



THREE RIVERS LEVEE IMPROVEMENT AUTHORITY AGENDA

APRIL 5, 2005

**Yuba County Government Center
Board of Supervisors' Chambers
915 Eighth Street, Suite 109A
Marysville, California**

Unless otherwise indicated.

3:30 P.M.

I **CALL TO ORDER**

II **ROLL CALL** – Directors Rick Brown, Mary Jane Griego, Dan Logue, Richard Webb

III **BOARD AND STAFF MEMBERS' REPORTS**

IV **ACTION ITEMS**

A. **Minutes**: Approve minutes of the special meeting of March 15, 2005.

B. **Invoice Payment**: Authorize Auditor-Controller to pay invoices in the total amount of \$693,950.54 for Phase II and III Levee Improvement services from Bookman-Edmonston for \$95,548.96, EPS for \$39,506.50, HDR for \$476,454.77, and MBK for \$82,440.31.

C. **MBK Engineers**: Approve contract amendment in the amount of \$108,200 with MBK Engineers for project management services, mapping support, hydraulic modeling, and erosion studies for project levee work with the Yuba Basin area and authorize Chairman to execute same.

V **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.

VI **ADJOURN**

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

MINUTES – BOARD OF DIRECTORS

MARCH 15, 2005 – SPECIAL MEETING

A meeting of the Board of Directors of the Three Rivers Levee Improvement Authority was held on the above date, commencing at 3:03 p.m., within the Government Center, Marysville, California, with a quorum being present as follows: Directors Rick Brown, Mary Jane Griego, and Dan Logue. Director Richard Webb was absent. Also present were Executive Director Kent McClain, County Counsel Daniel Montgomery, and Clerk of the Board of Supervisors/Secretary Donna Stottlemeyer. Vice-chairman Griego resided.

ACTION ITEMS

A. Minutes: Upon motion of Director Logue, seconded by Director Brown, and carried, with Director Webb being absent, the Board approved the minutes of the regular meeting of March 8, 2005 as written.

B. Bear River/Western Pacific Interceptor Canal Levee Improvement Projects: Following presentation by Assistant County Administrator Randy Margo and Jones and Stokes Associate Chris Elliott, upon motion of Director Logue, seconded by Director Brown, and carried, with Director Webb being absent, the Board adopted Resolution No. 05-01, which is entitled: "RESOLUTION TO ADOPT THE BEAR RIVER AND WESTERN PACIFIC INTERCEPTOR CANAL LEVEE IMPROVEMENTS PROJECTS." ADOPT RESOLUTION NO. 05-01

C. Bookman-Edmonston/GEI Consultants: Following presentation by Assistant County Administrator Randy Margo, upon motion of Director Logue, seconded by Director Brown, and carried, with Director Webb being absent, the Board approved Amendment No. 1 to Agreement with Bookman-Edmonston/GEI Consultants for Bear River Levee Set Back Design in the amount of \$221,160 and authorized the Chairman to execute same. APPROVE AMNDMNT.

D. HDR Engineering, Inc.: Assistant County Administrator Randy Margo recapped the proposed agreement as it relates to project analysis.

Chairman Webb joined the meeting at 3:10 p.m.

Mr. Ric Reinhart, MBK Engineers, briefly recapped his comments regarding the draft report for the Lower Feather River Floodplain Mapping Study and responded to Board inquiries.

Upon motion of Director Logue, seconded by Director Griego, and unanimously carried, the Board approved the Third Amendment to Agreement with HDR Engineering, Inc. for levee investigation and remedial design for the Upper Bear River, Western Pacific Interceptor Canal, and Yuba River in an amount of \$541,372.57 and authorized the Chairman to execute same.

APPROVE
3RD AMND.

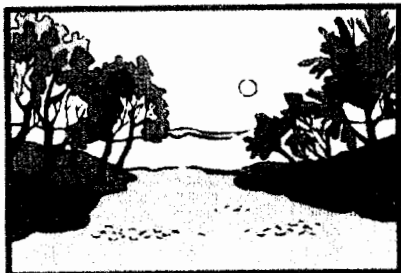
ADJOURNMENT

There being no further business to come before the Three Rivers Levee Improvement Authority the meeting was adjourned at 3:25 p.m. by Chairman Webb.

Chairman

ATTEST: DONNA STOTTLEMEYER
CLERK OF THE BOARD OF SUPERVISORS
AND SECRETARY OF THE PUBLIC AUTHORITY

Approved: _____



THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

Government Center
915 Eighth Street, Suite 115
Marysville, CA 95901-5273

Telephone: (530) 749-7575 Fax: (530) 749-7312

April 5, 2005

TO: Three Rivers Levee Improvement Authority
FROM: Randy Margo, Deputy Executive Director *Randy Margo*
SUBJECT: Payment of Invoices for Phase II and Phase III Levee Improvements

Recommended Action

Authorize the Yuba County Auditor-Controller to pay the following invoices for Phase II and Phase III levee improvement services totaling \$693,950.54 from the 805 Trust Fund.

Reason for Recommended Action

The invoices constitute work performed by consulting firms pertaining to Phase II and Phase III levee improvements for engineering, design, project management, hydraulics, environmental and tax consulting services.

Background

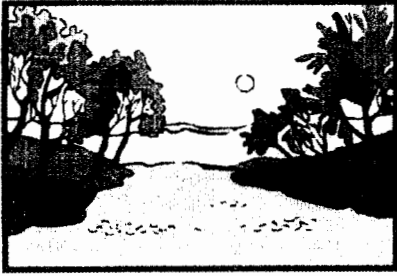
The attached invoices pertain to work performed by the following firms as follows:

FIRMS	SERVICES	AMOUNT
Bookman-Edmonston	Setback Levee Engineering	\$95,548.96
EPS	Analyzing project finances	\$40,661.50
HDR	Engineering for Phase II	\$476,454.77
MBK	Project Mgt. & Hydraulics	\$82,440.31
TOTAL		\$693,950.54

Reimbursement for these expenditures will be sought through the State Department of Water Resources grants recently approved for Phase II and Phase III projects and bond proceeds.

Fiscal Impact

Payment of these invoices will reduce the available cash in the 805 Trust fund to \$4,152,833.14.



THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

Government Center
915 Eighth Street, Suite 115
Marysville, CA 95901-5273

Telephone: (530) 749-7575 Fax: (530) 749-7312

April 5, 2005

TO: Three Rivers Levee Improvement Authority
FROM: Randy Margo, Deputy Executive Director
SUBJECT: Amendment to Contract with MBK Engineers

Recommended Action

Approve contract amendment with MBK Engineers to increase cost ceiling by \$108,200 to provide project management services, mapping support, hydraulic modeling and erosion studies for project levee work within the Yuba Basin area.

Reason for Recommended Action

MBK Engineers has been providing project management support, mapping support, hydraulic modeling and erosion studies for TRLIA since the inception of the levee work in 2003. This contract amendment allows continuation of services through August 1, 2005.

Background

MBK Engineers has provided a range of project management and technical support for TRLIA's levee improvements since 2003. The scope of this amended contract includes an erosion analysis of the Feather and Yuba River levees and to create floodplain maps to assist in identifying the upstream limit of work on the Yuba River levee. Also included in this scope is preparation of the Time-Inundation maps requested by the State Reclamation Board.

The contract service period will be extended upon approval of this amendment until August 1, 2005. At that time, the contract will be reevaluated in terms of the need for additional services.

Fiscal Impact

The total cost for this contract amendment is \$108,200, thereby, increasing the cost ceiling for this contract from \$329,950 to \$438,150. Funding for this contract amendment will be reimbursed from State Water Bond Act 2000 grant funds, otherwise known as Proposition 13.

JOSEPH D. COUNTRYMAN, P.E.
GILBERT COSIO, JR., P.E.
MARC VAN CAMP, P.E.

ANGUS NORMAN MURRAY
1913 - 1985

CONSULTANTS:
JOSEPH I. BURNS, P.E.
DONALD E. KIENLEN, P.E.

March 17, 2005

Randy Margo
Three Rivers Levee Improvement Authority
915 8th Street, Ste. 115
Marysville, CA 95901

Subject: Agreement for Professional Services 8th Amendment to Scope of Work for the Phase 4 Problem Identification Study and Project Management Support for the Three Rivers Levee Improvement Authority

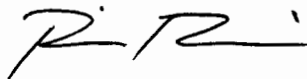
Dear Mr. Margo:

Enclosed is a scope of work for MBK Engineers to provide a range of project management and technical support for your effort to improve the flood protection for Reclamation District No. 784. This scope covers support for the Phase 4 Problem Identification Study and continued Project Management support. MBK will perform an erosion analysis of the Feather and Yuba River levees and create floodplain maps to assist in identifying the upstream limit of work on the Yuba River levee. Also included in this scope is preparation of the Time-Inundation maps that the Reclamation Board requested.

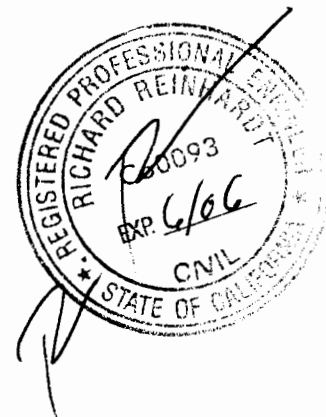
As of February 28, 2005, we had \$5,962.12 remaining in our contract. The scope of work and level of effort for the Phase 4 Problem Identification Erosion and Yuba River Floodplain Mapping Studies and Time-Inundation Mapping and continued Project Management and Mapping support are included in Attachment A. The total cost for this amendment is \$108,200. This would increase the cost ceiling for this contract from \$329,950 to \$438,150. The contract service period would be extended until August 1, 2005.

Please call if you have any questions.

Sincerely,
MBK ENGINEERS



Ric Reinhardt, PE



RR/pp
5141/RANDY MARGO 03.17.05

Agreement for Professional Services – Standard Terms and Conditions

This Agreement for professional services is entered into between MBK Engineers, hereinafter referred to as the CONSULTANT and Three Rivers Levee Improvement Authority, hereinafter referred to as the CLIENT.

For and in consideration of the mutual covenants and conditions herein, CLIENT and CONSULTANT do hereby agree as follows:

1. Covenant for services

The CLIENT does hereby retain the CONSULTANT to perform the professional services identified herein. The CONSULTANT does hereby agree to perform such services for the CLIENT upon the terms and conditions set for in this AGREEMENT.

2. Scope of service

The CONSULTANT will provide all goods and services as set forth in the Scope of Work, attached hereto and incorporated by reference in this AGREEMENT as Attachment A.

3. Standard of care

CONSULTANT will strive to perform services under this AGREEMENT in a manner consistent with that level of care and skill ordinarily exercised by members of the same profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this AGREEMENT, or in any report, opinion, document, or otherwise.

CLIENT understands that the standard of care CONSULTANT is required to uphold can only be determined after the fact, through appropriate research by qualified experts. CLIENT agrees that, should it for any reason become necessary to identify the standard of care applicable to CONSULTANT's services, CLIENT shall cause CLIENT's expert to use those research methods agreed to by the American Society of Civil Engineers, American Institute of Architects, National Society of Professional Engineers, Interprofessional Council on Environmental Design, American Association of Engineering Societies, and other respected national, regional, and international organizations, as related in the document, *Recommended Practices for Design Professionals Engaged as Experts in the Resolution of Construction Industry Disputes*.

4. Definitions

When used in this AGREEMENT, the words and phrases listed below are defined as indicated, unless noted otherwise elsewhere in this AGREEMENT:

Agreement

This contract, including all appendixes, addenda, and any documents incorporated by reference.

Any Claim

This term, when used in a provision indicating CLIENT's obligation to waive claims against CONSULTANT or to hold CONSULTANT harmless from any claim arising from certain specified events, means "any claim in contract, tort, or statute alleging negligence, errors, omissions, strict liability, statutory liability, breach of contract, breach of warranty, negligent misrepresentation, or other acts giving rise to liability."

Certify, Certification

Wherever these or derivative words are used in the AGREEMENT, or in any document developed or arising out of this AGREEMENT or services furnished by CONSULTANT thereunder, they shall mean CONSULTANT's furnishing an opinion of conditions based upon testing, analyses, or observation CONSULTANT has performed. CONSULTANT's certification of a condition's existence does not guarantee such condition exists, nor does it relieve other party of responsibilities or obligations such party has accepted by contract or custom.

Claims

See "Any Claim," above.

Client

Three Rivers Levee Improvement Authority.

Consultant

The firm of MBK Engineers, subsidiaries and affiliates, and all officers and employees thereof.

Substantial Completion

Substantial completion of CONSULTANT's services shall have been accomplished when CONSULTANT submits a final report and recommendations or final plans and specifications. If the AGREEMENT calling for these services is terminated before the services are completed, substantial completion will have occurred on the date termination goes into effect.

5. Billing and payment

CLIENT recognizes that timely payment of CONSULTANT's invoices is a material part of the consideration for which CONSULTANT requires to perform the services indicated in this AGREEMENT.

CLIENT shall pay CONSULTANT for services rendered in U.S. funds drawn upon U.S. banks, in accordance with the rates and charges set forth herein. Routine invoices will be submitted by CONSULTANT from time to time, but no more frequently than every two (2) weeks, and shall be due and payable within thirty (30) calendar days of invoice date. If CLIENT objects to any portion of an invoice, CLIENT shall so notify CONSULTANT within fourteen (14) calendar days of the invoice date, identify the cause of the objection, and pay when due that portion of the invoice not in dispute.

CLIENT shall pay an additional charge of one-and-one-half (1.5) percent (or the maximum percentage allowed by law, whichever is lower) of the invoiced amount per month for any payment received by CONSULTANT more than thirty (30) calendar days from the date of the invoice, excepting any portion of the invoiced amount in dispute and resolved in favor of CLIENT. Payment thereafter shall first be applied to accrued interest and then to the principal unpaid amount.

Payment of invoices is in no case subject to unilateral discounting or set-offs by CLIENT.

Application of the percentage rate indicated above as a consequence of CLIENT's late payments does not constitute any willingness on CONSULTANT's part to finance CLIENT's operation, and no such willingness should be inferred. If CLIENT fails to pay undisputed invoiced amounts within thirty (30) calendar days of the date of the invoice, as set forth hereinabove, CONSULTANT may at any time thereafter, without waiving any other claim against CLIENT and without thereby incurring any liability to CLIENT, suspend this AGREEMENT (as provided for in Section 9, SUSPENSION) or terminate this AGREEMENT (as provided for in Section 10, TERMINATION).

Accordingly, the CONSULTANT will provide all goods and services as set forth in the Scope of Work for the price described in the CONSULTANT's Cost Proposal, attached hereto and incorporated by reference in this AGREEMENT as Attachment B.

6. Limitation of liability

CLIENT and CONSULTANT agree to allocate certain of the risks so that, to the fullest extent permitted by law, CONSULTANT's total aggregate liability to CLIENT is limited to \$50,000 or to the proceeds available from CONSULTANT's required insurance coverages, whichever is higher, for any and all injuries, damages, claims, losses, expenses, or claim

expenses (including attorneys' and expert witness' fees) arising out of this AGREEMENT from any cause or causes. Such causes include, but are not limited to, CONSULTANT's negligence, errors, omissions, strict liability, statutory liability, breach of contract, breach of warranty, negligent misrepresentation, or other acts giving rise to liability based upon contract, tort, or statute.

7. Insurance

CONSULTANT maintains workers' compensation and employer's liability insurance of a form and in the amount required by California state law; general liability and automotive liability insurance with limits of one million dollars (\$1,000,000), and professional liability insurance with a limit of one million dollars (\$1,000,000).

CLIENT recognizes that the insurance market can be erratic and that no CONSULTANT can guarantee an ability to maintain the coverages indicated above. CONSULTANT warrants that CONSULTANT will endeavor to do so, within a context of prudent business practices, and will notify CLIENT of any change in coverage no later than ten (10) calendar days after CONSULTANT becomes aware of such change. If any of CONSULTANT's coverages is withdrawn, or if CONSULTANT decides to forgo coverage because a replacement policy will afford inadequate protection and/or will require a significantly increased premium when compared to prior coverage, CONSULTANT and CLIENT shall confer about alternatives available, if any, and shall bargain in good faith in an attempt to achieve conditions acceptable to both.

8. Indemnification

CONSULTANT agrees to hold harmless and indemnify CLIENT from and against liability to the extent caused by CONSULTANT's negligent performance of the services.

CONSULTANT's opinion of certain conditions that CONSULTANT has evaluated on CLIENT's behalf may diminish the value of property. In order to establish an atmosphere where CONSULTANT feels free to report CONSULTANT's opinions, recommendations for remedial measures, et al., without fear of reprisal, CLIENT shall, to the fullest extent permitted by law, waive any claim against CONSULTANT, and indemnify, defend, and hold CONSULTANT harmless from any claim or liability for injury or loss arising from the theory that CONSULTANT's findings, conclusions, opinions, recommendations, plans, or specifications diminished the value of a property. CLIENT shall also compensate CONSULTANT for any time spent or expenses incurred by CONSULTANT in defense of any such claim. Such compensation shall be based

upon CONSULTANT's prevailing fee schedule and expense reimbursement policy.

CONSULTANT shall indicate to CLIENT the information needed for rendering services hereunder, and CLIENT shall provide to CONSULTANT as much of such information that is available to CLIENT. CLIENT shall inform CONSULTANT of reports or other materials prepared by others that relate to CONSULTANT's portion of the work, and CLIENT shall furnish these to CONSULTANT or otherwise help CONSULTANT gain access to them. CLIENT recognizes that CONSULTANT is unable to ensure the sufficiency of such information, either because doing so is impossible, or because of errors or omissions others may have committed when assembling the information. Accordingly, CLIENT shall, to the fullest extent permitted by law, waive any claim against CONSULTANT, and indemnify, defend, and hold CONSULTANT harmless from any claim or liability for injury or loss arising from alleged errors, omissions, or inaccuracies in documents or other information provided to CONSULTANT by CLIENT. CLIENT also shall compensate CONSULTANT for any time spent or expenses incurred by CONSULTANT in defense of any such claim. Such compensation shall be based upon CONSULTANT's prevailing fee schedule.

9. Suspension

If payment of CONSULTANT's invoices is not maintained on a thirty- (30-) calendar-day-current basis by CLIENT, CONSULTANT may, upon fourteen (14) calendar days' written notice to CLIENT, suspend further services until payment is restored to a current basis, or CONSULTANT may terminate this AGREEMENT. CLIENT may suspend CONSULTANT's services upon fourteen (14) calendar days' written notice. Any suspension by CLIENT exceeding forty-five (45) calendar days shall, at CONSULTANT's option, make this AGREEMENT subject to renegotiation or termination. Any suspension shall extend the performance schedule by an amount of time satisfactory to both CLIENT and CONSULTANT, and CLIENT shall compensate CONSULTANT for services performed and expenses incurred prior to the suspension date, plus suspension charges. Suspension charges shall include, but shall not be limited to, fees for service and expenses for putting analyses and documents in order, rescheduling and reassigning personnel and/or equipment, and issuing necessary or customary notices to appropriate government agencies. Compensation to CONSULTANT shall be based upon CONSULTANT's prevailing fee schedule.

10. Termination

CLIENT or CONSULTANT may terminate this AGREEMENT without penalty. The party initiating

termination shall so notify the other party, and termination shall become effective fourteen (14) calendar days after receipt of the termination notice. Irrespective of which party effects termination or the cause thereof, CLIENT shall within thirty (30) calendar days of termination pay CONSULTANT's fees for services rendered and costs incurred, in accordance with CONSULTANT's prevailing fee schedule. These fees and costs shall include those outstanding at the time of termination.

11. Ownership of instruments of professional service

Plans, specifications, reports, software, calculations, field data, field notes, estimates, and similar documents and materials prepared by or for CONSULTANT as instruments of professional service are CONSULTANT's property. CONSULTANT shall retain these instruments of professional service for five (5) years following submission of final project deliverables, during which period CONSULTANT's instruments of professional service will be made available for CLIENT's review at any reasonable time.

CLIENT agrees that instruments of professional service provided by CONSULTANT to CLIENT may not under any circumstances be altered by any party except CONSULTANT. CLIENT warrants that CONSULTANT's instruments of service will be used only and exactly as submitted by CONSULTANT.

CLIENT understands that CONSULTANT may become liable to third-parties that ill-advisedly rely on CONSULTANT's instruments of professional service under the mistaken assumption that their third-party needs are identical to CLIENT's or that, although their needs differ from CLIENT's, CONSULTANT would nonetheless have performed the identical services to satisfy those different needs. To help prevent problems from arising in this respect, CLIENT shall inform CONSULTANT of any specific third-parties or types of third-parties that CLIENT believes may ask to rely on CONSULTANT's instruments of professional service, and CLIENT shall not under any circumstance permit such reliance except with the express consent of CONSULTANT. CONSULTANT may withhold its consent if the third-party does not agree, in writing, (1) to be bound by the terms of this AGREEMENT, including without limitation, any provision limiting CONSULTANT's liability hereunder, (2) to use such information only for the purposes contemplated by CONSULTANT in performing its services, and (3) to be bound by the qualifications and limitations expressed in the opinions, conclusions, certificate, or report involved. CLIENT's payment of CONSULTANT's invoices, as provided for herein, shall not be made contingent on CONSULTANT's agreeing to permit third-party reliance against CONSULTANT's preferences, and CONSULTANT

shall be compensated by CLIENT for whatever additional service and/or risk stems from third-party reliance, if the third-party does not provide compensation per terms and conditions herein. In addition, CLIENT shall, to the fullest extent permitted by law, waive any claim against CONSULTANT, and indemnify, defend, and hold CONSULTANT harmless from any claim or liability for injury to loss allegedly arising from any third-party's reliance on CONSULTANT's instruments of services without CONSULTANT's specific authorization to do so. CLIENT also shall compensate CONSULTANT for any time spent or expenses incurred by CONSULTANT in defense of any such claim. Such compensation shall be based upon CONSULTANT's prevailing fee schedule.

12. Dispute resolution

All claims, disputes, or controversies arising out of, or in relation to the interpretation, application, enforcement, or implementation of this AGREEMENT or provision of the services indicated herein shall be decided through mediation. The parties further agree that OWNER will require, as a condition for participation in the project and their agreement to perform labor or services, that all contractors, all subcontractors at all tiers, and all suppliers whose portion of the work amounts to five thousand dollars

(\$5,000) or more, and their insurers and sureties, shall agree to this procedure.

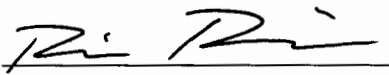
Should legal action be brought by one party against the other, the nonprevailing party shall reimburse the prevailing party for the prevailing party's documented legal costs, in addition to whatever other judgments or settlement sums may be due. Such legal costs shall include, but not be limited to, reasonable attorney's fees, court costs, forensic consultant and expert witness fees, and other documented expenses, as well as the value of time spent by the prevailing party and those in that party's employ to research the issues in question, discuss matters with attorneys and others, prepare for depositions, respond to interrogatories, and so on. Insofar as CONSULTANT is concerned, the value of time spent and expenses incurred shall be computed based upon CONSULTANT's prevailing fee schedule.

13. Governing law

Unless otherwise provided, the substantive law of the state of California will govern the validity of this AGREEMENT, its interpretation and performance, and remedies for contract breach or any other claims related to this AGREEMENT.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed by their undersigned officials as duly authorized.

MBK Engineers

By: 
Name and title: Ric Reinhardt, Principal
Date: March 15, 2005
Federal ID number: 94-2282149

Three Rivers Levee Improvement Authority.

By: _____
Name and title: _____
Date: _____

*Approved on behalf of
William A. Whitmore
County Counsel*

Task 1 – Project Management Activities

The following is a general level of estimated involvement. March and April involvement is expected to be significantly higher than May and June.

1. Management meetings (once per month) – Prepare agenda, attend meeting, prepare meeting minutes. **Effort - 5 hrs/month.**
2. Technical team meetings – Attend weekly team meetings. **Effort – 10-15 hrs/month.**
3. Review of design team technical products and coordination on technical issues. **Effort – 10-20 hrs/month.**
4. Coordination with Reclamation Board – Meet with staff and coordination on permit issues. **Effort – 0-4 hrs/month.**
5. Coordination with the Corps on FEMA certification issues. **Effort – 5-15 hrs/month.**
6. Coordination with DWR on Design Grant, Implementation Request, and Phase 4 activities. **Effort – 0-6 hrs/month.**
7. General Coordination – Coordination on project issues with TRLIA staff, coordination on Bear River Orchard, floodplain mapping outreach, land use adjacent to levees, public meetings, prepare PowerPoint presentations, coordination and meetings with stakeholders, and JPA Board meetings. **Effort – 10-30 hrs/month.**

Task 1		
Principal Engineer	40-95 hrs @ \$150/h	\$14,250-\$6,000
Expenses		\$ 500
Total		\$ 14,750-\$6,500 per month

Project management support is expected to extend through the completion of the Phase 2 Bid Package. Cost for this task by month is estimated at; March = \$14,750, April \$14,750, May \$10,000, June \$6,000. Total cost = \$45,500

Task 2 – Mapping Support

1. Prepare and update map that shows all of the projects and features in RD 784 and for the Marysville Ring Levee. **Effort – 5 hrs/month.**
2. Prepare maps as needed for presentations and meetings. **Effort – 6 hrs/month.**

Task 2		
Principal Engineer	1 hr @ \$150/h	\$150
Junior Engineer	10 hrs @ \$70/hr	\$ 700
Expenses		\$ 450
Total		\$1,300/month

Project management support is expected to extend through the completion of the Phase 2 Bid Package. This is currently estimated to be April 30, 2005. Total cost for this task is \$1,300*4 months = \$5,200.

Task 3 – Development of Time-Inundation Maps

This effort consists of using a two-dimensional hydraulic floodplain model to analyze the resulting development of 1/100 AEP floodplains from each of four levee break locations: Yuba River, Feather River, Bear River, and Western Pacific Interceptor Canal into RD 784. The final product will be maps indicating the temporal development of the floodplains from each of these break locations.

Task 3			
Execute Floodplain Model	Supervisor Engineer	31 hrs @ \$130	\$4,030
Develop Floodplain Maps	Supervisor Engineer	10 hrs @ \$130	\$1,300
	Junior Engineer	40 hrs @ \$70/hr	\$2,800
Misc./Coordination			\$1,000
Expenses			\$370
TOTAL			\$9,500

Task 4 – Phase 4 Problem Identification Study

Task 4.1 Yuba River Floodplain Modeling and Mapping

This effort consists of modeling and mapping the 1/100 AEP floodplains that will develop from three breach locations along the Yuba River: above Simpson Lane, near River Mile 3.5, and at the Patrol Road in the Goldfields. The flow within the floodplain will be modeled with a two-dimensional floodplain modeling software package. For this purpose, the FLO-2D developed by USACE for the Lower Feather River Floodplain Mapping Study will be used. This model will be reviewed, refined, and calibrated as necessary prior to using it in the development of the floodplain maps. Maps will be created based on the resulting 1/100 AEP maximum floodplain elevations from the floodplain model.

Task 4.1			Cost
Floodplain Model			
Review	Supervisor Engineer	25 hrs @ \$130	\$3,250
Refine	Supervisor Engineer	55 hrs @ \$130	\$7,150
Calibrate	Supervisor Engineer	70 hrs @ \$130	\$9,100
Execute	Supervisor Engineer	31 hrs @ \$130	\$4,030
Technical Review	Principal	4 hrs @ \$150	\$600
Develop Floodplain Maps	Junior Engineer	40 hrs @ \$70	\$2,800
Team Meetings/Coordination	Principal Engineer	25 hrs @ \$150	\$3,750
Expenses			\$320
TOTAL			\$31,000

Task 4.2 Erosion Study

This effort consists of a site inspection; use of the existing Corps' and MBK's 2-D hydraulic models; review of site soil conditions; coordination with MHM on surveying to establish cross section locations review of PL84-99 erosion repairs; preparation of a report; and coordination with the Corps, DWR and local agencies.

Task 4.2			Cost
2-D Hydraulic Model			
Execute	Supervisor Engineer	32 hrs @ \$135	\$4,320
Site Visit	Principal	8 hrs @ \$150	\$1,200
Prepare Report	Principal	32 hrs @ \$150	\$4,800
	Supervisor Engineer	24 hrs @ \$130	\$3,120
Team Meetings/Coordination	Principal Engineer	20 hrs @ \$150	\$3,000
Expenses			\$560
TOTAL			\$17,000

Total Cost for Tasks 1-4 = \$108,200.

SCHEDULE OF FEES

1. Standard Fees:

	<u>Per Hour</u>
Principal	\$140-175
Supervising Engineer	115-140
Senior Engineer	105-130
Engineer	90-120
Hydrologist	80-115
Assistant Engineer	75-95
Junior Engineer	70-85
GIS Specialist	70-115
Technician/Drafter	70-90
Engineering Aide	40-60
3-Man Survey Crew	180
2-Man Survey Crew	150
GPS Equipment	40

2. Time spent in appearances at courts or quasi-judicial State or Federal boards and commissions is billed at \$350 per hour for principals and supervising engineers, \$200 per hour for registered engineer staff, and \$150 per hour for other staff.
3. Automobile mileage is billed at .40¢ per mile away from Sacramento or other such headquarters as may be established.
4. All other direct non-salary expense, including transportation and subsistence, long-distance telephone charges, commercial printing, reproduction costs, and similar out-of-pocket expenses are billed at actual cost plus a service charge of 10%. Professional services provided by others billed through MBK at cost plus a service charge of 15%.
5. Billings will be made monthly and payment will be due within 30 days. Accounts not paid within 90 days of presentation will bear interest at the rate of 1½% per month or fraction thereof from the billing date unless other arrangements are made in advance.
6. If accounts are not paid within 90 days of presentation, the firm may retain an attorney to obtain payment. In the event that it does so and payment of all or part of the account is thereafter obtained, reasonable attorney's fees and other costs incurred to obtain such payment shall also be paid, or if payment is obtained by Judgment, shall be awarded as part of the Judgment.