I CALL TO ORDER

II ROLL CALL – Directors Rick Brown, Jerry Crippen, Don Graham, Mary Jane Griego, Dan Logue

III 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 15 minutes and each individual or group will be limited to no more than 5 minutes.

IV CONSENT AGENDA: All matters listed under the consent agenda are considered to be routine and can be enacted by one motion.

A. Approve minutes of the regular meeting of April 1, 2008.

V ACTION ITEMS

A. Approve Amendment No. 7 with GEI in the amount of $636,300 for Phase 4 final engineering and permit actions and authorize to execute same.

B. Approve Addendum to the Environmental Impact Report for the Feather River Levee Repair Project.

VI BOARD AND STAFF MEMBERS’ REPORTS

VII CLOSED SESSION


C. Conference with real property negotiators pursuant to Government Code §54956.8 – Property: APN 014-250-027 and 028(Yuba County), and 23-180-007 and 009 (Sutter County)/Naumes, Inc. Negotiating Parties: TRLIA/Bob Morrison/Rich Brown Negotiation: Price and Terms


VIII ADJOURN
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

MINUTES – BOARD OF DIRECTORS

APRIL 1, 2008

A meeting of the Board of Directors of the Three Rivers Levee Improvement Authority was held on the above date, commencing at 3:30 p.m., within the Government Center, Marysville, California, with a quorum being present as follows: Directors Rick Brown, Jerry Crippen, Don L. Graham, Mary Jane Griego, and Dan Logue. Also present were Executive Director Paul Brunner, Counsel Scott Shapiro, and Clerk of the Board of Supervisors/Secretary Donna Stottlemeyer. Chair Griego presided.

PUBLIC COMMUNICATIONS

No one came forward.

CONSENT AGENDA

Minutes: Upon motion of Director Crippen, seconded by Director Logue, and unanimously carried, the Board approved the minutes of the regular meeting of March 18, 2008, as written.

ACTION ITEMS

1) Declaration of Public Necessity: Executive Director Paul Brunner recapped the public necessity and responded to Board inquiries.

Upon motion of Director Crippen, seconded by Director Logue, and unanimously carried, the Board adopted the following resolutions:

- Resolution No. 08-19 which is entitled: "A RESOLUTION OF THE THREE RIVERS LEVEE IMPROVEMENT AUTHORITY DECLARING THE PUBLIC NECESSITY FOR THE TAKING OF CERTAIN PROPERTY FOR REPAIR, CONSTRUCTION, INSTALLATION AND MAINTENANCE OF THE THREE RIVERS LEVEE IMPROVEMENT PROJECT (CODE CIV. PROC. §1245.230)," as it relates to Assessor’s Parcel Number 014-290-033 (Dang); and
• Resolution No. 08-20 which is entitled: "A RESOLUTION OF THE THREE RIVERS LEVEE IMPROVEMENT AUTHORITY DECLARING THE PUBLIC NECESSITY FOR THE TAKING OF CERTAIN PROPERTY FOR REPAIR, CONSTRUCTION, INSTALLATION AND MAINTENANCE OF THE THREE RIVERS LEVEE IMPROVEMENT PROJECT (CODE CIV. PROC. §1245.230)," as it relates to Assessor's Parcel Number 014-290-034 (Uppal).

2) Phase 4 Feather River and Yuba River Levee Project: Executive Director Paul Brunner recapped the revised financing plan for improvement projects and responded to Board inquiries.

Upon motion of Director Logue, seconded by Director Crippen, and unanimously carried, the Board adopted Resolution No. 08-21, which is entitled: "A RESOLUTION OF THE THREE RIVERS LEVEE IMPROVEMENT AUTHORITY AUTHORIZING SPECIFIC ACTIONS IN REGARD TO THE FUNDING PROGRAM FOR PHASE 4 FEATHER RIVER AND YUBA RIVER LEVEE IMPROVEMENTS."

3) Right-of-way Agreement/California Department of Transportation: Following a brief recap from Executive Director Paul Brunner, upon motion of Director Logue, seconded by Director Crippen, and unanimously carried, the Board approved a right-of-way agreement with California Department of Transportation in the amount of $30,600 and authorized the Executive Director to execute same.

4) Fill Acquisition/Platter and JTS: Executive Director Paul Brunner recapped the agreement for soil rights for fill material for the improvement project and responded to Board inquiries.

Upon motion of Director Logue, seconded by Director Crippen, and unanimously carried, the Board adopted Resolution No. 08-22, which is entitled: "A RESOLUTION OF THE THREE RIVERS LEVEE IMPROVEMENT AUTHORITY IN REGARD TO ACQUISITION OF FILL FROM THE PLATTERS."

5) Waiver of Conflict of Interest/Sutter Butte Flood Control Agency: Following a brief recap from Executive Director Paul Brunner, upon motion of Director Logue, seconded by Director Crippen, and unanimously carried, the Board approved a waiver of potential conflict of interest in simultaneous representation by Downey Brand LLP or Three Rivers Levee Improvement Authority and Sutter-Butte Flood Control Agency and authorized the Executive Director to execute same.
Reports were received on the following:

Director Griego:
- Financing plan for funding projects

Executive Director Paul Brunner:
- Schedule of financing, work plan, and timelines for construction of Segment 1, 2, and the setback levee
- Press release on projects
- Letter from County of Yuba to participating landowners of Second Funding Agreement

Director Logue left the meeting at 4:05 p.m. and did not return.

Counsel Scott Shapiro:
- Cap to Cap trip to Washington DC April 4 – 9, 2008 regarding flood control
- Meeting with Naumes regarding acquisition of property on April 11, 2008

At the request of Counsel Scott Shapiro, and upon motion of Director Crippen, seconded by Director Graham, and carried with Director Logue being absent, the matter of out of state travel was added to the agenda as the need to take action arose subsequent to the agenda being posted.

Upon motion of Director Graham, seconded by Director Crippen, and carried with Director Logue being absent, the Board authorized out of state travel to Medford, Oregon on April 11, 2008 for Executive Director Paul Brunner, Counsel Scott Shapiro, GEI Engineer Dan Wanket, Program Manager Ric Reinhardt, and Right of Way Manager Bob Morrison regarding meeting with Naumes on the acquisition of property.

There being no further business to come before the Three Rivers Levee Improvement Authority the meeting was adjourned at 4:15 p.m. by Chair Griego.
TO: Three Rivers Levee Improvement Authority Board  
FROM: Paul Brunner, Executive Director  
Ric Reinhardt, Program Manager  
SUBJECT: Proposed Amendment to Existing GEI Contractual Agreement for TRLIA Phase 4, Feather River, Final Engineering and Permit Actions for the Setback Levee

Recommended Action

Approve Amendment 7 to the existing contract with GEI for the TRLIA Phase 4, Feather River final engineering and permit actions for the setback levee construction and authorize the executive director to sign and execute. The specific contract terms are detailed in the attached document (i.e., the contract document).

Discussion

GEI has been completing design and permitting for the Feather Setback Levee. Due to comments from the Corps of Engineers (Corps), the Department of Water Resources (DWR), and the Central Valley Flood Protection Board (CVFPB) efforts have exceeded what was originally scoped. Additional engineering analysis and revisions as well as environmental documentation have driven design and permitting costs up. Some of this analysis will result in substantial construction savings. Additional efforts have been necessary to convince the Corps and DWR of the correct alignment and reliability of the proposed Setback Levee. Additional environmental efforts have been required to obtain necessary permits from the Corps. The attached document from GEI provides detail on the extra work that has been required, the work needed to complete design and permitting for the Setback Levee, and where efficiencies have offset some of the increased effort cost. To complete the design and permitting efforts, GEI’s contract should be amended to increase their budget by $636,300.

Fiscal Impact

The contract amendment would increase the existing contract by $636,300 for services on a time-and-expenses basis, to a maximum amount not exceeding $13,392,044 without prior authorization by the TRLIA Board. This increase in the design and permitting will be funded from Prop IE Design/Construction contingencies as part of the State/TRLIA funding agreement.
AMENDMENT NO. 7

AGREEMENT FOR PROFESSIONAL SERVICES
FOR
PHASE 4 FEATHER RIVER LEVEE REPAIRS
BETWEEN
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY AND
BOOKMAN-EDMONSTON/GEI CONSULTANTS

THIS AMENDMENT TO AGREEMENT is made effective August 28, 2007, by
and between Three Rivers Levee Improvement Authority ("TRLIA") and Bookman-
Edmonston/GEI Consultants, a division of GEI Consultants, Inc. ("Contractor"), who
agree as follows:

1. Recitals. This Amendment is made with reference to the following background
recitals:

1.1. Effective December 13, 2005, the parties entered into the Agreement for
Professional Services relating to TRLIA's Phase 4 Feather River Levee
project with a contract value of $1,439,400.

1.2. Effective April 25, 2006, the parties entered into Amendment No. 1 to the
Agreement for Professional Services relating to TRLIA's Phase 4 Feather
River Levee Repair design in the amount of $3,082,240 for a total contract
value of $4,521,640.

1.3. Effective June 27, 2006, the parties entered into Amendment No. 2 to the
Agreement for Professional Services relating to TRLIA's Phase 4 Feather
River Levee Repair design in the amount of $32,700 for a total contract value
of $4,554,340.

1.4. Effective October 30, 2006, the parties entered into Amendment No. 3 to the
Agreement for Professional Services relating to TRLIA's Phase 4 Feather
River Levee Repair design in the amount of $262,500 for a total contract value
of $4,816,840.

1.5. Effective January 16, 2007, the parties entered into Amendment No. 4 to the
Agreement for Professional Services relating to TRLIA's Phase 4 Feather
River Levee Repair design in the amount of $115,000 for a total contract value
of $4,931,840.

1.6. Effective April 3, 2007, the parties entered into Amendment No. 5 to the
Agreement for Professional Services relating to TRLIA's Phase 4 Feather
River Setback Levee design in the amount of $5,860,244 for a total contract
value of $10,792,084.

1.7. Effective September 18, 2007, the parties entered into Amendment No. 6 to
the Agreement for Professional Services relating to TRLIA's Phase 4 Feather
River Setback Levee design in the amount of $1,963,660 for a total contract value of $12,755,744.

1.8. The parties now desire to amend the Professional Services Agreement to expand scope of services and base contract fee.

2. **Seventh Amendment to Agreement.** The Professional Services Agreement is hereby amended as follows:

2.1. The scope of services (Attachment A to the Agreement for Professional Services between TRLIA and B-E/GEI, dated December 13, 2005) is amended to expand the scope of work as described by letter dated March 7, 2008 (Exhibit A) to include additional design items related to the Feather River Setback Levee project.

2.2. The payment, budget, and not-to-exceed amounts (Professional Services Agreement Attachment B) are amended by the attached Exhibit B to include the additional amount of $636,300 for a total contract of $13,392,044.

3. **No Effect on Other Provisions.** Except for the amendments in Section 2, the remaining provisions of the Professional Services Agreement shall be unaffected and remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on April 15, 2008.

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY OF YUBA COUNTY

BOOKMAN-EDMONSTON, A DIVISION OF GEI CONSULTANTS, INC.

Paul G. Brunner
Executive Director

Raymond D. Hart
Senior Vice President

ATTEST:
DONNA STOTTLIMEYER
SECRETARY, THREE RIVERS

APPROVED AS TO FORM:
SCOTT L. SHAPIRO
GENERAL COUNSEL, TRLIA
March 7, 2008
050115

Mr. Paul Brunner, Executive Director
Three Rivers Levee Improvement Authority
1114 Yuba Street, Suite 218
Marysville, CA 95901

Re: Agreement for Professional Services on TRLIA’s Phase 4 Feather River Levee Repair Project – Request for Amendment No. 7, Adjustment of Scope and Budget for Segment 2, Feather River Setback Levee Design

Dear Mr. Brunner:

This letter is in follow up to our conversation of last week with Mr. Larry Dacus, TRLIA Design Manager, with the goal of conforming the scope of work and budget for the design of TRLIA’s Phase 4 - Feather River Levee Repair, Segment 2, Feather River Setback Levee (project).

GEI has been performing design services for the project under our April 3, 2007, Amendment No. 5 to the subject Agreement. During these last ten months we have taken the setback levee project from start of design to the issuance of a complete design package to TRLIA and the regulatory agencies with jurisdiction (primarily the Corps of Engineers, the DWR, and the Central Valley Flood Protection Board) for approval. As you know, the project’s design and permitting requirements have evolved as a result of the interactions between TRLIA, agencies, RD 784, affected landowners, and other stakeholders. Evolving/changing design criteria from the Corps and DWR have also affected the project during the course of the design and permitting activities. This evolution has had impacts on the project’s scope and cost. The purpose of this Amendment No. 7 is to conform the scope and budget for the project’s design and permitting services to current project requirements as they are now understood by the TRLIA team.

The basis for the requested adjustments to scope and budget is described in Attachments 1, 2 and 3 below. A narrative of the scope adjustments is provided in Attachment 1, and a breakdown of associated costs is tabulated in Attachment 2. An estimate of the cost to complete the design and permitting services needed to take the project to the start of construction is tabulated in Attachment 3. We estimate a net budget increase of $636,300
is needed to complete the design and permitting work. The requested budget adjustment represents a 10.8 percent increase over the original budget established in Amendment 5. The standard GEI fee schedule, applicable to the project beginning April 3, 2008, is included as Attachment 4.

The scope and budget adjustments herein represent our best estimate at this time. Some uncertainties remain in regard to both permitting and design criteria refinements. These will need to be resolved as the project continues through the approval process. Additional project changes beyond our control could become apparent during this process and necessitate a further scope and budget adjustment.

We recognize TRLIA's difficult funding situation. We are conducting our work as efficiently as possible. Our estimated cost is considered a budget and not a target; we will manage our efforts and strive to keep actual costs under the approved budget.

We are pleased with the opportunity to work with you and your staff during the implementation phase of this vitally important project. Please call me or Dan Wanket if you have any questions.

Sincerely,

GEI Consultants,

Alberto Pujol, P.E., G.E
Project Manager

Attachments 1, 2, 3, and 4

C: Larry Dacus
   Ric Reinhardt
   Ray Hart
   Dan Wanket
March 4, 2008

ATTACHMENT 1
FEATHER RIVER LEVEE REPAIR PROJECT, SEGMENT 2 SETBACK LEVEE
SCOPE CONFORMANCE SUMMARY

1) **Increased Number of Test Borings and Test Pits:** The number of test borings and test pits performed was greater than that assumed in the approved scope of work included in Amendment 5. The increased number of borings and test pits was required for the following reasons:
   - Additional borings were needed to investigate potential setback levee alignment revisions requested by landowners and DWR.
   - Additional borings were needed to address Corps/DWR comments regarding the location and extent of seepage, stability and settlement mitigation measures. Note that initial DWR comments would have required 8,400 lf of additional cutoff wall at a construction cost of about $3.5M. The additional borings and analyses confirmed that cutoff walls were not needed in some of these locations.
   - Additional test pits were needed to investigate more borrow areas than anticipated in the scope of work. More borrow areas had to be investigated because (1) some of the areas originally designated proved to contain unsuitable materials, and (2) other borrow areas will not be available at the beginning of the construction, so a variety of sources will be needed.

The table below compares the Amendment 5 scope of work dated April 2007 versus actual number of explorations:

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<tr>
<th>Exploration</th>
<th>Scope of Work</th>
<th>Actual</th>
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</thead>
<tbody>
<tr>
<td>Conventional Soil Borings</td>
<td>60 to 70</td>
<td>104</td>
</tr>
<tr>
<td>CPT</td>
<td>80 to 90</td>
<td>95</td>
</tr>
<tr>
<td>Sonic Borings</td>
<td>20 to 25</td>
<td>6</td>
</tr>
<tr>
<td>Test Pits</td>
<td>200 to 250</td>
<td>480</td>
</tr>
</tbody>
</table>

2) **Difficulties and Delays in Property Access for Investigations:** Some of the major landowners along the setback levee impeded and delayed TRLIA's access to their land for field investigations. The impediments and delays in property access impacted the design in several ways:
   - Access to properties required near full time attention by GEI's field personnel during a period of about three months to coordinate and meet repeatedly with land owners, stake and re-stake investigation sites in areas that were repeatedly irrigation flooded, etc. The level of field management and coordination efforts was greater than assumed in the original scope, which had been prepared on the basis that BRI would clear access for field work.
   - The impediments to field work resulted in several driller and excavator mobilizations and demobilizations, which in turn increased the costs for drilling and backhoe subcontractors, and increased the field time for GEI staff.
• The original budget assumed that a near-complete draft of the Geotechnical Data Report would be issued with the 60% design, followed by an addendum with supplemental information from remaining explorations with the Issued-for-Approval (IFA) design. Due to the delay in property access, the draft Geotechnical Data Report had to be published prior to completion of a substantial amount of the explorations. The amount of information gathered after submittal of the initial draft required a re-issue of the complete report with the IFA design. Thus, the Geotechnical Data Report had to be issued twice.
• The delay in property access for investigations required a significant amount of re-work in the geotechnical analyses. In addition, an interim submittal of the results of the geotechnical analyses had to be prepared in late November 2007 that was not included in the original scope of work.

3) **Liquefaction Analysis:** Comments received from DWR on the 60% design required conducting a liquefaction analysis for the setback levee. Since current design criteria do not require earthquake analysis, a liquefaction analysis was not included in the original scope of work. DWR has recently stated that a liquefaction analysis should be conducted in order to evaluate levee seismic vulnerability.

4) **Changes in Design Criteria:** Comments received from DWR and the Corps have required various adjustments to the project design criteria. Such adjustments include but are not limited to:

- Limiting the exit seepage gradient at the landside toe to 0.4 instead of 0.5 for the design flood profile (this criteria was later eliminated).
- Limiting the exit seepage gradient at the landside toe to 0.5 with the water surface at the top of the levee (Corps comment on the 60% design package).
- Imposing a minimum required safety factor of 1.2 for the levee landside slope with water at the top of the levee (Corps comment on the IFA design package).
- Requiring verification of seepage gradients and stability safety factors for the 1957 water surface profile, which does not consider construction of the setback levee (Corps comment on the IFA design package).

The evolving design criteria have required a significant amount of re-work and additional geotechnical analyses not originally contemplated in the scope of work.

5) **Pump Station No. 3 Economic Evaluation / Removal of Gravity Drain:** The initial design for Pump Station No. 3 as presented in the 60% design submittal included a gravity drain requested by RD 784. Corps reviewers requested that the gravity drain be removed from the design, and DWR reviewers requested that TRLIA conduct an economic evaluation of a gravity drain versus increased pumping. GEI conducted the economic evaluation, and the gravity drain was subsequently removed from the design, resulting in a construction cost saving of nearly $1 million. The economic evaluation was not included in the original scope of work.
6) **Pump Station No. 3 Design Modifications:** In addition to removal of the gravity drain described in Item #5 above, Pump Station No. 3 design modifications included the following:

- Because the gravity drain was eliminated from the Pump Station No. 3 design, a fifth smaller pump was added at the request of RD 784 for pumping non-storm interior drainage water.
- Due to recent theft and vandalism at other RD 784 pump stations, RD 784 requested that the Pump Station No. 3 design include a locked security building to house the pump station controls.

7) **Expanded Topographic Survey:** The boundary for the project topographic survey was based on the design team’s understanding of the project limits in early 2007. Field investigations revealed that material in some of the identified borrow areas do not meet or only marginally meet material specifications. Additional borrow sites were identified east of Feather River Blvd (Eastern Borrow Area) that were found to generally meet specifications. Supplemental topographic mapping of this borrow area was required. This survey was received too late to incorporate into the IFA design. The impacted drawings will need to be revised to incorporate this new topography.

8) **Late Challenges and Changes to Levee Alignment:** Early in the detailed design the selected setback levee alignment was refined based on input from landowners and project personnel. These refinements included adjustments to minimize impacts to the southern residential parcels, cultural site CA-YUB-5, Anderson, T. Rice, and Danna and Danna. The detailed design scope was based on the alignment being firmed up early in the design process. However, TRLIA had to continue evaluating alternative levee alignments late during detailed design based on additional landowner's and regulator input. Impacts to the design budget included:

- Additional borings (see Item #1 above).
- Preparation of two technical memorandums (i.e. “Segment 2, Feather River Setback Levee Alignment” white paper, and “Technical Memorandum - Segment 2 Feather River Setback Levee Alignment, Rice-Naumes Reach”).
- Attendance at meetings with landowners, and preparation of graphics for landowner and Reclamation Board meetings.
- The second T. Rice levee alignment modification was made in December 2007. This late alignment shift changed the setback levee stationing and required modification to about 60 drawings.

9) **Geomorphologic Modeling:** Geomorphic modeling beyond the original design scope was required. The scope of work for GEI’s geomorphology subconsultant PWA was increased based on the following:

- While preparing the “Segment 2, Feather River Setback Levee Alignment” white paper, TRLIA requested that GEI compile old maps showing the historic Feather River channel alignment. GEI in turn tasked PWA with conducting research for maps showing the historical Feather River channel, and these maps were incorporated into the white paper (see Item #8 above).
- PWA’s original scope of work included only a preliminary assessment of the erosion site downstream of Star Bend (just downstream of the Feather River setback levee south tie-in). The information developed during the preliminary assessment was not sufficient to provide usable recommendations. PWA’s scope was subsequently increased to expand their 2-D modeling and provide a more detailed evaluation of the erosion site. The additional modeling and subsequent evaluation resulted in PWA’s recommendation that the site should be monitored, but that repairs are not warranted at this time.

10) **Environmental Coordination and Permitting:** Environmental coordination and permitting requirements have been and continue to be significantly greater than originally anticipated. These impacts include:

- Increased coordination and document preparation for the Corps 404 application due to the “Rappanos Decision.”
- ESA coordination was greater that assumed due to USFWS requirements for VELB investigations and coordination with Yuba County.
- Section 106 coordination for site CA-YUB-5 is much greater than assumed in the scope-of-work.
- The effort required to prepare the Reclamation Board permit application was greater than anticipated due to Rec Board requests for supporting information far in excess of information requests for previous applications.
- A CEQA addendum requiring significant coordination with outside agencies has been prepared to address changes including JTS and Uppal borrow areas, and re-construction of the Bogue Loop towers.
- NEPA compliance has been significantly more complicated than anticipated based on the previous TRLIA NEPA documents. The original EA required significant re-writing based on comments and meetings with Corps staff. Corps staff is now requiring an Environmental Impact Statement (EIS), see item 11 below.

11) **Preparation of Environmental Impact Statement (EIS):** The Corps has recently determined that an EIS is required for NEPA compliance, and at the direction of TRLIA the GEI team is preparing the draft EIS and planning the public scoping meeting. The Corps has requested that TRLIA provide the names of three firms that are qualified to prepare the EIS, including EDAW. Indications are that the Corps will select EDAW to continue preparing the EIS, and therefore the GEI contract amendment will need to incorporate this work. The EIS scope of work will include conducting a public scoping meeting; preparation of Administrative Draft, Draft, and Final EIS’s; responses to agency and public comments; preparation of draft Record of Decision; and preparation of Federal Register Notices.

12) **Increased Number of Design Drawings:** A total of 243 design drawings had to be prepared, greater than the 192 drawings assumed in the scope of work. The primary areas of change that resulted in an increased number of drawings are as follows:
• A greater number of drawings than originally anticipated was required for the Pump Station No. 3 design. A total of 48 drawings were included in the Issued for Approval design, 23 more than the 25 drawings assumed in the original scope of work. The cost of this drawing increase is partially covered by the Pump Station No. 3 design changes discussed above in Item #6.

• As a result of Corps and DWR review comments, the design of the north and south tie-ins had to be revised and became more complex than anticipated when the scope of work was developed. Based on experience with the Bear River Setback Levee, it had been assumed that 4 drawings would be sufficient to detail the tie-ins. The Issued-for-Approval design included 15 drawings for the tie-ins, 11 more than originally assumed.

• The significance of impacts to internal drainage was not fully understood prior to initiating detailed design. Due to the relatively large drainage area and flows cut off by the setback levee, a large ditch with multiple bridge crossings was required along the full length of the setback levee. Bridges of various sizes had to be provided to meet RD 784 access needs. The design of these drainage features required 9 drawings. The original scope of work assumed only 4 drawings would be required for the drainage facilities.

• Based on a preliminary hydraulic assessment, the preliminary design envisioned that only a portion (less than half) of the existing levee would need to be removed. Hydraulic evaluations conducted during detailed design determined that over 80% of the existing levee would need to be removed. In addition, it appears that all or nearly all of the entire existing levee will need to be removed to backfill borrow areas. The increased length of levee to be removed resulted in an increase from 8 to 18 design drawings required to show the levee removal.

13) **Extended Schedule for Design Management, Coordination and Controls:** The contracted scope of work assumed completion of the design and start of construction in mid March 2008. The complications and delays in permitting (Corps and Central Valley Flood Protection Board) and funding (affecting primarily land acquisition and consequently site access) are extending the schedule of the design and pre-construction phase from March to potentially August 2008. This delay will entail about five months of additional activities pertaining to TRLIA support, engineering management, scheduling, cost engineering, coordination with the construction contractor, and interfacing with the Corps of Engineers, Central Valley Flood Protection Board, and DWR.

14) **Phase 2 Environmental Site Assessment:** The contracted scope of work assumed that TRLIA would perform a Phase 1 Environmental Site Assessment, and that any resulting recommendations for further evaluations and any cleanup measures would be implemented as part of the construction activities. This approach was the same as that successfully adopted for the Bear River Setback Levee. However, for the Feather River setback levee the Corps is requiring that prior to starting construction TRLIA perform further evaluations in the form of a Phase 2 Environmental Site Assessment.
This Phase 2 Environmental Site Assessment was not part of the original scope of work.

15) **Reduction in Design of Environmental Enhancement Measures:** The requirements for environmental enhancement measures have been substantially reduced from the original scope of work. The reduced scope of work is summarized as follows:

- **Giant Garter Snake (GGS) Mitigation** – The original scope of work included detailed design of GGS mitigation habitat in a potential borrow area / detention basin east of Feather River Blvd. During detailed design it was determined that a detention basin was not needed, and the identified site had only marginally suitable soil for levee construction. Therefore the site was not developed and TRLIA plans to purchase offsite GGS mitigation credits.

- **Conceptual Design of Ecosystem Restoration** – The original scope of work included preparation of a Restoration Plan, and support to TRLIA with restoration contractor bid solicitation. Subsequently TRLIA has engaged River Partners directly in restoration planning, and therefore the scope of work has reduced to engineering, permitting and restoration development support to TRLIA and River Partners.

16) **Efficiencies in Preparation of Design Drawings and Specifications:** Experience with the Bear River setback levee has resulted in efficiencies in the preparation of drawings and specifications for the Feather River setback levee. These efficiencies translate into lower than budgeted engineering hours required on average to complete each drawing and specification.
### Feather River Levee Repair Project, Segment 2 Setback Levee
#### Scope and Budget Conformance Summary
Revised 3/4/08

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<th>Task</th>
<th>Estimated Cost</th>
<th>Comments/Assumptions</th>
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<td>Increased Number of Test Borings and Test Pits</td>
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<td>- GEI labor based on estimated level of effort</td>
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<td>- Subcontractor costs based on driller unit costs per hole and backhoe operator cost per day</td>
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<td>Difficulties and Delays in Property Access for Investigations</td>
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<td></td>
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<td>- Based on estimated level of effort</td>
</tr>
<tr>
<td>6</td>
<td>Pump Station No. 3 Design Modifications</td>
<td>GEL 5025 - Design/Drawings</td>
<td>20 180 3,600 MHM 28,750 32,350</td>
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<td></td>
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<td>- Costs have mostly been expended</td>
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<td></td>
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<td>- Based on estimate provided by MHM and estimated GEI labor level of effort</td>
</tr>
<tr>
<td>7</td>
<td>Expanded Topographic Survey of Platter Properties</td>
<td>GEL 5013 - Investigations</td>
<td>40 120 4,800 MHH 15,698 15,698</td>
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<td>- Costs have mostly been expended</td>
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<td></td>
<td>- Based on estimate provided by MHH and on GEI estimated level of effort</td>
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<tr>
<td>8</td>
<td>Late Challenges and Changes to Levee Alignment</td>
<td>GEL 5050 - PM</td>
<td>160 170 27,200 3,000</td>
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<tr>
<td></td>
<td></td>
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<td>- Costs have been expended</td>
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<td>- Based on estimated level of effort</td>
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<td>9</td>
<td>Geomorphic Modeling</td>
<td>GEL 5023 - Geomorphic Modeling</td>
<td>40 180 7,200 PWA 49,000 56,200</td>
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<td>- Costs have mostly been expended</td>
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<td>- Based on estimate provided by PWA, and estimated GEI labor level of effort</td>
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<td>10</td>
<td>Environmental Coordination and Permitting</td>
<td>GEL 5040 - Permitting</td>
<td>120 180 21,600 EDAW 227,000 248,600</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Costs have been expended</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Based on estimate provided by EDAW and GEI labor level of effort</td>
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<td>11</td>
<td>Preparation of Environmental Impact Statement (EIS)</td>
<td>GEL 5040 - Permitting</td>
<td>120 180 21,600 EDAW 158,309 179,909</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Costs are projected and have not been expended</td>
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<td></td>
<td></td>
<td></td>
<td>- Based on estimate provided by EDAW and GEI labor level of effort</td>
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<tr>
<td>12</td>
<td>Increased Number of Design Drawings</td>
<td>GEL 5025 - Design/Drawings</td>
<td>1750 120 210,000</td>
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<td></td>
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<td></td>
<td>- Costs have been expended</td>
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<td></td>
<td></td>
<td>- Based on estimated level of effort</td>
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<tr>
<td>13</td>
<td>Extended Schedule for Design Management, Coordination and Controls</td>
<td>GEL 5050 - Project Management</td>
<td>460 180 82,800</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Costs are projected and have not been expended</td>
</tr>
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<td></td>
<td></td>
<td>- Based on estimated level of effort</td>
</tr>
<tr>
<td>14</td>
<td>Phase 2 Site Assessment</td>
<td>GEL 5015 - Phase 1 ESA</td>
<td>360 130 46,800 3,200 Backhoe, Lab 25,000 75,000</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Costs have not been expended</td>
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<td></td>
<td></td>
<td>- Based on estimated level of effort</td>
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<tr>
<td>15</td>
<td>Design of Environmental Enhancement Measures</td>
<td>GEL 5024 - Design of Environmental Enhancement Measures</td>
<td>0</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Eliminated GGS habitat design and 75% of restoration planning budget</td>
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<tr>
<td>16</td>
<td>Efficiencies in Preparation of Design Drawings and Specifications</td>
<td>Miscellaneous</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Efficiencies obtained from commonalities with BRSL design</td>
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</tbody>
</table>

**Estimated Total - Segment 2 Setback Levee:** $636,262
Attachment 3
Feather River Levee Repair Project, Segment 2 Setback Levee
Estimated Cost to Complete Design and Permitting - Based on Actual GEI Costs as of 2/15/08 plus Estimated Level of Effort
Revised 3/4/08

<table>
<thead>
<tr>
<th>Work Item</th>
<th>Estimated Cost to Complete Project (2/15/08 to 8/1/08)</th>
<th>Comments/Assumptions</th>
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<tbody>
<tr>
<td></td>
<td>GEI Costs (2/15/08 to 8/1/08)</td>
<td>GEI Subcontractors (1/15/08 to 8/1/08)</td>
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<tr>
<td></td>
<td>Hours</td>
<td>Rate</td>
</tr>
<tr>
<td>Finalize Drawings:</td>
<td>808</td>
<td>120</td>
</tr>
<tr>
<td>Issue for Construction</td>
<td>11/15/08 to 8/1/08</td>
<td>9,600</td>
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<tr>
<td>Setback Area Drainage</td>
<td>80</td>
<td>120</td>
</tr>
<tr>
<td>Cutoff Wall Modifications</td>
<td>40</td>
<td>120</td>
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<tr>
<td>Pump Station No. 3 Mud Mat</td>
<td>40</td>
<td>120</td>
</tr>
<tr>
<td>Platter Borrow Area - Merge Topo</td>
<td>40</td>
<td>120</td>
</tr>
<tr>
<td>Platter Borrow Area - Post Grading</td>
<td>40</td>
<td>120</td>
</tr>
<tr>
<td>Ella Basin - Topo</td>
<td>40</td>
<td>120</td>
</tr>
<tr>
<td>Ella Basin - Post Grading</td>
<td>40</td>
<td>120</td>
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<tr>
<td>Complete Geotechnical Analysis</td>
<td>692</td>
<td>120</td>
</tr>
<tr>
<td>Perform Additional Investigations</td>
<td>32</td>
<td>140</td>
</tr>
<tr>
<td>Prepare Geotechnical Data Report Addendum</td>
<td>160</td>
<td>120</td>
</tr>
<tr>
<td>Prepare Design Report Addendum</td>
<td>40</td>
<td>160</td>
</tr>
<tr>
<td>Issue Specification for Construction</td>
<td>40</td>
<td>180</td>
</tr>
<tr>
<td>Project Cost Estimates / Schedules</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Support Borrow Material Negotiation</td>
<td>60</td>
<td>180</td>
</tr>
<tr>
<td>Support Contracting / Pre-Construction</td>
<td>60</td>
<td>180</td>
</tr>
<tr>
<td>Support Utility Relocations</td>
<td>60</td>
<td>160</td>
</tr>
<tr>
<td>Support ROW Acquisition</td>
<td>50</td>
<td>180</td>
</tr>
<tr>
<td>Permitting - EA and Other</td>
<td>40</td>
<td>180</td>
</tr>
<tr>
<td>Permitting - EIS</td>
<td>120</td>
<td>180</td>
</tr>
<tr>
<td>Support Restoration/Mitigation/Farming</td>
<td>80</td>
<td>160</td>
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<tr>
<td>Restoration Opportunities Memo</td>
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<td>180</td>
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<tr>
<td>Phase 2 Site Assessment</td>
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<td>Project Management</td>
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<tr>
<td>FEMA Certification</td>
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<td>166</td>
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<tr>
<td>Estimated Cost to Complete Design and Permitting</td>
<td>571,240</td>
<td>32,200</td>
</tr>
</tbody>
</table>

Setback Levee Budget Conformance:

Total Setback Levee Design Budget (Amendment 5) = $5,860,244
Total Invoiced to TRILIA (as of 1/26/08) = $5,379,216 (per Invoice GEI Invoice No. 704025 dated 2/6/08)
Budget Expended 1/26/08 - 2/15/08 = $97,250
Remaining Budget as of 2/15/08 = $383,778
Estimated Cost to Complete Project 2/15/08 to 8/1/08 = $1,020,040 (from table above)
Estimated Required Budget Augmentation = $636,262
**FEE SCHEDULE**

<table>
<thead>
<tr>
<th>Personnel Category</th>
<th>Hourly Billing Rate $ per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Professional – Grade 1</td>
<td>$ 86</td>
</tr>
<tr>
<td>Staff Professional – Grade 2</td>
<td>$ 96</td>
</tr>
<tr>
<td>Project Professional – Grade 3</td>
<td>$ 106</td>
</tr>
<tr>
<td>Project Professional – Grade 4</td>
<td>$ 118</td>
</tr>
<tr>
<td>Senior Professional – Grade 5</td>
<td>$ 140</td>
</tr>
<tr>
<td>Senior Professional – Grade 6</td>
<td>$ 160</td>
</tr>
<tr>
<td>Senior Professional – Grade 7</td>
<td>$ 189</td>
</tr>
<tr>
<td>Senior Consultant – Grade 8</td>
<td>$ 212</td>
</tr>
<tr>
<td>Senior Consultant – Grade 9</td>
<td>$ 261</td>
</tr>
<tr>
<td>Senior Principal</td>
<td>$ 315</td>
</tr>
<tr>
<td>Senior CADD Drafter and Designer</td>
<td>$ 106</td>
</tr>
<tr>
<td>CADD Drafter / Designer and Senior Technician</td>
<td>$ 96</td>
</tr>
<tr>
<td>Technician, Word Processor, Administrative Staff</td>
<td>$ 78</td>
</tr>
<tr>
<td>Office Aide</td>
<td>$ 62</td>
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</tbody>
</table>

These rates are billed for both regular and overtime hours in all categories. Rates will increase up to 5% annually, at GEI’s option, for all contracts that extend beyond twelve (12) months after the date of the contract.

**OTHER PROJECT COSTS**

**Subconsultants, Subcontractors and Other Project Expenses** - All costs for subconsultants, subcontractors and other project expenses will be billed at cost plus a 15% service charge. Examples of such expenses ordinarily charged to projects are subcontractors; subconsultants; chemical laboratory charges; rented or leased field and laboratory equipment; outside printing and reproduction; communications and mailing charges; reproduction expenses; shipping costs for samples and equipment; disposal of samples; rental vehicles; fares for travel on public carriers; special fees for insurance certificates, permits, licenses, etc.; fees for restoration of paving or land due to field exploration, etc.; state sales and use taxes and state taxes on GEI fees.

**Billing Rates for CADD and Specialized Technical Computer Programs** – Computer usage for CADD and specialized technical programs will be billed at a flat rate of $1.00 per hour in addition to the labor required to operate the computer.

**Field and Laboratory Equipment Billing Rates** – GEI-owned field and laboratory equipment such as pumps, sampling equipment, monitoring instrumentation, field density equipment, portable gas chromatographs, etc. will be billed at a daily, weekly, or monthly rate, as needed for the project. Expendable supplies are billed at a unit rate.

**Transportation and Subsistence** - Automobile expenses for GEI or employee owned cars will be charged at the rate per mile set by the Internal Revenue Service for tax purposes plus tolls and parking charges. When required for a project, four-wheel drive vehicles owned by GEI or the employees will be billed at a daily rate appropriate for those vehicles. Per diem living costs for personnel on assignment away from their home office will be negotiated for each project.

**PAYMENT TERMS**

Invoices will be submitted monthly or upon completion of a specified scope of service, as described in the accompanying contract (proposal, project, or agreement document that is signed and dated by GEI and CLIENT).

Payment is due upon receipt of the invoice. Interest will accrue at the rate of 1% of the invoice amount per month, for amounts that remain unpaid more than 30 days after the invoice date. All payments will be made by either check or electronic transfer to the address specified by GEI and will include reference to GEI’s invoice number.
April 15, 2008

TO: Three Rivers Levee Improvement Authority Board
FROM: Paul Brunner, Executive Director
Anja Kelsey, Environmental Manager

SUBJECT: Feather River Levee Repair Project (FRLRP) California Environmental Quality Act (CEQA) Addendum #1

Recommended Action: Board Approval of the Feather River Levee Repair Project CEQA Addendum #1

Background: CEQA requires a detailed level of analysis for all projects having the ability to affect a variety of human interest factors. This analysis was conducted and concluded in the form of an Environmental Impact Report (EIR) for the FRLRP; approved by the TRLIA Board on February 6, 2007. The FRLRP project area was defined in detail in the EIR and included, at the time, all anticipated borrow sites, haul routes, area impacts, and other foreseeable project activities. Project components that were not addressed or listed in detail in the EIR do require additional analysis under CEQA. One method for addressing this analysis is for the project proponent to do an EIR addendum.

Discussion: As a result of the Feather River Levee Repair Project (FRLRP), Segment 2 Setback construction, various areas of potential borrow sites were analyzed in the FRLRP EIR. Based on information available at the time the EIR was prepared, a potential borrow area east of the setback levee was identified and evaluated. Since certification of the EIR, geotechnical investigations completed in the southern portion of the borrow area evaluated in the EIR have shown that the soil in this area does not meet agency criteria for levee construction. This area is no longer being considered as a potential borrow site. Also, as a result of funding delays and significant land owner negotiation delays, one of another main borrow sources for the project, the Naumes borrow area, could become unavailable for borrow activities associated with the project for most of this year. Therefore, alternate sources of borrow material are being proposed by TRLIA staff that were not originally analyzed in the 2006 FRLRP EIR. The potential borrow areas are located east of Feather River Boulevard, and south of Country Club Road. They consist of two parcels, belonging to the Uppal Family (approximately 20 acres) and the Platter Family (approximately 150 acres) and must undergo a CEQA review process prior to being fully accessible as a TRLIA borrow source.

The Feather Setback project will also require the relocation of a Pacific Gas & Electric (PG&E) 115-kilovolt (kV) transmission line called the Bogue Loop which crosses the levee setback area on four towers. The steel structures of the towers will be replaced so that their integrity will be
maintained during times of flood water inundation, similar to other steel towers located on the water side of the existing Feather River levee supported by elevated steel pile foundations. This action requires CEQA evaluation that was not undertaken during TRLIA’s EIR process and its analysis is therefore included in this addendum. This component of the project, although not directly TRLIA’s responsibility, can not commence until the CEQA process has been complied with.

Since certification of the EIR it has also been determined that public access to the Star Bend Boat Ramp will need to be restricted for approximately 30 days during construction rather than the 2-3 days. The anticipated level of construction activity needed for the southern levee tie-in work (segments 1 and 2) has caused this modification. This increase in construction activity is based on comments received from the Corp of Engineers and DWR since certification of the EIR.

A pedestrian reconnaissance survey of the study area was conducted by EDAW to identify the habitat, vegetation, and potential constraints of the Platter borrow site in December 2007. This survey, including those surveys performed by JTS communities for the Platter property’s future use, yielded no relevant CEQA resource issues. Although the initial survey yielded very little in terms of likely biological or other impacts, it does change the description of the project area. The Uppal Borrow site does not have any sensitive environmental resources. The new borrow areas will now be part of the project description as described in this addendum. The PG&E Bogue loop construction work is within the existing project area and was already surveyed.

The addendum conclusions are that the above actions:

- Would not result in any new significant environmental effects,
- Would not substantially increase the severity of previously identified effects,
- Would not result in mitigation measures of alternatives previously found to be infeasible becoming feasible, and
- Would not result in availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the previous document that would substantially reduce one or more significant effects on the environment.

These conclusions confirm that this addendum #1 to the FRLRP EIR is the appropriate document to record and evaluate the minor project modifications described in the document.

There are no public review requirements for an EIR addendum: upon submittal to the State Clearing House and the Office of Planning and Research, a 45 day statutory period of protest and/or challenge exists, however this does not prevent TRLIA from initiating construction on these affected borrow sites. The PG&E Bogue loop work is anticipated to begin late this spring and extend into late summer after the CEQA process has been completed.

**Fiscal Impact:** The construction work that is analyzed in this addendum is included in the pending Prop 1E funding agreement. The construction work will not be commenced until the funding agreement is executed.