DWR-17: As stated on page 2-7, "the pump station has decreased the levee stability because of its proximity to the levee." Relocation of the pump station will allow for greater soil cover and mass, thereby decreasing a potential localized seepage path.

DWR1-18: As stated on page 2-8, the new pump station would be constructed "150 feet north of the existing location." The total volume to be filled is approximately 5,300 cubic yards. The new pump station would have a similar footprint as the old pump station. As the old pump station would be completely dismantled and removed, and the new pump station would be similar in type and capacity, the post-project footprint would be approximately equal.

DWR1-19: The area between the old pump station and the new pump station has been mapped as an Agricultural Canal, which is non-jurisdictional water. Fill activities would occur during the dry season when the canal is dewatered.

DWR1-20: The text has been revised as suggested. Hartweg's Golden Sunburst does not potentially occur within the project area.

DWR1-21: The text has been revised as suggested to reflect that surveys will be conducted during the appropriate blooming period.

DWR1-22: The text has been revised as suggested.

DWR1-23: Comment noted. The text has been revised as suggested.

DWR1-24: Comment noted. The text has been revised as suggested.

DWR1-25: Comment noted and agreed. The discussion on Page 4.1-13, Vegetation and Wetlands, has been modified to describe the terms of collection of fill material.

DWR1-26: This impact is analyzed in Section 5.2, Land Use.

DWR1-27: The wetlands delineation datasheet has been included with the Wetland Delineation Report, provided to the commenter.

DWR1-28: The text has been revised as suggested.

DWR1-29: The text has been revised as suggested.

DWR1-30: The text has been revised as suggested.

DWR1-31: The text has been revised as suggested.

DWR1-32: Comment noted. The text has been revised as suggested. NOAA Fisheries would issue a BO for those anadromous species that may be affected by the project. The DFG would issue findings and a take permit under CESA Section 2081.

DWR1-33: Comment noted. The text has been revised.

Responses to Comments from California Department of Water Resources (DWR2)

The following response was prepared by MBK Engineers to address comments raised in a letter received on June 14, 2004, from Dan Yamanaka of DWR.

DWR2-1: Setback levees were not carried forward in this effort because they are not within the financial means of the implementing agency. Setbacks will be evaluated as part of the YCWA effort under the Yuba-Feather Supplemental Flood Control Project. This project is moving forward on a parallel path, but at a slower pace due to process issues. If the YCWA is successful in building stakeholder support for a setback, can identify funding and completes CEQA and NEPA compliance in late 2004/early 2005, then the agency will not implement levee improvements for the reach of levee identified for relocation.

Responses to Comments from Sacramento Area Flood Control Agency (SAFCA)

The following responses were prepared by MBK Engineers and Jones & Stokes to address comments raised in a letter dated June 14, 2004, from F. I. Hodgkins of SAFCA.

SAFCA-1: The basis for concluding that the proposed project does not have an adverse affect on downstream flooding is supported by the analysis contained in the "Yuba-Feather Supplemental Flood Control Project, Feather and Bear River Levee Improvement Measures, Hydraulic Impact Analysis" (MBK Engineers 2004). The Authority is pursuing operational improvements to Oroville Dam and New Bullards Bar Dam. Although the Authority does not operate or control these facilities, the Authority does advocate implementation of operational improvements. The Authority is very interested in working with SAFCA, DWR, and YCWA to implement these improvements.

SAFCA-2: See response to comment SAFCA-1.

SAFCA-3: Setback levees were not carried forward in this effort because they are not within the financial means of the implementing agency. Setbacks will be evaluated as part of the YCWA effort under the Yuba-Feather Supplemental Flood Control Project. That project is moving forward on a parallel path, but at a slower pace due to process issues. If the YCWA is successful in building stakeholder support for a setback, can identify funding, and completes CEQA and NEPA compliance in late 2004/early 2005, then the agency will not implement levee improvements for the reach of levee identified for relocation.

SAFCA-4: The Authority appreciates SAFCA's willingness to work with the Authority, its member agencies, and the YCWA. These agencies are continuing to cooperate in advancing a comprehensive program for flood control for Yuba County, and look forward to partnering with SAFCA in a broader regional approach for planning and implementation. In regard to specific concerns that the project is segmented, the hydraulic modeling and analysis conducted on behalf of the Authority indicates that the project does in fact have independent utility and demonstrates flood benefits in and of itself. As further demonstrated in the analysis, these benefits can be achieved without significant measurable effects in downstream stage or increase in flood risk to adjacent lands.

Responses to Comments from Gene Anderson (GA)

The following responses were prepared by Kleinfelder, Inc., and Jones & Stokes to address comments raised in a letter dated June 12, 2004, from Gene Anderson.

GA-1: The comment mainly addresses the use of seepage berms for seepage mitigation, and recounts previous experiences within RD 784 with seepage berms that were constructed reportedly in the 1960s. Kleinfelder is knowledgeable of the flood fight measures that were implemented at these berm locations.

The issue of under-seepage within the Sacramento River flood control system has been extensively investigated by the USACE within the past few years. In 2003, the USACE convened a panel of experts (the Levee Seepage Task Force) to review under-seepage conditions within the system and provide recommendations for standard practices to control adverse under-seepage conditions, where encountered.

The Levee Seepage Task Force identified three main features for mitigating adverse seepage conditions. These included cutoff walls, seepage relief (wells or trenches), and seepage berms. Properly designed and constructed, each of these three mitigation features can restore a levee to within the USACE requirements for under-seepage safety. The Task Force designated seepage berms as "most reliable."

With regards to seepage berms, the intent is to provide a drained, weighted soil mass within the most critical area of the landside levee toe. The berms effectively lower vertical exit gradients along the berm width. In some cases, the remaining vertical exit gradient at the toe of the seepage berm still exceeds the maximum allowable criteria. Depending on the severity of the condition, it may be appropriate to construct supplemental relief devices (such as relief wells) at this location.

USACE EM 1110-2-1913, "Design and Construction of Levees," provides guidance for maximum berm widths of 300 to 400 feet. The Levee Seepage Task Force recommended a maximum berm width of 300 feet. Review of design criteria from six other USACE districts with levees along the Mississippi, Missouri, and Ohio Rivers indicate a maximum berm width of 400 feet. It is recognized that elevated seepage gradients may still occur beyond the seepage berm but these areas are generally considered capable of being controlled, if necessary, by flood fighting without immediate threat to levee safety.

GA-2: The Authority is in full agreement that the greatest practicable level of flood protection should be sought. The proposed project addresses immediate needs for at a minimum 100-year protection, while being compatible with and not precluding improvements for 200-year protection.

Responses to Comments from Edith Sandgren (ES)

The following response was prepared by Jones & Stokes to address comments raised in a letter dated May 23, 2004, from Edith Sandgren.

ES-1: Comment noted. The Bear River and WPIC Levee Improvements Project EIR addresses only those actions relative to the improvements of levees along the WPIC, Bear River, and Feather River proposed by the Authority. This EIR does not address the development of the Plumas Lakes Specific Plan area or any other area that has historically been susceptible to flooding; however, flood control improvements are being pursued to address the risk of flooding to current and future development within the project area.

Responses to Comments from Chuck Carver (CC)

The following response was prepared by Jones & Stokes to address comments raised in a letter dated June 1, 2004, from Chuck Carver.

CC-1: Comments noted regarding RD 784. The ability to finance the project will be critical to its implementation, and this is one of the key objectives for the formation of the Authority: To combine the planning and financial resources of RD 784 and Yuba County to provide a coordinated and comprehensive effort for flood control in the southern portion of the county. The administrative support and funding potential represented by the County greatly bolsters RD 784's ability to efficiently and expeditiously plan and implement the project.