No other business shall be conducted at this meeting. The public shall have an opportunity to address the Authority only with respect to items set forth in this agenda. Each individual or group will be limited to no more than five minutes. Prior to this time, speakers must fill out a “Request to Speak” card and submit it to the Clerk of the Board of Supervisors.

I CALL TO ORDER

II ROLL CALL – Directors Rick Brown, Jerry Crippen, Don Graham, Mary Jane Griego, John Nicoletti

III ACTION ITEMS

   [✓] Adopt resolution initiating proceedings, providing intention to levy assessments, preliminarily approving Engineer's Report, and providing for notice of hearing for the Three Rivers Levee Improvement Authority Levee and Flood Control Facilities Assessment District for Fiscal Year 2009-2010. (Continued from March 3, 2009) [Power Point Presentation from 3/3/09]

IV ADJOURN

The complete agenda, including backup material, is available at the Yuba County Government Center, 915 8th Street, Suite 109, the County Library at 303 Second Street, Marysville, and www.trlia.org. Any disclosable public record related to an open session item on the agenda and distributed to all or a majority of the Board of Directors less than 72 hours prior to the meeting are available for public inspection at Suite 109 during normal business hours.

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 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.
March 3, 2009

TO: Three Rivers Levee Improvement Authority Board
FROM: Paul Brunner, Executive Director
SUBJECT: Proposed Creation of Special Benefit Assessment District

Recommendation:
That the Board of Directors adopt the resolution entitled:

Resolution No: _____

**A RESOLUTION OF THE BOARD OF DIRECTORS OF**
**THE THREE RIVERS LEVEE IMPROVEMENT AUTHORITY**
**INITIATING PROCEEDINGS, PROVIDING INTENTION TO LEVY ASSESSMENTS, PRELIMINARILY**
**APPROVING ENGINEER’S REPORT, AND PROVIDING FOR NOTICE OF HEARING FOR THE**
**THREE RIVERS LEVEE IMPROVEMENT AUTHORITY LEVEE AND FLOOD CONTROL FACILITIES**
**ASSESSMENT DISTRICT FOR FISCAL YEAR 2009-10**

Background:
When Three Rivers Levee Improvement Authority (TRLIA) was created by Reclamation District (RD) 784 and Yuba County as a Joint Powers Authority, it was empowered to accomplish a wide variety of tasks, including the ability to finance flood control improvements and maintenance; create community facility districts, assessment districts, or other financing districts; construct/repair/acquire property; and jointly maintain significant levee improvements with RD 784.

On July 11, 2006, the TRLIA Board began the process of forming an assessment district to provide funding to maintain the improved RD 784 levees to a much higher standard. This higher standard involves transforming the maintenance program from rural to urban practices, as is required by numerous funding agreements that TRLIA has signed with the State and the Development Community. It is also a critical component of the FEMA levee accreditation process.

On September 26, 2006, SCI Consulting Group (SCI) was selected to perform the tasks needed to determine if an assessment district was viable and, if so, prepare the Engineer’s Report for the TRLIA Board to consider forming the district and levying a special benefit assessment.
Working with a wide spectrum of stakeholders, SCI has prepared a Draft Engineer’s Report that provides the needed information to form a **Benefit Assessment District** pursuant to the Benefit Assessment Act of 1982. The formation of such an Assessment District is subject to the procedures outlined within Proposition 218 – the Right to Vote on Taxes Act, approved November 6, 1996.

A Benefit Assessment levied under the new Assessment District has these characteristics:
- Assessment must be based on proportional special benefit to the property
- Subject to approval by affected property owners
- Votes are weighted by the amount of each landowner’s proposed assessment
- Approval requires support of 50 percent of weighted ballots returned
- Procedure and most requirements governed by Proposition 218
- Benefit calculation and assessment methodology described in an Engineer’s Report

**Discussion**
At the February 17, 2009, TRLIA Board meeting a workshop was conducted to discuss the proposed Assessment District. At the conclusion of the workshop, the Board gave direction to TRLIA staff to finalize the proposed Assessment District documentation and schedule for consideration the initial formation resolutions for the March 3rd Board meeting.

In addition to the proposed Resolution, two documents are attached to this staff report: 1) a **legal opinion** that addresses TRLIA’s authority to conduct this assessment and participate in the O&M program; and, 2) the Engineer’s Report, dated February 26, 2009. The Engineer’s Report, legal opinion, and numerous other supporting documents have been placed on the TRLIA web page for the public to review.

The Engineer’s Report provides details on the proposed Assessment District that include:

- **Need for the Assessment District.**
  - Aggressive repair and maintenance program will reduce the risk of flooding
  - Funding for levee operations & maintenance is **required** for levee accreditation by the FEMA
    - If FEMA maps are finalized as currently proposed, then land use options (e.g. building) and flood insurance rates will be impacted ($2,200/year increase)
    - If levees are accredited by FEMA, then property owners will remain eligible for low-cost flood insurance
  - RD 784 revenues are not adequate to fund the requirements of **urban levee O&M**
  - Assessment District will generate revenues to maintain high level of urban flood protection
  - Depending upon local growth – future repayment of Levee Local-Share Capital Improvements
• Finalization of preliminary flood maps is affected by TRLIA's progress

❖ Proposed **Assessment Boundaries.**
  • The outer boundary of the proposed Assessment District is based on water flow modeling and includes all parcels that receive flood protection benefit from the jointly maintained levees.
  • The interior area of the proposed Assessment District is broken into separate areas that receive different levels of benefit based on flood damage (depth of flooding) and flood risk (roughly percentage of TRLIA improved levees protecting the property).
  • The proposed Assessment District is larger than existing RD784 boundaries to include property that today is receiving benefit, but not contributing to levee maintenance costs.

❖ Estimate of the additional revenues that are needed.
  • It's estimated that it will cost an additional $800,000 each year to meet urban standards for levee operations and maintenance.
  • Increased maintenance requirements include: increased manpower and higher technical skills; more frequent inspections; improved levee maintenance equipment; non-burn vegetation management; acquisition and maintenance of flood fighting and maintenance easements; and repairs, when needed.
  • As proposed, future growth within the Assessment District could potentially allow for the repayment of local advance funding of improvements (Yuba County and YCWA jointly provided nearly $50 million toward the local cost of Feather River levee improvements); however, the costs for funding this repayment are not included in the proposed assessment at this time.

❖ Determination of assessment rates for property owners within the proposed Assessment District.
  • The proposed annual assessment is based on the special flood protection benefit derived from increased levee maintenance.
  • Rates for individual properties are based on the zone in which the property is located, land use (e.g., residential versus agriculture), and, for certain land use types, the parcel size.
  • Rates for property owners within the current RD784 District have been adjusted to reflect the portion of the existing RD 784 assessment that funds levee maintenance.
  • The analysis results in rates that are based on the proportional special benefit received by each parcel within the Assessment District. The proposed assessment for a residential home on one acre or less ranges from **$11 to $148 per year** depending upon the benefit zone (includes RD 784 adjustment were applicable).
The proposed schedule for the formation of the Assessment District is:

- Board Resolution: March 3
- Ballots Mailed: March 24
- Public Hearing: May 12
- Tabulation of Ballots: May 13 – 29
- Final Board Resolution: June 2

**Fiscal Impact**

Approximately $400 million is being invested in levee improvements in South Yuba County.

- Once completed, the improvements will provide 200-year flood protection.
- An aggressive operations and maintenance program will reduce the risk of flooding over the long-term.

TRLIA Benefit Assessment is initially projected to generate **$800,000/yr.**

Growth within the Assessment District may potentially generate future additional revenues to repay Yuba County and YCWA for their advance funding of levee improvements. **Initially, no costs for funding this item are allocated**

TRLIA will enter into an agreement with RD 784 to perform the additional required maintenance.

**Attachments**

1. Proposed Resolution
2. Legal Opinion, dated February 23, 2009
3. Engineers Report, dated February 26, 2009
PREPARED FOR POSTING ON TRLIA WEBSITE

To: PAUL BRUNNER, EXECUTIVE DIRECTOR, TRLIA
From: SCOTT L. SHAPIRO
       JOSEPH S. SCHOFIELD
Date: FEBRUARY 23, 2009
Re: TRLIA’S AUTHORITY TO FUND ONGOING MAINTENANCE OF IMPROVED LEVEES

I. ISSUE AND SUMMARY

This memorandum addresses whether the Three Rivers Levee Improvement Authority’s (TRLIA’s) formation document grants it the legal authority to fund the increased maintenance activities needed to sustain the levees at the design level of newly installed flood control improvements. It is our conclusion, based on the reasoning described below, that TRLIA may fund the increased level of maintenance.

For purposes of this analysis, we have assumed:

- TRLIA’s financing will not cover Reclamation District No. 784’s (RD 784’s) historical level of maintenance of the levees, but only the new or enhanced activities required to ensure that TRLIA’s levee improvements continue to meet the new design level of flood protection,
- RD 784 will continue to rely on an existing assessment to fund its historical level of maintenance, and
- No local entity other than RD 784 and TRLIA has a role in physically maintaining and operating the levees within RD 784’s boundaries.

TRLIA was formed by a Joint Exercise of Powers Agreement (Agreement) executed by Yuba County and RD 784. The Agreement gives TRLIA the general power to provide improved flood protection in the county and to finance the improvements and related activities, and specifically authorizes it to maintain the public improvements it acquires, constructs or installs. But the Agreement also states it “is not contemplated that” TRLIA will finance or contract for the periodic levee maintenance that RD 784 is obligated to do or has otherwise previously conducted.

We believe that, read together, these provisions are intended to ensure that RD 784 continues providing its historical level of maintenance at its own cost, while authorizing TRLIA to fund or contract for any additional maintenance necessary to assure that the enhanced level of flood protection will be provided in the long-term. First, the Agreement expressly authorizes TRLIA
to provide levee maintenance. Given that TRLIA was formed for the immediate primary purpose of improving the levee segments within RD 784’s boundaries, the Agreement’s express grant of maintenance authority would be made meaningless if TRLIA were prohibited from playing any role in maintaining those same improvements. Second, the periodic maintenance provision focuses on RD 784’s historical level of activity (maintenance done “otherwise in the past”), suggesting that the provision was intended to simply preserve the status quo—i.e., RD 784’s existing maintenance role—not provide for an expanding one over time. Third, the provision speaks in terms of RD 784’s “obligation” to provide maintenance. The Agreement appears to be carving out a category for maintenance that RD 784 is obligated to do and that TRLIA is not. Because TRLIA has assumed most of the maintenance obligations, and the remainder are shared between TRLIA and RD 784, the provision does not appear to apply. Fourth, there is no apparent rationale for a provision that would prevent TRLIA from funding maintenance of its own levee improvements. Fifth, the provision is not expressed as a binding limitation, but rather as a general statement of intent. Agreements tend to rely on general statements of intent when the parties fear that an express restriction might have unintended consequences. It seems likely that the RD 784 maintenance provision was drafted as a general statement of intent in order to avoid preventing TRLIA from being able to provide for the maintenance of its own levee improvements.

II. DISCUSSION

A. Factual Background

1. Purpose of the Agreement

Yuba County and RD 784 are the two parties to the Agreement. Their purpose in executing the Agreement was to form a joint powers agency (TRLIA) that would implement new flood control improvements, primarily in the flood-prone but urbanizing areas along the Yuba, Bear, and Feather River levees under RD 784’s jurisdiction. RD 784 had primarily maintained the levees for agricultural purposes, and on its own lacked the funding and institutional support necessary to undertake a large-scale levee improvement project of the type proposed. Acting together through a new joint powers agency, the County and RD 784 could more effectively provide enhanced flood protection in this developing area.

2. Development and Components of Three Rivers Maintenance Program

TRLIA is entering the final stages of improving 29.3 miles of the RD 784 levee system. The improvements include installation of slurry walls, relief wells, monitoring wells, stability berms, and seepage berms, as well as new setback levees, increased rock erosion protection, and widened toe access corridors. To ensure the improved levee system continues to provide the design level of flood control, it will be necessary both to maintain the new and modified features and to develop and implement a more rigorous maintenance regimen for the levees in general.

1 See generally MBK Engineers, TRLIA O&M Needs for Assessment District (Sept. 2008).
The levees are currently maintained by RD 784 on a modest budget, and RD 784 will continue maintaining the levees after the improvements are complete. Although RD 784 has passed all State levee inspections in the past, it was necessary to develop a program to maintain the levees at the design level contemplated for the improvements. The program identifies the baseline maintenance activities historically performed by RD 784, and outlines the new and modified activities to be undertaken upon completion of the levee improvements. The baseline maintenance activities included inspection of erosion, scaping, and rodents; vegetation management (principally burning); periodic repairs; trapping of rodents; and operation of pumps. The enhanced maintenance program will include increased inspection, surveying, a more rigorous vegetation management program, more frequent repairs, tracking or dragging of levees, road resurfacing, equipment replacement, and additional electrical costs, as well as maintenance of the new levee features.²

A significant increase in funding will be needed for RD 784 to implement the new maintenance program. The funds will be provided largely by an assessment district established by TRLIA for that purpose.³ The Engineer’s Report for the new assessment includes a comprehensive breakdown of the existing maintenance costs ($247,000 per year) and the costs of the new maintenance program ($1,047,500 per year).⁴

3. Responsibilities for Maintenance Program

RD 784 is obligated to maintain the existing levees, which are part of the Sacramento River Flood Control Project. Pursuant to Federal law, the U.S. Army Corps of Engineers (Corps) may not expend money to develop flood control projects unless it receives assurances from the State (or a political subdivision) that it will maintain and operate all the completed works in accordance with the regulations prescribed by the Secretary of the Army.⁵ The State provided the assurances for the Sacramento River Flood Control Project pursuant to a Memorandum of Understanding in 1953, and then transferred the responsibility for maintenance of the levees to local districts, in this case to RD 784.⁶

The new levee improvements are a different matter. To install the new levee improvements, TRLIA needed a series of State and Federal regulatory approvals, including encroachment permits⁷ from the Central Valley Flood Protection Board and permission from the Corps to alter

² The levee maintenance program is discussed in detail in TRLIA O&M Needs for Assessment District and the TRLIA Levee and Flood Control Facilities Assessment District Engineer’s Report (Feb. 4, 2009) (Engineer’s Report).
³ This memorandum does not discuss the details of the assessment process.
⁴ Engineer’s Report at 12, Table 3.
⁵ See, e.g., 33 U.S.C. § 701c.
⁷ An encroachment permit is a State approval necessary to modify any levee under the jurisdiction of the Central Valley Flood Protection Board (formerly the Reclamation Board). See, e.g., 23 Cal. Code Regs., § 6 et seq.
the Sacramento River Flood Control Project pursuant to 33 USC section 408. The encroachment permits obligate TRLIA to maintain the new levee improvements (e.g., slurry walls, seepage berms):

The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources or any other agency responsible for maintenance.8

In addition, as a condition of the grant funding it received to construct the flood control improvements, TRLIA was obligated to operate, maintain and repair the improvements. As stated in Standard article A-9 of the grant contracts:

For the useful life of the Project or Implementation Unit and in consideration of the Grant made by the State, the Local Public Entity agrees to expeditiously commence and to continue operation of the Project or Implementation Unit and shall cause the Project or Implementation Unit to be operated in an effective and economical manner; shall provide for all repairs, renewals, and replacements necessary to the efficient operation of the same; and shall cause the same to be maintained in as good and efficient condition as upon its construction, ordinary and reasonable wear and depreciation accepted. Refusal of the Local Public Entity to operate and maintain the Project or Implementation Unit in accordance with this provision may, at the option of the State, be considered a breach of this Grant Agreement and may be treated as default under Article B-2.

Finally, prior to modifying any component of the Sacramento River Flood Control Project (Project), approval must be obtained from the Corps. Because the State formally assumed responsibility from the United States for operation and maintenance of the Project, it is the State (through the Central Valley Flood Protection Board) that must seek the Corps’ approval of any modifications and, in turn, provide the associated maintenance assurances. After obtaining Corps approval and making the associated assurances, the State typically assigns those maintenance responsibilities to the local flood control district, such as through a Cooperation Agreement.9

All but one of the Cooperation Agreements executed for the TRLIA levee improvements state that TRLIA and RD 784 shall operate and maintain the facilities and related features constructed as part of the Project.10 Other provisions also suggest a shared obligation: “If the District and Three Rivers have failed or refused to perform the obligations set forth in [the operation and

8 Reclamation Board Permit No. 17782 BD, Special Permit Condition 25 (May 19, 2005); see also Reclamation Board Permit No. 17921 GM, Special Permit Condition 15 (July 21, 2005).
9 See, e.g., ER 1130-2-530 § 3-1 (Corps Flood Control Operations and Maintenance Policies Report).
10 One of the Cooperation Agreements states that the operation and maintenance responsibility is RD 784’s but that “This obligation shall not diminish [TRLIA’s] obligation to operate and maintain the facilities and related features constructed as part of the Project described in [the relevant encroachment permit].” Cooperation Agreement Between the Central Valley Flood Protection Board, the Three Rivers Levee Improvement Authority, and Reclamation District No. 784 for Alteration of the Federal Project Levees on the Feather River, § IIC.
maintenance section of the Cooperation Agreement]," the Board may act in their stead.\textsuperscript{11} Regarding payment for the work, the Cooperation states: "[TRLIA and the District] agree[] that [they] will levy and collect assessments or user charges as may be necessary and permissible under State law to satisfy [their] obligations to the State and the Board as required by this Agreement."\textsuperscript{12}

B. The Agreement Grants Broad Authority for Flood Control Improvements with a Narrow Maintenance Restriction.

The Agreement gives TRLIA broad power to improve and finance flood control within Yuba County. As stated in section 2.01:

The primary purpose of this Agreement is to provide for flood control improvements located in the County, including improvements to the levee system and related drainage improvements. The Authority may undertake any activities necessary or desirable to achieve its primary purpose including but not limited to . . . the provision of financing for improvements and related activities. . . .

This grant would unquestionably be sufficient for TRLIA to provide funding for the maintenance of the new flood protection control improvements. The provision of flood protection improvements includes maintenance because maintenance is an essential feature of flood protection, without which the project works would steadily decline below their design level over time. The Agreement also expressly gives TRLIA the authority to finance both improvements and "related activities," and maintenance would qualify as a related activity. Moreover, section 4.03(c) of the Agreement gives the Authority the power to "acquire, construct, manage, maintain or operate any Public Improvement" (emphasis added). A "Public Improvement" includes "any levee, drainage or flood control improvement and related works and facilities that are within the common powers of [TRLIA's members] to acquire, construct, or install." Agreement, Art. I.

This grant of power, however, is informed by the following statement of intent:

It is not contemplated that the Authority will in any way contract for or finance periodic levee maintenance activities which the District [RD 784], other reclamation districts or other governmental or non-governmental entities are obligated to do or which otherwise in the past have been done by them.

\textit{ld.} § 2.01. The Agreement itself does not define the relevant terms of, or further elaborate on, this statement.

\textsuperscript{11} ld. § III.B.

\textsuperscript{12} ld. § IVA&C.
C. The Agreement Must Be Interpreted According to General Principles of Contract Law, Focusing on the Parties' Intent.

The Agreement is a joint powers agreement made pursuant to Government Code section 6500 et seq. Although joint powers agreements establish the governance and authority of public entities that are separate and distinct from the agencies that form them, the Court of Appeal has repeatedly held that such agreements are to be interpreted in the same way as other contracts, with the parties' intent being the controlling factor, rather than with reference to generally applicable law. See Orange County Water Dist. v. Ass'n of Cal. Water Agencies Jt. Powers Ins. Auth., 54 Cal. App. 4th 772, 778 (1997) (party intent, not insurance law, should be used to interpret scope of joint powers self-insurance pooling agreement); accord City of S. El Monte v. S. Cal. Joint Powers Ins. Auth., 38 Cal. App. 4th 162, 1639–40 (1996). The controlling principles of contract interpretation include effectuating the parties' mutual intention at the time of contracting, reading the sections of the contract together to ensure reasonable consistency across the sections, and giving a plain, commonsense reading to the contractual language. See, e.g., Civ. Code §§ 1636, 1638, 1641. In addition, a “contract may be explained by reference to the circumstances under which it was made, and the matter to which it relates.” Id. § 1647.

D. RD 784's Obligation to Conduct Maintenance Activities

1. It Would Thwart the Agreement to Prohibit RD 784 from Funding Maintenance of the Levee Improvements.

The general tenor of the Agreement strongly suggests that TRLIA will play some role in financing maintenance of levees within RD 784's boundaries. As quoted above, the Agreement specifically contemplates that TRLIA will finance maintenance for the flood control improvements it provides. Agreement §§ 2.01, 4.03(c). And TRLIA was formed for the immediate purpose of enhancing the level of flood control provided by the levees within RD 784's jurisdiction. Thus, the maintenance intent provision cannot reasonably be read to foreclose all financing by TRLIA of the levees periodically maintained by RD 784. To so interpret would make one of TRLIA's most significant express powers (provision of maintenance) essentially meaningless and thereby violate one of the fundamental provisions of contract law, i.e., that one provision of a contract cannot nullify other provisions. Boghos v. Certain Underwriters at Lloyd's of London, 36 Cal. 4th 495, 503 (2005) ("the rule's effect [Civil Code § 1641], among other things, is to disfavor constructions of contractual provisions that would render other provisions surplusage").

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2. The Provision Was Apparently Intended to Maintain the Status Quo: No TRLIA Funding for RD 784’s Historical Level of Operation

i. The Language of the Provision Is Focused on Current and Past Maintenance Activities.

Linguistically, the provision suggests it was intended merely to preserve RD 784’s historical maintenance role (i.e., the status quo), not to make all new or expanded maintenance activities within its boundaries the exclusive province of RD 784. The provision says it is not contemplated that TRLIA will fund or contract for periodic maintenance activities that RD 784 “[is] obligated to do, or which otherwise in the past have been performed by [it].” Had the provision been intended to cover any future extensions of RD 784’s obligations, it could easily been phrased so. Instead, it employed words focused on RD 784’s current (“is/are obligated”) and past (“in the past”) activities.

ii. The Only Apparent Rationales for the Provision Are to Preserve the Status Quo, Not to Prohibit TRLIA from Funding the Maintenance of Its Own Levee Improvements.

The rationale behind the maintenance provision is unstated, and is not immediately obvious. Nonetheless there are a few plausible motivations for each party to the Agreement to have wanted that provision, and none of them is consistent with prohibiting TRLIA from funding maintenance for the new improvements.

First, the County may have wanted the provision in order to ensure RD 784 continues its ongoing maintenance activities at its own cost. The Agreement’s general purpose was to create a new entity to increase flood protection, not to completely assume flood protection responsibilities in the area. The County may have wanted to ensure that it was not helping to take over duties that another public entity was already responsible for. Moreover, RD 784 has an existing assessment, and assessments are notoriously difficult to increase since adoption of Proposition 218. If there was an implication that TRLIA would assume all funding for the levees, the existing assessment might be lost.

Second, RD 784 may have wanted the provision to ensure it retained its historical function as the local maintaining agency. RD 784’s primary role is to maintain the local levees, and the landowners who have run the district historically may have wanted to ensure that their district was not displaced by a new entity. Entities do not lightly sacrifice authority.

Both of these rationales are consistent with TRLIA’s funding the maintenance of the improved levees in a way that respects the status quo—i.e., RD 784’s continued maintenance of the levees using its existing assessments—but with additional financing to be provided by TRLIA to cover new or enhanced maintenance activities.
iii. The Wording of the Provision Implies an Intent to Avoid Unintended Interference with Maintenance Funding.

The provision’s phrasing suggests that the parties wanted to avoid interference with TRLIA’s ability to provide for maintenance of the improvements. The provision is not worded as an express prohibition or limitation, even though it easily have been so phrased (e.g., “[TRLIA] will not in any way contract for or finance periodic levee maintenance activities . . .”). Rather than use terms such as “will not” or “shall not,” it states that certain types of maintenance funding are “not contemplated.” Contracting parties tend to rely on these more general intent statements when they fear that a more binding provision may thwart one of the underlying purposes of the contract. In this case, it seems highly likely that the provision was phrased as a statement of intent to avoid interference with TRLIA’s authority to fund new maintenance activities necessitated by the levee improvements.

3. RD 784 Is Not Solely Obligated to Maintain the Improvements.

Even though the parties appear to have intended for TRLIA to be able to fund maintenance of the new levee improvements, the “obligation” language warrants further discussion because (as discussed above) RD 784 is legally “obligated” to maintain the improvements due to a clause in the Cooperation Agreements. At any rate, the obligation of a reclamation district to maintain levies derives from two sources: (i) its general jurisdictional authority the reclamation works within its boundaries pursuant to the Reclamation District Law, Water Code § 50000 et seq., and (ii) the assurances it makes to the State of California and other sovereign and regulatory authorities as to specific flood control works via contract or permit condition.

The Water Code is somewhat vague regarding a reclamation district’s obligation to maintain levies, and could not be reasonably said to obligate RD 784 to maintain the levees according to any particular plan, including the O&M plan prepared by TRLIA. Section 50652 says that a reclamation district’s board of trustees “shall exercise general supervision and complete control over the . . . maintenance and operation of the reclamation works.” See also Water Code § 50300 (district may be formed by petition to “reclaim the land” or to “maintain[,] protect[,] or repair[ existing] reclamation works”). Reclamation works are broadly defined as “such public works necessary for the watering, unwatering, or irrigation of district lands.” Id. § 50013. The Reclamation District Law does not specify any particular level of maintenance, though Section 8608 requires the Central Valley Flood Protection Board to establish and enforce maintenance and operation standards for levies. However, those standards are not specific enough to require implementing the TRLIA to sustain plan. For example, “maintenance activities” are defined broadly as “any work required to retain or maintain the intended functions of flood control.” Cal. Code Regs., tit. 23. § 4(u). The levee-specific standards are fairly precise regarding construction, but much less so regarding maintenance activities. See generally id. § 120. The State regulations do require levies to be built and designed in accordance with the Corps’ manual “Design and Construction of Levees.” But the manual does not impose precise standards. Rather it is “intended as a guide for designing and constructing levies and not intended to replace the judgment of the design engineer,” Manual No. 1110-2-1913 (Apr. 30, 2000); see also Tilton v. Reclamation District No. 800, 142 Cal. App. 4th 848, 862–63 (2006).
Other applicable standards are also discretionary. *See Tilton* at 861–63. In this regard, it is worth noting that RD 784 has consistently passed its State levee inspections under its historical maintenance regimen, 14 suggesting that its historical maintenance was all it was “obligated” to do under the Water Code.

Regarding contractual and conditioned obligations to undertake maintenance, most of the obligations were assumed by TRLIA, not RD 784, and TRLIA undertook those obligations with RD 784’s knowledge; two of the five positions on TRLIA’s Board of Directors are filled by members of RD 784’s Board of Trustees. As discussed above, TRLIA’s maintenance obligations for the new improvements derive from conditions in grants and in encroachment permits.

However, the Cooperation Agreements have imposed the maintenance obligation upon both TRLIA and RD 784. Thus, in a literal sense, the Cooperation Agreement does obligate RD 784 to maintain the levee improvements. However, RD 784’s obligation under the Cooperation Agreement is probably the same as that under the Water Code—i.e., the requirement to maintain the levees, though not in any particular way. The TRLIA maintenance plan is, in that sense, voluntary.

Moreover, the “obligation” language seems inconsistent with the fact that this legal obligation occurred only after the Agreement was executed. It would be strange for the Agreement to have made TRLIA’s funding authority subject to a potential future condition—i.e., RD 784’s being assigned the maintenance obligation (along with TRLIA) of the levee improvements—rather than subject to an existing and knowable condition at the time the Agreement was executed.

Perhaps more importantly, the maintenance provision seems to reflect an attempt to carve out a category for maintenance activities that RD 784 alone is obligated to do, and that TRLIA is not. The provision discusses RD 784’s obligations and its past activities as if they were the sole obligations. Given that the Agreement enabled TRLIA to execute documents that gave it a shared legal obligation to maintain the levee improvements, it would be irrational for the Agreement to simultaneously prohibit TRLIA from meeting those obligations.

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THREE RIVERS LEVEE IMPROVEMENT AUTHORITY

RESOLUTION NUMBER 2009-03

A RESOLUTION OF THE BOARD OF DIRECTORS OF
THE THREE RIVERS LEVEE IMPROVEMENT AUTHORITY
INITIATING PROCEEDINGS, PROVIDING INTENTION TO LEVY ASSESSMENTS, PRELIMINARILY
APPROVING ENGINEER'S REPORT, AND PROVIDING FOR NOTICE OF HEARING FOR THE
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY LEVEE AND FLOOD CONTROL FACILITIES
ASSESSMENT DISTRICT FOR FISCAL YEAR 2009-10

WHEREAS, since 2004 the Three Rivers Levee Improvement Authority ("Three Rivers") has been
making substantial flood control improvements along portions of the Feather and Yuba Rivers, and for that
purpose secured bonds and other funding with long-term repayment obligations as more fully described in
the Engineer's Report referenced below;

WHEREAS, Three Rivers plans to establish a benefit assessment district to fund the ongoing
maintenance, operation, repair and installation of the improvements (the "Services");

WHEREAS, the Services will provide special benefits to certain real properties within the area that
is subject to the jurisdiction of Three Rivers (the "Properties");

WHEREAS, the boundaries of the proposed assessment district were fixed to include all the
Properties and to exclude any properties not receiving special benefits from the Services;

WHEREAS, Three Rivers directed SCI Consulting Group to have a state-licensed professional
engineer to prepare a detailed Engineer's Report establishing a methodology for the allocation of special
assessments to the Properties; and

WHEREAS, the adoption of a new special assessment is subject to constitutional procedural
requirements and majority approval by the owners of the Properties;

NOW, THEREFORE, BE IT RESOLVED THAT:

1. To provide for the Services, the Board hereby proposes the formation of a benefit
assessment district (Three Rivers Levee Improvement Authority Levee and Flood Control Facilities
Assessment District, or the "District") pursuant to Article XIII D of the California Constitution and the Benefit
Assessment Act of 1982, Gov't Code § 54703 et seq. (the "Act").

2. The Services will include the inspection, maintenance, repair and installation of levees and
levee patrol roads; the maintenance and repair of pumping stations; control of vegetation and rodents;
electricity to operate pump stations adjacent to the levees; the reimbursement of costs of construction of
levee improvements along portions of the Feather and Yuba Rivers; and other flood control services as
referred to in the Engineer's Report identified below. "Installation" means the construction or installation of
improvements, including, but not limited to, land preparation, such as grading, leveling, cutting and filling.
"Maintenance" means the furnishing of services and materials for the ordinary and usual maintenance,
operation and servicing of any improvements, including repair, removal, or replacement of all or part of any

988672.1
improvement and the removal of rubbish, debris, and other solid waste.

3. The proposed boundaries of the District are as shown on the Assessment Diagram, Three Rivers Levee Improvement Authority Levee and Flood Control Facilities District, attached hereto as Exhibit A and incorporated herein by this reference. As proposed, the District will include four benefit zones: South Zone, Central A Zone, Central B Zone, and East Zone. The Board hereby authorizes and directs the Board Secretary to endorse the certifications on the Assessment Diagram and to file a copy of the Assessment Diagram with the Yuba County Recorder.

4. The Engineer's Report, which is attached hereto as Exhibit B and incorporated herein by this reference, has been considered by the Board and is hereby preliminarily approved. The Engineer's Report includes a full and detailed description of the Services, the proposed boundaries of the District, a detailed explanation of the special benefits to be provided by the Services, and the corresponding proposed assessments upon the Properties.

5. As further explained in the Engineer's Report, the assessment, as it applies to any parcel, may be corrected, cancelled or a refund granted as appropriate, by order of the Board or by order of the Executive Director of Three Rivers. Any such corrections, cancellations or refunds shall be limited to the current fiscal year.

6. As further explained in the Engineer's Report, the maximum proposed fiscal year 2009-2010 assessment rate per single-family equivalent benefit unit is $148.04 for the South Zone, $11.33 for the Central A Zone, $32.16 for the Central B Zone, and $11.12 for the East Zone. If approved, these rates will be increased in future years by an amount equal to the annual change in the San Francisco Bay Area Consumer Price Index ("CPI"), not to exceed 4% per year. In the event that the annual change in the CPI exceeds 4%, any percentage change in excess of 4% may be cumulatively reserved and added to the annual change in the CPI for years in which the CPI change is less than 4%.

7. Future assessment revenues in excess of what is required for operation and maintenance activities may be used to repay obligations that were incurred in obtaining local funding to install the levee improvements that specially benefit the Properties, including the issuance of bonds based on such revenues in order to facilitate repayment of the local funding obligations.

8. SCI Consulting Group is hereby designated as Engineer of Work for purposes of these proceedings and is ordered to complete all technical work necessary to support the formation of the District and levying of the special benefit assessment in accordance with the Act and Article XIII D of the California Constitution.

9. On May 12, 2009 at 6:00 pm, the Board will hold a public hearing on the proposed formation of the District and the levying of the special benefit assessment. The hearing will be held in the chambers of the Yuba County Board of Supervisors, located at 915 8th Street, Suite 109, Marysville, California. At the hearing, landowners within the proposed District will have the opportunity to make written or oral comments on the proposed assessment and to submit new or changed assessment ballots. Following the public hearing, the assessment ballots will be tabulated. On June 2, the results of the assessment ballot proceeding will be announced, and the Board will take final action regarding the formation of the District and levying of the special benefit assessment.
10. The Executive Director is hereby authorized and directed to work with the Board Secretary and Engineer of Work to cause Notice of the hearing to be given in accordance with law by mailing, postage prepaid, in the United States mail, and such Notice shall be deemed to have been given when so deposited in the mail. The mailed Notice shall be given to all property owners within the District by such mailing by name to those persons whose names and addresses appear on the last equalized secured property tax assessment roll of the County of Yuba, or in the case of any public entity, the representative of such public entity at the address thereof known to the Board Secretary. The Notice shall include, but not be limited to, the total amount of assessment proposed to be levied in the District, the assessments proposed for the owner's particular parcel(s) and the duration thereof, the reason for the assessments and the basis upon which the amount of the assessments was calculated. Each Notice shall also contain an assessment ballot, a summary of the procedures applicable to the completion, return and tabulation of assessment ballots, and a statement that the existence of a majority protest will result in the assessment's not being imposed.

11. The Executive Director is hereby authorized and directed to work with the Board Secretary, the Engineer of Work, the Yuba County Clerk/Recorder and Michael Hinz, CPA as appropriate to conduct the balloting procedure, including the tabulation of ballots submitted prior to the close of the public hearing.

ADOPTED as a resolution of the Board of Directors of the Three Rivers Levee Improvement Authority at a regular meeting duly held on the 3rd day of March, 2009.

________________________
CHAIR

APPROVED AS TO FORM:

________________________
DONNA STOTTLEMEYER, SECRETARY

ATTEST:

________________________
DONNA STOTTLEMEYER, SECRETARY

STATE OF CALIFORNIA )
COUNTY OF YUBA ) ss
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY )

I, Donna Stottlemyer, Secretary of the Board of Directors of Three Rivers Levee Improvement Authority, do hereby certify that the foregoing is a true and correct copy of Resolution No. _____ adopted by the Board of Directors of the Three Rivers Levee Improvement Authority, Yuba County, California, at a regular meeting thereof, held on the 3rd day of March, 2009 by the following vote:

AYES:
NOES:
ABSENT:

________________________
DONNA STOTTLEMEYER, SECRETARY

SECRETARY OF THE BOARD


SECRETARY OF THE BOARD


SECRETARY OF THE BOARD


COUNTY AUDITOR, COUNTY OF YUBA

Note:
REFERENCE IS HEREBY MADE TO THE MAPS AND DEEDS OF RECORD IN THE OFFICE OF THE ASSESSOR OF THE COUNTY OF PLACER FOR A DETAILED DESCRIPTION OF THE LINES AND DIMENSIONS OF ANY PARCEL SHOWN HEREIN. THOSE MAPS SHALL GOVERN FOR ALL DETAILS CONCERNING THE LINES AND DIMENSIONS OF SUCH PARCELS. EACH PARCEL IS IDENTIFIED IN SAID MAPS BY ITS DISTINCTIVE ASSESSOR’S PARCEL NUMBER

Legend
- Assessment District Boundary
- Parcels
- Highways and Major Roads

Assessment Diagram
Three Rivers Levee Improvement Authority
Levee and Flood Control Facilities Assessment District
No Scale
February 25, 2009
THREE RIVERS LEVEE IMPROVEMENT AUTHORITY (TRLIA)
LEVEE AND FLOOD CONTROL FACILITIES ASSESSMENT DISTRICT

ENGINEER’S REPORT

FEBRUARY 26, 2009

Pursuant to California Government Code Section 54710 et seq., and Article XIIIID of the California Constitution

Engineer of Work:
SCIConsultingGroup
4745 Mangels Boulevard
Fairfield, California 94534
Phone 707.430.4300
Fax 707.430.4319
www.sci-cg.com

EXHIBIT B
BOARD OF DIRECTORS
Mary Jane Griego, Chair
Rick Brown
Jerry Crippen
Don Graham
John Nicoletti

EXECUTIVE DIRECTOR
Paul Brunner

SECRETARY
Donna Stottlemeier

GENERAL COUNSEL
Scott Shapiro

ENGINEER OF WORK
SCI Consulting Group
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INTRODUCTION

The Three Rivers Levee Improvement Authority (TRLIA) is a joint powers authority formed by Reclamation District 784 (RD 784) and Yuba County to finance, construct, and jointly maintain with RD 784 significant levee improvements surrounding the South Yuba County area. A four-phase, $405 million, comprehensive improvement program has been initiated and is being managed by TRLIA. This program is designed to bring levees along the Yuba, Feather, and Bear Rivers and the Western Pacific Interceptor Canal up to an urban level of flood control protection and provide enhanced maintenance and inspection based on more stringent urban levee standards. The first three phases have been completed, and construction of the fourth phase is anticipated to be completed in 2009.

Approximately 27,000 acres of land, including the communities of Linda, Olivehurst, Arboga, and Plumas Lake, are protected by the upgraded levees and flood control systems jointly maintained by TRLIA and RD 784.

TRLIA has implemented this benefit assessment process, and the underlying engineering, to establish a reliable long-term funding source supporting the maintenance and repair of the improved levees and, potentially, the repayment of certain local-share capital obligations for the repair and reconstruction of the levees.
South Yuba County, characterized by relatively flat terrain and surrounded on three sides by rivers, has a history of devastating floods. Listed below are some of the major floods that have occurred since 1950.
### TABLE 1 – MAJOR FLOODS AFFECTING SOUTH YUBA COUNTY

<table>
<thead>
<tr>
<th>Year</th>
<th>Flood</th>
<th>Deaths</th>
<th>Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>Arboga Flood</td>
<td>3</td>
<td>16,000 acres inundated, 800 homes and businesses damaged</td>
</tr>
<tr>
<td>1986</td>
<td>Linda Flood</td>
<td>12</td>
<td>7,000 acres inundated, 4,000 homes and businesses damaged</td>
</tr>
<tr>
<td>1950</td>
<td>Linda/Hammonton Flood</td>
<td>9</td>
<td>$32 million in damages statewide</td>
</tr>
</tbody>
</table>

South Yuba County is at a high risk of flooding due to the following factors:

- **Topography.** South Yuba County is relatively flat. Runoff from the Sierra Nevada Mountains to the north and east drains into the Feather, Yuba and Bear Rivers which have a natural tendency to overflow their banks in the flat valley.

- **Local Soil Conditions.** Levees were traditionally constructed by farmers and other early settlers with readily available local materials. Early levee improvements focused on the levee materials and construction but neglected the levee foundations which were built on permeable materials common in South Yuba County. This permeable material allows water from the flood-swollen rivers to seep under the levees. The most recent improvements address the levee construction as well as the foundation and potential for under-seepage.

- **Low Interior Elevations.** Local runoff collected behind the levees must be pumped over levees to be discharged into the rivers.

#### PROPOSITION 218

This proposed assessment is to be formed consistent with Proposition 218, The Right to Vote on Taxes Act, which was approved by the voters of California on November 6, 1996, and is now Articles XIII C and XIII D of the California Constitution. Proposition 218 provides for benefit assessments to be levied to fund the cost of providing services and improvements as well as maintenance and operation expenses to a public improvement which provides special benefits to the assessed property.

Proposition 218 describes a number of important requirements, including property-owner balloting, for the formation and continuation of assessments, and these requirements are satisfied by the process used to establish this proposed assessment.
SILICON VALLEY TAXPAYERS ASSOCIATION, INC. v SANTA CLARA COUNTY OPEN SPACE AUTHORITY

In July of 2008, the California Supreme Court issued its ruling on the Silicon Valley Taxpayers Association, Inc. v. Santa Clara County Open Space Authority ("SVTA v. SCCOSA"). This ruling is a significant ruling regarding Proposition 218 and benefit assessment districts. Several of the most important elements of the ruling included further emphasis that:

- Benefit assessments are for benefit to property, not just people.
- Benefit assessment districts must be narrowly drawn.
- Improvements and services funded by benefit assessments must be clearly identified.
- Benefit assessments are for special, not general, benefit.

This Engineer’s Report, and the process used to establish this proposed assessment, is consistent with the SVTA v. SCCOSA decision.

ASSESSMENT PROCESS

This Engineer’s Report (the "Report") was prepared to: 1) contain the information required by Government Code Section 54716, including a) a description of the services proposed to be financed through the revenue derived from the assessment, b) a description of each lot or parcel of property to be subject to the assessment, c) the amount of the proposed assessment for each lot or parcel, d) the basis of the assessment, e) the schedule of the assessment; 2) establish a budget to fund the installation, improvement, maintenance and operation of levee and other flood control improvements on the Feather and Yuba Rivers and to provide services to reduce the potential for levee failure and flooding on the Feather River, Yuba River, Bear River, and Western Interceptor Canal, and to provide other flood control services (the "Services"); 3) determine the special benefits received from the Services by property within the proposed Three Rivers Levee Improvement Authority Levee and Flood Control Facilities Assessment District (the "Assessment District") and; 4) assign a method of assessment apportionment to lots and parcels within the proposed Assessment District. This Report and the proposed assessments have also been made pursuant to the California Government Code Section 53750 et seq. (the "Code") and Article XIIID of the California Constitution (the "Article").

Following submittal of this Report to the Three Rivers Levee Improvement Authority Board of Directors (the "Board") for preliminary approval, the Board may, by Resolution, call for
an assessment ballot proceeding and public hearing on the proposed establishment of a flood control assessment.

If the TRLIA approves such Resolution, the Secretary of the Board of Directors of the Three Rivers Levee Improvement Authority shall cause the notice, protest, and hearing procedures to comply with Section 53753 of the Code and the Article. A notice of assessment and assessment ballot shall be mailed to property owners within the proposed Assessment District boundaries. Such notice would include a description of the Services to be funded by the proposed assessments, a proposed assessment amount for each parcel owned, an explanation of the method of voting on the assessments and the name and telephone number of the person designated by TRLIA to answer inquiries regarding the protest hearing. Each notice would specify the date, time, and place of the public hearing, a summary of the return procedures, the tabulation procedures, and the total amount and duration of payments. Each notice would also include a ballot on which the property owner can mark his or her approval or disapproval of the proposed assessments as well as affix his or her signature, and a postage prepaid envelope in which to return the ballot.

After the ballots are mailed to property owners in the Assessment District, a minimum 45-day time period must be provided for the return of the assessment ballots. Following this 45-day time period, a public hearing must be held for the purpose of allowing public testimony regarding the proposed assessments. At the public hearing, the public would have the opportunity to speak on the issue.

If it is determined that the assessment ballots submitted in opposition to the proposed assessments do not exceed the assessment ballots submitted in favor of the assessments (weighted by the proportional financial obligation of the property for which ballots are submitted), the Board may take action to approve the levying of assessments for fiscal year 2009-10. If the assessments are so confirmed and approved, the levies would be submitted to the Yuba County Auditor/Controller for inclusion on the property tax roll for Fiscal Year 2009-10. The Board may levy the assessment in future years, without conducting a new vote procedure, if the assessments are within the amounts authorized in the original balloting procedure.
CERTIFICATES

1. The undersigned respectfully submits the enclosed Engineer's Report.

______________________________
Engineer of Work, License No. C052019

2. I, the Secretary of the Board of Directors of the Three Rivers Levee Improvement Authority, hereby certify that the enclosed Engineer's Report, together with the Assessment and Assessment Diagram thereto attached, was filed and recorded with me on ________________.

______________________________
Secretary of the Board

3. I, the Secretary of the Board of Directors of the Three Rivers Levee Improvement Authority, hereby certify that the Assessment in this Engineer's Report was approved and confirmed by the Board on ________________, by Resolution No. ____________

______________________________
Secretary of the Board

4. I, the Secretary of the Board of Directors of the Three Rivers Levee Improvement Authority, hereby certify that a copy of the Assessment and Assessment Diagram was filed in the office of the County Auditor of Yuba County, California, on ________________.

______________________________
Secretary of the Board

5. I, the County Auditor of Yuba County, California, hereby certify that a copy of the Assessment Roll and Assessment Diagram for fiscal year 2009-10 was filed with me on ________________.

______________________________
County Auditor, Yuba County
DESCRIPTION OF SERVICES

The Three Rivers Levee Improvement Authority (TRLIA) provides a range of levee construction, repair, maintenance, finance and flood control prevention activities and services to South Yuba County and its residents. These services protect the usefulness, utility, desirability and livability of property and the inhabitants of property within its jurisdictional area by preventing flooding. TRLIA’s services are currently limited to southern Yuba County, as shown in Figure 1 above.

The additional services (the “Services”) proposed to be undertaken by TRLIA and the cost thereof to be paid from the levy of the annual assessment provide special benefit to Assessor Parcels within the Assessment District as defined in the Method of Assessment herein. These proposed Services are over and above the current services. The formula below describes the relationship between the final level of service, the existing baseline level of service, and the enhanced level of service to be funded by the proposed assessment.

\[
\text{Final Level of Service} = \text{Baseline Level of Service (not funded by this assessment)} + \text{Enhanced Level of Service (funded by this assessment)}
\]

In this case, the baseline level of service is the current maintenance services provided by RD 784. The enhanced level of service is the ultimate level of service, described below, that will be provided by TRLIA and RD 784 to meet urban levee maintenance standards as well as the repayment of local-share capital funding for the repair and reconstruction of levees to meet urban levee standards.

In addition to the definitions provided by the California Government Code Section 54710 et seq., (the “Code”) the Services are generally described in the following sections.

OPERATIONS AND MAINTENANCE SERVICES

TRLIA and RD 784 have joint maintenance responsibilities for approximately 29 miles of levees, as described in the September 23, 2008 memo “TRLIA O&M Needs for Assessment District” prepared by MBK Engineers and as shown previously in Figure 1. The table below summarizes the lengths of these levees.
TABLE 2 – LEVEES JOINTLY MAINTAINED BY TRLIA AND RD 784

<table>
<thead>
<tr>
<th>Levee</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yuba River</td>
<td>6.13</td>
</tr>
<tr>
<td>Feather River</td>
<td>13.60</td>
</tr>
<tr>
<td>Bear River</td>
<td>3.23</td>
</tr>
<tr>
<td>Western Pacific Interceptor Canal</td>
<td>6.34</td>
</tr>
<tr>
<td>TOTAL</td>
<td>29.31</td>
</tr>
</tbody>
</table>

Existing (baseline) flood control services include:

- Regular inspection of levees for signs of erosion, seepage, rodent infestation, slide, or other conditions that could indicate structural deficiencies.

- Vegetation management, often by burning accumulated vegetative matter in place.

- The repair of levees and foundations with engineered fill, rock rip-rap, and other materials, or other levee repair work, as needed to repair damage, maintain or improve levees and flood control systems.

- Trapping and removal of problematic rodents such as beavers.

The costs to provide these services is $247,500 per year.

The proposed increased flood control Services would materially increase the usefulness, utility, livability, and desirability of properties within the proposed assessment district. The proposed increased flood control Maintenance and Operation Services include:

- Increased inspection of levees for signs of erosion, seepage, rodent infestation, slide, or other conditions that could indicate structural deficiencies. Inspection of additional lands adjacent to levees, such as seepage berms and additional areas cleared of trees and dense vegetation as required by urban levee standards, for indications of under-seepage.

- Surveying for levee settlement, slope slumping, or erosion problems.

- Regular review and maintenance of vegetation including the installation of ground cover as erosion protection and the removal of excess vegetation using mowing, herbicide or other methods when such growth prevents the accurate inspection of facilities or hinders flood flows.
- Increased and more frequent repair of levees and foundations with engineered fill, rock rip-rap, and other materials, or other levee repair work, as needed to repair damage, maintain or improve levees and flood control systems.

- Increased monitoring and maintenance of additional relief wells, monitoring wells, stability berms, seepage berms, and discharge pipes for pumping stations adjacent to levees.

- Tracking or dragging levees as required to allow for mowing or to eliminate rodent dens.

- Trapping and removal of problematic rodents such as beavers, as well as consultation with a pest control advisor (PCA) to develop and implement control programs for other harmful rodents.

- Periodic resurfacing and regrading of gravel patrol roads\(^1\).

- Replacement of equipment at Pump Stations necessary to move runoff over levees.

- Maintenance, repair, replacement or improvement of other flood control systems and improvements.

- Additional electrical costs

**INTERNAL DRAINAGE**

RD 784 has maintenance responsibilities for an internal drainage system that consists of drainage canals, ditches, and pumping stations to pass the internal runoff over the levees. These are important features to prevent interior flooding. Funding for the internal drainage features is not part of the Services described in this Engineer’s Report and is not part of the baseline services described above.

\(^1\) all-weather gravel roads typically found along the top of levees that allow maintenance personnel to inspect the top and sides of levees, patrol the levees during flood events, and access the levees during flood fights when needed
REPAYMENT OF LOCAL-SHARE CAPITAL FUNDING SERVICES

In 2007, TRLIA embarked on a four-phase program to provide 200-year flood protection to South Yuba County. This improvement program includes levee reconstruction, the installation of cutoff walls, and seepage berms. The location of these improvements is shown in the figure below and is the same as the extents of the operation and maintenance Services.
COST AND BUDGET

OPERATIONS AND MAINTENANCE SERVICES COSTS

Estimated operation and maintenance Services costs for the levees jointly maintained by TRLIA and RD 784 were developed by MBK Engineers in consultation with RD 784 and TRLIA. These costs were presented in a September 23, 2008 memo titled "TRLIA O&M Needs for Assessment District". This memo develops an estimated O&M budget using two approaches. The first approach results in a total O&M budget of $996,000 and the second approach results in a total O&M budget of $1,076,000. The memo concludes with a total recommended O&M budget of $1,047,500².

The costs shown in the table below were taken from the detailed budget breakdown of Approach 1 in the MBK memo and were adjusted slightly to match total O&M budget of $1,047,500.

² $800,000 (conclusion of MBK memo) + $247,500 (Table 3 MBK memo) = $1,047,500
TABLE 3 - OPERATIONS AND MAINTENANCE SERVICES COSTS

THREE RIVERS LEVEE IMPROVEMENT AUTHORITY (TRLIA)
Levee and Flood Control Facilities Assessment
Estimate of Operations and Maintenance Costs
Fiscal Year 2009-10

<table>
<thead>
<tr>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations and Maintenance Costs</td>
</tr>
<tr>
<td>Administration, Engineering, Legal</td>
</tr>
<tr>
<td>Operations</td>
</tr>
<tr>
<td>Equipment Replacement Allowance</td>
</tr>
<tr>
<td>Allowance for land acquisition for maintenance purposes</td>
</tr>
<tr>
<td>Emergencies/Contingencies</td>
</tr>
<tr>
<td>Subtotal</td>
</tr>
<tr>
<td>Less Cost of Baseline Services</td>
</tr>
<tr>
<td>Net Operations and Maintenance Services to be Funded by Assessment</td>
</tr>
</tbody>
</table>

CAPITAL SERVICES COSTS

Total capital costs for the TRLIA levee program are approximately $405 million, of which approximately $263 million is provided from non-local funding. The capital costs and a summary of the capital improvements are summarized in the table below.
### Table 4 - Capital Services Costs

<table>
<thead>
<tr>
<th>Phase/Description</th>
<th>Total Costs</th>
<th>Non-Local Funding</th>
<th>Net Local Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuba River Cutoff Wall</td>
<td>$4,000,000</td>
<td>$0</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>Phase 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuba Seepage Berm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olivehurst Detention Basin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WPIC Slurry Wall &amp; Ditch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Bear Levee Reconstruction &amp; Erosion Protection</td>
<td>$46,600,000</td>
<td>$25,700,000</td>
<td>$20,900,000</td>
</tr>
<tr>
<td>Phase 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bear River Setback Levee</td>
<td>$72,300,000</td>
<td>$42,100,000</td>
<td>$30,200,000</td>
</tr>
<tr>
<td>Phase 4[1]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuba River Cutoff Wall from UPRR to Simpson Lane</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feather River Segments 1 &amp; 3 Strengthen-in-Place</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feather River Segment 2 Setback Levee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feather River Degrade Existing Segment 2 Levee</td>
<td>$210,600,000</td>
<td>$135,800,000</td>
<td>$74,800,000</td>
</tr>
<tr>
<td>Phase 4[2]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuba River Simpson Lane to Goldfields</td>
<td>$60,100,000</td>
<td>$57,100,000</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>Overhead and Administrative Expenses</td>
<td>$11,800,000</td>
<td>$2,700,000</td>
<td>$9,100,000</td>
</tr>
<tr>
<td>Totals</td>
<td>$405,400,000</td>
<td>$263,400,000</td>
<td>$142,000,000</td>
</tr>
</tbody>
</table>

[1] Includes work currently underway. Non-local funding includes an estimated $10,085,259 of additional future Prop 1E funding.

[2] Includes work currently being planned.

Source: TRLIA Cash Flow 2008 Scenario 01.27.09 State Agreement prepared by EPS

As development occurs within the proposed assessment district, the newly developed properties' new land use classification will typically result in higher assessments and it is anticipated that assessment revenues will increase. Some of this additional future revenue may be used to repay obligations that were incurred in obtaining the net local funding listed above.

The repayment of obligations for local-share capital funding is a component of the Services funded by this assessment.
TOTAL SERVICES COSTS

For fiscal year 2009-10, the total cost for Services for fiscal year 2009-10 is estimated to be $1,047,500 as shown in the table below.

**TABLE 5 – TOTAL SERVICES COSTS**

<table>
<thead>
<tr>
<th>THREE RIVERS LEVEE IMPROVEMENT AUTHORITY (TRLIA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levee and Flood Control Facilities Assessment</td>
</tr>
<tr>
<td>Estimate of Services Cost</td>
</tr>
<tr>
<td>Fiscal Year 2009-10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations and Maintenance Services Costs</td>
</tr>
<tr>
<td>$1,047,500</td>
</tr>
<tr>
<td>Less Costs of Baseline Services</td>
</tr>
<tr>
<td>($247,500)</td>
</tr>
<tr>
<td>Repayment of Local-Share Capital Funding</td>
</tr>
<tr>
<td>$0</td>
</tr>
<tr>
<td>Total Cost of Services to be Funded by This Assessment</td>
</tr>
<tr>
<td>$800,000</td>
</tr>
</tbody>
</table>

At present, the repayment of local-share capital portion of the services is not funded.

As previously noted, it is anticipated that assessment revenues will increase due to development within the assessment district. The resulting additional incremental revenue may be used for repayment of local-share capital funding, including the issuance of bonds or other debt based on the additional revenue stream.
METHOD OF APPORTIONMENT

METHOD OF APPORTIONMENT

This section includes an explanation of the special benefits to be derived from the Services, the criteria for the expenditure of assessment funds and the methodology used to apportion the total assessments to properties within the proposed Assessment District.

The proposed Assessment District area consists of all Assessor Parcels delineated on the assessment diagram. The Assessment District boundary was determined using MBK Engineers' memo dated January 27, 2009 titled, "Development of TRLIA Assessment District Boundaries" as well as the MBK Technical Memo dated November 3, 2005 titled "Lands Benefited by TRLIA Program" and "Appendix VI Inundation Reduction Analysis of the Alternatives Analysis Report for the Phase 4 Feather River Levee Repair Project" dated December 2006 prepared by David Ford Consulting Engineers/Bookman—Edmonston. These engineering documents were used to narrowly draw the assessment district boundary to include only those parcels that receive special benefit from the levees that would receive increased maintenance Services under this assessment and for which local-share capital funds may potentially be repaid.

The method used for apportioning the assessment is based upon the proportional special benefits from the Services to be derived by the properties in the assessment area over and above general benefits conferred on real property in the assessment area or to the public at large. The apportionment of special benefit is a multi step process: the first step is to identify the types of special benefit arising from the Services, the second step is to estimate the general and special benefits, and the third step is to allocate the assessments to property based on the estimated relative special benefit for each type of property.

DISCUSSION OF BENEFIT

California Government Code Section 54710 et seq. allows agencies which provide flood control services, such as the Three Rivers Levee Improvement Authority, to levy assessments for flood control services. Section 54710 states that:

Any local agency which is authorized by law to provide one or more of the following services may impose a benefit assessment pursuant to this chapter to finance the maintenance and operation costs of these services:
(1) Drainage.
(2) Flood control.
Moreover, Government Code Section 54710.5 stipulates that any local agency which is authorized by law to provide drainage services or flood control services may, in addition to imposing a benefit assessment for the purposes authorized pursuant to Section 54710, impose such an assessment to finance the cost of installation and improvement of facilities.

In addition, California Government Code Section 53750 defines the terms "flood control" as follows:

(l) "Flood control" means any system of public improvements that is intended to protect property from overflow by water.

Therefore, the Services to be provided by the proposed Assessment District fall within the scope of services that may be funded by assessments under the Code.

The assessments can only be levied based on the special benefit to property. This benefit is received by property over and above any general benefits from the proposed Services. Moreover, such benefit is not based on any one property owner's specific use of the Services or a property owner's specific demographic status. With reference to the requirements for assessments, Section 54711 of the California Government Code states:

"The amount of the assessment imposed on any parcel of property shall be related to the benefit to the parcel which will be derived from the provision of the service."

Proposition 218, as codified in Article XIII-D of the California Constitution, has confirmed that assessments must be based on the special benefit to property:

"No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel."

Since assessments are levied on the basis of special benefit, they are not a tax and are not governed by Article XIII-A of the California Constitution.

The special benefit factors below that arise from the Services, when applied to property in the proposed Assessment District, confer special benefits to property and ultimately protect property in the Proposed Assessment District and improve the safety, utility and functionality of such property. These are tangible special benefits to the property in the
proposed assessment area in much the same way that sewer service or water service funded by assessments ultimately enhances the utility of property.

**Flood Control is a Special Benefit to Properties**

The Engineer's Report concludes that flood control is a special benefit directly to the property that is being protected from flooding. The proposed Services, which would be over and above the Baseline Level of Service, have resulted in the levees being reconstructed to a higher standard and will result in the levees being maintained to a higher standard (an urban levee standard), and accordingly will reduce the risk of flooding and the associated damages to property.

The following Benefit Factors Section describes how and why the Services specially benefit properties. This benefit is particular and distinct from its effect on property in general or to the public at large.

**Benefit Factors**

The primary special benefit from the Services is the significantly reduced risk of damage to property from flooding. In addition, this section describes other special benefits conferred to residential, commercial, industrial, institutional and other lots and parcels resulting from the Services that will be provided. These types of special benefit are summarized as follows:

- **Reduced risk of damage to real property inside the narrowly drawn Assessment District boundaries**

Properties in the proposed Assessment District are currently at significant risk for flood damage. The Assessment District boundaries have been narrowly drawn to include all properties with a significant risk of flooding, absent the Services. The proposed Assessments will fund specific new and enhanced services to reduce the likelihood of levee failure and reduce the threat from flooding on property in the Assessment District, thereby significantly reducing the risk of property damage associated with floods. This is a tangible and direct special benefit from the Services to property in the Assessment District that will not be enjoyed by properties outside the Assessment District.

The following citations illustrate the importance of the proposed Services:

_Dams and levees are designed to provide only a certain level of protection and can be overtopped and even fail in large flood events. Also, levees can and do decay over time, and maintenance can become a serious challenge. When levees do_
fail, or are overtopped, they fail catastrophically. The flood damage after a levee failure can be more significant than if the levee was not there.\textsuperscript{3}

The one flood variable that is always expected to be associated with an increase in flood damages is the depth of flooding or flood stage. As the water gets deeper, damages increase.\textsuperscript{4}

During and after Hurricane Katrina, many of those levees and floodwalls were overtopped and several were breached, allowing billions of gallons of water from the Gulf of Mexico, Lake Borgne, and Lake Pontchartrain to flow into New Orleans and flood major portions of the city. As of August 2, 2006, 1,118 people were confirmed dead in Louisiana as a result of Hurricane Katrina. Another 135 people are still missing and presumed dead. Thousands of homes were destroyed. Direct damage to residential and non-residential property is estimated at $21 billion, damage to public infrastructure another $6.7 billion. Nearly half the region’s population has not yet returned after evacuating.\textsuperscript{5}

The flood that followed inundated the town of Olivehurst and 15 square miles of farmland and towns. One man is known dead and two other people are missing, 180 homes and businesses were destroyed and another 480 were damaged, according to the state Office of Emergency Services, which put preliminary damage estimates at $200 million.\textsuperscript{6}

After natural disasters such as hurricanes, tornadoes, and floods, excess moisture and standing water contribute to the growth of mold in homes and other buildings.\textsuperscript{7}

- **Reduced risk of loss of life or harm from flooding on property**

The proposed Assessments will fund Services to reduce the likelihood of levee failure and reduce the threat from flooding specifically for the properties within the defined boundaries of the Assessment District. These Services will reduce the risk of loss of life, injuries, and other public health issues associated with flooding, which, thereby, increases the utility and usefulness of the underlying property.

\textsuperscript{3} FEMA FloodSmart web site (http://www.floodsmart.gov/floodsmart/pages/ask_your_realestate_agent.jsp)


\textsuperscript{6} San Francisco Chronicle, January 12, 1997, Page C.1

\textsuperscript{7} Centers for Disease Control and Prevention, “Protect Yourself From Mold” (http://www.bt.cdc.gov/disasters/mold/protect.asp)
These are tangible special benefits to property in the Assessment District that will not be received by the property outside the Assessment District or the public at large.

Annually, the nation experiences an average of 100 flood-related fatalities.

Every effort should be made to limit contact with flood water due to potentially elevated levels of contamination associated with raw sewage and other hazardous substances.  

Six inches of water will reach the bottom of most passenger cars causing loss of control and possible stalling.

A foot of water will float many vehicles.

Two feet of rushing water can carry away most vehicles including sport utility vehicles (SUV’s) and pick-ups.

• Prevention from designation as Special Flood Hazard Area (SFHA) by FEMA

An adequately funded levee maintenance program is required as part of flood control prevention certification by FEMA. The Assessments will fund Services that will likely result in property in the Assessment District not being mapped in a SFHA flood zone. The proposed Assessment District will provide funding for the maintenance program for the flood control improvements protecting property in the Assessment District, which is part of the accreditation requirement. Without such funding for the Services, properties within the proposed Assessment District would likely be designated as being in a SFHA by FEMA. A SFHA designation would result in limitations on property development and would require property owners with federally-backed mortgages to purchase flood insurance. In addition, flood insurance rates would increase for all property types. Therefore, prevention of limitations on development and increased cost for insurance is another tangible and direct special benefit to property in the Assessment District.

Our findings support the hypothesis that increases in flood risk decrease values for residential properties within the 100-year floodplain. Unlike other studies which conclude that there are

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9 US Environmental Protection Agency, "Response to 2005 Hurricanes – Health Precautions" (http://www.epa.gov/katrinaprecautions.html)
10 FEMA FloodSmart web site (http://www.fema.gov/hazard/flood/ft_during.shtml)
uniform impacts within the floodplain, we find declining effects with reduced risk. Furthermore, there is evidence suggesting that flooding events heighten sensitivity to such risks and raise the property price premium associated with a given level of flood risk\textsuperscript{11}.

**GENERAL BENEFITS**

Proposition 218 requires any local agency proposing to increase or impose a special assessment to "separate the general benefits conferred on a parcel."\textsuperscript{12} The rationale for separating special and general benefits is to ensure that property owners are not charged a benefit assessment in order to pay for general benefits. Thus, a local agency carrying out a project that provides both special and general benefits may levy an assessment to pay for the special benefits, but must acquire separate funding to pay for the general benefits.\textsuperscript{13}

However, flood control operations such as the Services provide only special benefits. Special benefits are benefits that are "peculiar and distinct over and above general benefits located in the district or to the public at large."\textsuperscript{14} Because flood control infrastructure protects particular identifiable parcels (including residents of the parcel and any appurtenant facilities or improvements) from damage due to inundation or force by rising floodwaters, the benefits are provided directly to those parcels, and to none other. By contrast, general benefits provided to the public at large are discussed in terms of general enhanced property values, provision of general public services such as police and fire protection, and recreational opportunities that are available to people regardless of their location.\textsuperscript{15}

The issue of general benefits merits further discussion, however, because flood control services and improvements have an obvious indirect relationship to the provision of general benefits. For example, the Services will protect parks in the Assessment District that may be used by people regardless of whether they own property in the District. But this indirect relationship does not mean that the Services will themselves provide any

\textsuperscript{12} California Constitution Article XII D 4
\textsuperscript{13} Silicon Valley Taxpayers' Association, Inc. v. Santa Clara County Open Space Authority, 44 Cal 4th 431,450 (2008)
\textsuperscript{14} California Constitution Article XII D 2(i)
\textsuperscript{15} Silicon Valley Taxpayers' Association, Inc. v. Santa Clara County Open Space Authority, 44 Cal 4th 450-56
general benefits. Rather, the Services will provide direct special benefits to public parcels (such as parks and police facilities) that may themselves be used in the provision of general benefits.

More to the point, the public at large will be paying for the special benefits provided to benefiting public property, and specially-benefited property owners' assessments will not be used to subsidize general benefits provided to the public at large or to property outside the Assessment District. All property that is specially benefited by the Services will be assessed, including the police, fire, parks and other parcels used in the provision of general benefits. Thus, the general public will pay for a portion of the provision of the flood control Services because the assessed public agencies will use general taxes and other public revenue to pay their Assessments.

In conclusion, the Assessment Engineer finds that the Services are of distinct and direct special benefit to the property within the Assessment District. However, since the determination of special benefits is not well defined by law or industry practice, the Assessment Engineer establishes a minimum 5% requirement of funds and contributions from other sources for flood control Services and improvements within the Assessment District. This requirement for a minimum contribution from sources other than the Assessment will serve to cover any possible general benefits that may subsequently be determined to exist beyond those already paid for with Assessments to be levied on publicly owned parcels to be included in the Assessment District.

The proposed Assessment District's total budget for 2009-10 is $1,047,500. Therefore, TRLIA would need to obtain funding for the Services from sources other than the assessment in the amount of at least $52,365 (x 5%) to cover this requirement for a contribution from other sources.

**Benefit Finding and Zones of Benefit**

**Benefit Finding**

As noted, the assessment funds will be used to reduce the potential of damage and harm from levee failure and flooding throughout the proposed Assessment District. The cost of property damage alone from flooding is many times more than the present value of the annual Assessment rate. Therefore, this Engineer's Report finds that the Services are a

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10 For example, the assessment for a single family residence in the South Zone would be $148.04. Assuming an interest rate of 7%, the present value of perpetual annual payments of $148.04 would be $2,115. Yuba County Assessor's data indicates that the average value of residential parcels assessed within the last 5 years in the South Zone
significant, tangible benefit that should reasonably and rationally confer more special
benefit to properties in the Assessment District than the proposed base assessment rate\textsuperscript{17}.

**ZONES OF BENEFIT**

Four zones of benefit have been established to support the proposed assessment.
Parcels are grouped by zone with similar flood probability and flood depth characteristics
as identified through a review of previously published engineering studies of the South
Yuba County Area and consultation with MBK Engineers. These studies include MBK
Engineers' memo dated January 27, 2009 titled, "Development of TRLIA Assessment
District Boundaries" as well as the MBK Technical Memo dated November 3, 2005, titled
"Lands Benefited By The TRLIA Program" and "Appendix VI Inundation Reduction Analysis
of the Alternatives Analysis Report for the Phase 4 Feather River Levee Repair Project".

The zones of benefit have been designated:

- South
- Central A
- Central B
- East

and are shown in the figure below.
Figure 3 – Zones of Benefit

These zones are used to apply appropriate policies and actions based upon hazard and risk. Accordingly, "Zones of Benefit" corresponding to the flood risk zones are used to assign special benefit by parcel within each Zone.
The zones of benefit are generally consistent with the zones used for the revised Three Rivers Levee Fee Nexus Study dated October 13, 2008 with the "South Zone" for this assessment corresponding to the "Plumas Lake" Zone from the nexus study. The "Central A", "Central B", and "East" zones for this assessment are generally consistent with the "Linda" zone from the nexus study.

**Assessment Apportionment**

The Assessment Engineer determined that the appropriate method of assessment should be based on the type of property, the relative size of the property and the level of potential damage to property. This method is further described below.

**Method of Assessment**

The next step in apportioning assessments is to determine the relative special benefit for each property. This process involves determining the relative benefit received by each property in relation to a "benchmark" property, a single family detached dwelling on one parcel of one acre or less in the South Zone\(^\text{18}\) (one "Single Family Equivalent Benefit Unit" or "SFE"). This SFE methodology is commonly used to distribute assessments in proportion to estimated special benefits. In this Engineer’s Report, all properties are assigned an SFE value, which is each property’s relative benefit in relation to a single family home on one parcel.

The relative benefit to properties from Services that reduce the potential for levee failure and flooding is described by the following equations:

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\(^{18}\) Any of the four zones could be used as the benchmark.
TABLE 6 – EQUATIONS

<table>
<thead>
<tr>
<th>Equation</th>
<th>Results Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Total Benefit = Total Assessment</td>
<td></td>
</tr>
<tr>
<td>2 ( \text{Assessment}<em>{\text{parcel}} = \text{Rate}</em>{\text{zone}} \times \text{Landuse}_{\text{parcel}} )</td>
<td>Table 15</td>
</tr>
<tr>
<td>3 ( \text{Rate}<em>{\text{zone}} = \text{Base Rate} \times \text{Flood Risk Factor}</em>{\text{zone}} \times \text{Flood Damage Factor}_{\text{zone}} )</td>
<td>Table 14</td>
</tr>
<tr>
<td>4 ( \text{Base Rate} = \frac{\sum \text{Cost}}{\sum \text{SFE}_{\text{adjusted}}} )</td>
<td>Table 13</td>
</tr>
</tbody>
</table>

TABLE 7 – FACTORS

<table>
<thead>
<tr>
<th>Factor</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{Rate}_{\text{zone}} )</td>
<td>Table 14, Equation 3</td>
</tr>
<tr>
<td>( \text{Landuse}_{\text{parcel}} )</td>
<td>Table 11</td>
</tr>
<tr>
<td>( \text{BaseRate} )</td>
<td>Table 13, Equation 4</td>
</tr>
<tr>
<td>( \text{Flood Risk Factor}_{\text{zone}} )</td>
<td>Table 8</td>
</tr>
<tr>
<td>( \text{Flood Damage Factor}_{\text{zone}} )</td>
<td>Table 9</td>
</tr>
<tr>
<td>( \sum \text{Cost} )</td>
<td>Table 5</td>
</tr>
<tr>
<td>( \sum \text{SFE}_{\text{adjusted}} )</td>
<td>Table 12</td>
</tr>
</tbody>
</table>

That is, the special benefit conferred to property is a function of flood risk factors, flood damage factors, and landuse factors. The derivation of these factors is described in the sections below.
FLOOD RISK FACTORS

Flood risk factors were derived from Annual Exceedance Probabilities (AEPs) contained in the Inundation Reduction Analysis. The AEPs from this report were calculated for levees at several locations throughout the proposed Assessment District and represent the annual probability at which the flow in the adjacent river or canal will exceed the levee's ability to hold back the flow. Each AEP is based on geotechnical and hydraulic data for that location, called an "index point."

Each Zone of Benefit has multiple index points at which a levee failure would affect the zone. Conversely, a number of index points are located at points where a levee failure would affect more than one Zone of Benefit.

AEPs for each index point were multiplied by the number of miles for the corresponding length of levee. This process assumes that overall, the AEP for the entire length of levee associated with that index point is quite similar to the AEP for the index point effectively estimating the AEP for each mile of levee. Each mile of levee was then allocated to a Zone of Benefit using USGS topographic maps and flow patterns from the Inundation Reduction Analysis. The results were summed for each Zone of Benefit and then normalized so that the largest result was 1.0, thereby producing a Flood Risk Factor.

The resulting relative flood risk factors are shown in the table below.

<table>
<thead>
<tr>
<th>Zone</th>
<th>O&amp;M Flood Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>1.00</td>
</tr>
<tr>
<td>Central A</td>
<td>0.29</td>
</tr>
<tr>
<td>Central B</td>
<td>0.29</td>
</tr>
<tr>
<td>East</td>
<td>0.14</td>
</tr>
</tbody>
</table>

FLOOD DAMAGE FACTORS

Flood damage is generally a function of the depth of flooding, with higher water levels causing greater damage to structures and property. Several sources of depth information were used, including the “Lower Feather River Floodplain Mapping Study” prepared by the
US Army Corps of Engineers (February 2005) and exterior-interior relationships and other data contained in the Inundation Reduction Analysis. Flood depth data from these different sources was superimposed on USGS topographic maps using GIS software where a uniform grid was created and flood depth at each point was calculated. The GIS software was then used to calculate an average depth for each Zone of Benefit.

The relationship between depth and damage was taken from Attachment VI.4 of the Inundation Reduction Analysis which contains a summary of damage factors taken from the US Army Corps of Engineers "Economic Guidance Memorandum." The average flood depths and damage factors are shown in the table below.

**Table 9 – Average Flood Depths and Damage Factors**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Average Flood Depth (feet)</th>
<th>Flood Damage Factor</th>
<th>Normalized Flood Damage Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>5</td>
<td>0.532</td>
<td>1.000</td>
</tr>
<tr>
<td>Central A</td>
<td>4</td>
<td>0.471</td>
<td>0.885</td>
</tr>
<tr>
<td>Central B</td>
<td>2</td>
<td>0.321</td>
<td>0.603</td>
</tr>
<tr>
<td>East</td>
<td>1</td>
<td>0.230</td>
<td>0.432</td>
</tr>
</tbody>
</table>

**Value Factors by Property Type**

Relative value factors have been developed for various property use types, for both land and the structural improvements on land. These estimates are based primarily upon regional real estate values and replacement construction costs for recently constructed or sold properties, derived from County Assessor, real estate sales and other real property transaction data.

In order to adjust for the relative greater damage risk from flooding to structures versus raw land, a weighting factor has been applied to each component, with improvements assigned three times the weight as the underlying land.

Overall relative land use values are determined using the following formula:

\[
\text{Relative Land use Value} = \\
(\text{Raw Land Weighting Factor} \times \text{Average Raw Land Value}) + \\
(\text{Structure Weighting Factor} \times \text{Average Structure Value})
\]
Where

Raw Land Weighting Factor = 1.0
Structure Weighting Factor = 3.0

Table 10 below presents the factors used to calculate the normalized relative land use values by property type and the section below provides an additional textual discussion and summary of the value factors.

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Average Raw Land Value (per acre)</th>
<th>Average Structure Value (per acre)</th>
<th>Weighted Total Value</th>
<th>Normalized Relative Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>$50,000</td>
<td>$200,000</td>
<td>$600,000</td>
<td>1.0000</td>
</tr>
<tr>
<td>Premium for Residential over 1ac</td>
<td>$20,000</td>
<td>$5,000</td>
<td>$25,000</td>
<td>0.0538</td>
</tr>
<tr>
<td>Multi Family</td>
<td>$75,000</td>
<td>$300,000</td>
<td>$375,000</td>
<td>1.5500</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>$75,000</td>
<td>$350,000</td>
<td>$425,000</td>
<td>1.7500</td>
</tr>
<tr>
<td>Office</td>
<td>$100,000</td>
<td>$500,000</td>
<td>$600,000</td>
<td>2.4515</td>
</tr>
<tr>
<td>Institutional</td>
<td>$50,000</td>
<td>$200,000</td>
<td>$250,000</td>
<td>1.0000</td>
</tr>
<tr>
<td>Storage</td>
<td>$30,000</td>
<td>$50,000</td>
<td>$80,000</td>
<td>0.2769</td>
</tr>
<tr>
<td>Agricultural+Rangeland</td>
<td>$10,000</td>
<td>$5,000</td>
<td>$15,000</td>
<td>0.0385</td>
</tr>
<tr>
<td>Golf Course</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$50,000</td>
<td>0.1538</td>
</tr>
<tr>
<td>Vacant</td>
<td>$50,000</td>
<td>$10,000</td>
<td>$60,000</td>
<td>0.1231</td>
</tr>
</tbody>
</table>

\[ c = (1.0 \times a) + (3.0 \times b) \]

**Residential Properties**

All improved residential properties with a single residential dwelling unit on one acre or less are assigned a land use factor of 1.0 SFE. Detached or attached houses, zero-lot line houses, town homes and condominiums are included in this category. Residential properties on parcels that are larger than 1 acre receive additional benefit and are assigned an increased land use factor on a "per acre" basis.

Properties with more than one residential unit are designated as multi-family residential properties and are assigned land use factors on a per acre basis, since there is a relationship between parcel size, structure size and relative benefits. The land use factor for multi-family properties was determined to be 1.500 SFEs per acre.
COMMERCIAL/INDUSTRIAL & OFFICE PROPERTIES
Commercial and industrial properties are assigned a land use factor on a per acre basis, since there is a relationship between parcel size, structure size and relative benefits. The land use factor for commercial and industrial properties was determined to be 1.7308 SFEs per acre. The land use factor for office properties was determined to be 2.4615 SFEs per acre.

VACANT/UNDEVELOPED AND AGRICULTURAL PROPERTIES
The land use factor for vacant properties was determined to be 0.1231 SFEs per parcel. Agricultural land has minimal improvements and few, if any, structures that would be damaged by flooding, and is assigned benefit "per acre." The land use factor for agricultural properties was determined to be 0.0385 SFEs per acre.

PUBLICLY OWNED PARCELS
Publicly owned parcels were individually reviewed and assigned the most appropriate property type. For example, publicly owned office buildings were assigned to the Office property type.

Article XIID, Section 4 of the California Constitution states that publicly owned properties shall not be exempt from assessment unless there is clear and convincing evidence that those properties receive no special benefit.

All public properties that are specially benefited are assessed. Publicly owned property that is used for purposes similar to private residential, commercial, industrial or institutional uses is benefited and assessed at the same rate as such privately owned property.

OTHER PROPERTIES
The land use factor for institutional properties and, for example, churches, is determined to be assessed at 1.0 per parcel. The land use factor for storage properties was determined to be 0.2769 SFEs per acre.

SUMMARY OF BENEFITS FOR EACH PROPERTY TYPE
Land use factors for each property type are summarized in the table below.
TABLE 11 – LAND USE FACTORS FOR PROPERTY TYPES

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Landuse Factor (SFEs)</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>1.0000 per parcel</td>
<td></td>
</tr>
<tr>
<td>Multi-Family</td>
<td>1.5000 per acre</td>
<td></td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>1.7308 per acre</td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>2.4615 per acre</td>
<td></td>
</tr>
<tr>
<td>Institutional</td>
<td>1.0000 per parcel</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>0.2769 per acre</td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>0.0385 per acre</td>
<td></td>
</tr>
<tr>
<td>Range Land</td>
<td>0.0385 per acre</td>
<td></td>
</tr>
<tr>
<td>Vacant</td>
<td>0.1231 per parcel</td>
<td></td>
</tr>
</tbody>
</table>

RATES

Assessment rates are determined by dividing the total benefit by the number of Single Family Equivalents (SFEs) in order to determine an assessment rate per SFE. In order to account for the differing flood risks and flood damages for each of the four zones of benefit, an “adjusted” SFE total is used for this calculation. The Adjusted SFE total is calculated by multiplying the total SFEs for each zone by the flood risk factor and the flood damage factor for that particular zone.

The calculation of adjusted SFEs is shown in the table below.

TABLE 12 – ADJUSTED SFEs

<table>
<thead>
<tr>
<th>Zone</th>
<th>SFEs</th>
<th>Flood Risk Factor</th>
<th>Flood Damage Factor</th>
<th>Adjusted SFEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>3,982.11</td>
<td>1.00</td>
<td>1.00</td>
<td>3,982.11</td>
</tr>
<tr>
<td>Central A</td>
<td>2,918.84</td>
<td>0.29</td>
<td>0.885</td>
<td>749.12</td>
</tr>
<tr>
<td>Central B</td>
<td>5,183.27</td>
<td>0.29</td>
<td>0.603</td>
<td>906.40</td>
</tr>
<tr>
<td>East</td>
<td>964.92</td>
<td>0.14</td>
<td>0.432</td>
<td>58.36</td>
</tr>
<tr>
<td>Total</td>
<td>5,695.99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The calculation of a base assessment rate is shown in the table below. This base rate is then multiplied by the appropriate flood risk, the flood damage factor and, if applicable, a
credit for the existing RD 784 assessment is added to derive assessment rates for each zone.

**TABLE 13 – CALCULATION OF O&M BASE RATE**

<table>
<thead>
<tr>
<th>Services to be Funded by Assessment</th>
<th>$800,000.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost to Provide Baseline Level of Service</td>
<td>247,500.00</td>
</tr>
<tr>
<td><strong>Total Services Cost</strong>(^1)</td>
<td><strong>$1,047,500.00</strong></td>
</tr>
<tr>
<td><strong>Total Adjusted Single Family Equivalents (SFEs)(^2)</strong></td>
<td><strong>5,695.99</strong></td>
</tr>
<tr>
<td><strong>Total Assessment per SFE for Services (Base Rate)</strong></td>
<td><strong>$183.90</strong></td>
</tr>
</tbody>
</table>

\(^1\) from Table 3, Operations and Maintenance Costs

\(^2\) from Table 10, Adjusted SFEs

**ASSESSMENT RATE SUMMARY**

For each of the Zones of Benefit, the base rates were multiplied by the Relative Benefit Unit Factors and a credit for the existing RD 784 assessment was added where appropriate to obtain the Total Assessment Rate for each Zone of Benefit. These Total Assessment Rates are summarized in the table below.

Properties within two of the zones of benefit, South and Central A, pay an existing assessment to RD 784. A portion of this existing assessment covers maintenance of levees that benefit the proposed Assessment District. The September 23, 2008 MBK budget memo indicates that $247,500 is currently spent on levee maintenance. Therefore, an adjustment of $35.86 per SFE\(^\text{19}\) is credited to the South and Central A rates, as shown in the table below.

\(^\text{19}\) $247,500 divided by 6,900.95 SFEs in the South and Central A zones = $35.86/SFE
TABLE 14 – ZONE RATES

<table>
<thead>
<tr>
<th>Zone</th>
<th>Flood Risk</th>
<th>Flood Damage</th>
<th>Benefit (S/SFE)</th>
<th>RD 784 Credit (S/SFE)</th>
<th>Zone Rate (S/SFE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>1.00</td>
<td>1.00</td>
<td>$183.90</td>
<td>($35.86)</td>
<td>$148.04</td>
</tr>
<tr>
<td>Central A</td>
<td>0.29</td>
<td>0.89</td>
<td>$47.20</td>
<td>($35.86)</td>
<td>$11.33</td>
</tr>
<tr>
<td>Central B</td>
<td>0.29</td>
<td>0.60</td>
<td>$32.16</td>
<td></td>
<td>$32.16</td>
</tr>
<tr>
<td>East</td>
<td>0.14</td>
<td>0.43</td>
<td>$11.12</td>
<td></td>
<td>$11.12</td>
</tr>
</tbody>
</table>

The rates for each property type and zone are summarized in the table below.

TABLE 15 – ASSESSMENT RATES BY PROPERTY TYPE AND ZONE

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Landuse Factor</th>
<th>South Zone</th>
<th>Central A</th>
<th>Central B</th>
<th>East</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>1.0000</td>
<td>$148.04</td>
<td>$11.33</td>
<td>$32.16</td>
<td>$11.12</td>
<td>per parcel</td>
</tr>
<tr>
<td>Multi-Family</td>
<td>1.5000</td>
<td>$222.06</td>
<td>$17.00</td>
<td>$48.24</td>
<td>$16.68</td>
<td>per acre</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>1.7308</td>
<td>$256.22</td>
<td>$19.62</td>
<td>$55.66</td>
<td>$19.25</td>
<td>per acre</td>
</tr>
<tr>
<td>Office</td>
<td>2.4615</td>
<td>$384.39</td>
<td>$27.90</td>
<td>$79.16</td>
<td>$27.38</td>
<td>per acre</td>
</tr>
<tr>
<td>Institutional</td>
<td>1.0000</td>
<td>$148.04</td>
<td>$11.33</td>
<td>$32.16</td>
<td>$11.12</td>
<td>per parcel</td>
</tr>
<tr>
<td>Storage</td>
<td>0.2769</td>
<td>$40.99</td>
<td>$3.14</td>
<td>$8.90</td>
<td>$3.06</td>
<td>per acre</td>
</tr>
<tr>
<td>Agricultural</td>
<td>0.0385</td>
<td>$5.70</td>
<td>$0.44</td>
<td>$1.24</td>
<td>$0.43</td>
<td>per acre</td>
</tr>
<tr>
<td>Range Land</td>
<td>0.0385</td>
<td>$5.70</td>
<td>$0.44</td>
<td>$1.24</td>
<td>$0.43</td>
<td>per acre</td>
</tr>
<tr>
<td>Vacant</td>
<td>0.1231</td>
<td>$18.22</td>
<td>$1.40</td>
<td>$3.96</td>
<td>$1.37</td>
<td>per parcel</td>
</tr>
</tbody>
</table>

EXAMPLE RATES FOR SELECTED PROPERTY TYPES

Example rates for selected property types are shown in the table below.
TABLE 16 – EXAMPLE RATES FOR SELECTED PROPERTY TYPES

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Annual Assessment ($ per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zone</td>
</tr>
<tr>
<td></td>
<td>South</td>
</tr>
<tr>
<td>Existing Single Family Residence on 1 acre or less</td>
<td>$148.04</td>
</tr>
<tr>
<td>5 acre ranchette</td>
<td>$176.53</td>
</tr>
<tr>
<td>100 acre farm</td>
<td>$569.94</td>
</tr>
<tr>
<td>Business on a 1/4 acre parcel</td>
<td>$64.06</td>
</tr>
</tbody>
</table>

APPEALS OF ASSESSMENTS LEVIED TO PROPERTY

Any property owner who feels that the assessment levied on their property is in error as a result of incorrect information being used to apply the foregoing method of assessment may file a written appeal with the Executive Director of the Three Rivers Levee Improvement Authority or his or her designee. Any such appeal is limited to correction of an assessment during the then current fiscal year. Upon the filing of any such appeal, the Executive Director or his or her designee will promptly review the appeal and any information provided by the property owner. If the Executive Director or his or her designee finds that the assessment should be modified, the appropriate changes shall be made to the assessment roll. If any such changes are approved after the assessment roll has been filed with the County for collection, the Executive Director or his or her designee is authorized to refund to the property owner the amount of any approved reduction. Any dispute over the decision of the Executive Director or his or her designee shall be referred to the Board of Directors of the Three Rivers Levee Improvement Authority and the decision of the Board shall be final.

DURATION OF THE ASSESSMENT

If approved by property owners in an assessment ballot proceeding conducted pursuant to the Article and Government Code Section 53750 et seq., the assessments can be levied annually commencing with fiscal year 2009-10. Technically, the duration of the assessment is one year, but it may be renewed each year, without another assessment ballot proceeding, by a vote of the Three Rivers Levee Improvement Authority Board of Directors. The assessment cannot be increased in future years without approval from property owners in another assessment ballot proceeding, except for an annual adjustment.
tied to the change in the U.S. Department of Labor, Bureau of Labor Statistics Consumer Price Index for the San Francisco Bay Area, not to exceed 4% per year.

CRITERIA AND POLICIES

This sub-section describes the criteria that shall govern the expenditure of assessment funds and ensures equal levels of benefit for properties of similar type. The criteria established in this Report, as finally confirmed, cannot be substantially modified; however, the Board may adopt additional criteria to further clarify certain criteria or policies established in this Report or to establish additional criteria or policies that do not conflict with this Report.

ASSESSMENT FUNDS MUST BE EXPENDED WITHIN THE PROPOSED ASSESSMENT DISTRICT

The net available assessment funds, after incidental, administrative and other costs, shall be expended exclusively for Services provided to levees that protect property within the boundaries of the proposed Assessment District.

RESERVE FUND

The Services budget contains a provision for a reserve fund. Such reserve funds are typically used in Reclamation Districts as costs tend to fluctuate from year to year. The balance of the reserve fund should not exceed one year of Services costs for operations and maintenance. This maximum may be adjusted in future years by a resolution of the TRLIA Board of Directors.

EXISTING FUNDS

Levee maintenance and flood control services currently providing the Baseline Services are funded with approximately $247,500 from the existing annual RD 784 assessment. The intent of the Assessment is that this existing assessment revenue will be continued by RD 784 to fund Baseline Services and the proposed Assessment will pay for the additional Services identified above (including repayment of the local-share capital funding activities.

SENIOR AND LOW-INCOME EXEMPTIONS

The Government Code does not provide for exemptions to assessments for senior citizen or low-income property owners. If such a program were desired, TRLIA or another agency could pay this assessment on behalf of the exempted property owners with funds collected from one or more non-assessment sources.
WHEREAS, the Board of Directors of the Three Rivers Levee Improvement Authority is proceeding with the proposed formation of the Levee and Flood Control Facilities Assessment District under the California Codes Government Code sections 54710 et seq. (the "Code") and Article XlllD of the California Constitution (the "Article"), to proceed with the proposed levy of assessments;

WHEREAS, the undersigned Engineer of Work has prepared and filed a report presenting an estimate of costs, a diagram for the Assessment District and an assessment of the estimated costs of the Services upon all assessable parcels within the Assessment District;

NOW, THEREFORE, the undersigned, by virtue of the power vested in me under said Code and Article and the order of said Board of Directors, hereby make the following assessment to cover the portion of the estimated cost of said Services, and the costs and expenses incidental thereto to be paid by the Assessment District.

The amount to be paid for said Services and the expense incidental thereto, to be paid by the Assessment District for the fiscal year 2009-10 is generally as follows:

**SUMMARY COST ESTIMATE**

<table>
<thead>
<tr>
<th>Services Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>$302,900</td>
</tr>
<tr>
<td>Operations &amp; Maintenance</td>
<td>$378,600</td>
</tr>
<tr>
<td>Equipment Replacement Allowance</td>
<td>$50,500</td>
</tr>
<tr>
<td>Allowance for land acquisition for maintenance purposes</td>
<td>$105,200</td>
</tr>
<tr>
<td>Emergencies/Contingencies</td>
<td>$210,300</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1,047,500</td>
</tr>
<tr>
<td>Less Funding for Baseline Services</td>
<td>($247,500)</td>
</tr>
<tr>
<td>Net Amount to be Assessed</td>
<td>$800,000</td>
</tr>
</tbody>
</table>
An Assessment Diagram is hereto attached and made a part hereof showing the exterior boundaries of said Assessment District. The distinctive number of each parcel or lot of land in said Assessment district is its Assessor Parcel Number appearing on the Assessment Roll.

I do hereby assess and apportion said net amount of the cost and expenses of said Services, including the costs and expenses incident thereto, upon the parcels and lots of land within said Assessment District, in accordance with the special benefits to be received by each parcel or lot, from the Services, and more particularly set forth in the Cost Estimate and Method of Assessment hereto attached and by reference made a part hereof.

The assessment is subject to an annual adjustment tied to the annual change in the US Department of Labor Consumer Price Index (CPI-U) for the San Francisco Bay Area as of December of each succeeding year the (“CPI”), with the maximum annual adjustment not to exceed 4%. Any change in the CPI in excess of 4% shall be cumulatively reserved as the “Unused CPI” and shall be used to increase the maximum authorized assessment rate in years in which the CPI is less than 4%. The maximum authorized assessment rate is equal to the maximum assessment rate in the first fiscal year the assessment was levied adjusted annually by the minimum of 1) 4% or 2) the change in the CPI plus any Unused CPI as described above.

If property owners, in an assessment ballot proceeding, approve the initial fiscal year benefit assessment for the special benefits to their property including the CPI adjustment schedule, the assessment may be levied annually and may be adjusted by up to the maximum annual CPI adjustment without any additional assessment ballot proceeding. In the event that in future years the assessments are levied at a rate less than the maximum authorized assessment rate, the assessment rate in a subsequent year may be increased up to the maximum authorized assessment rate without any additional assessment ballot proceeding.

Each parcel or lot of land is described in the Assessment Roll by reference to its parcel number as shown on the Assessor's Maps of the County of Yuba for the fiscal year 2009-10. For a more particular description of said property, reference is hereby made to the deeds and maps on file and of record in the office of the County Recorder of Yuba County.

I hereby place opposite the Assessor Parcel Number for each parcel or lot within the Assessment Roll, the amount of the assessment for the fiscal year 2009-10 for each parcel or lot of land within the said Assessment District.20

---

20 Each parcel has a calculated assessment based on the estimated level of special benefit to the property.
The Assessment District includes all properties within the proposed boundaries of the Levee and Flood Control Facilities Assessment. The boundaries of the Assessment District are displayed on the following Assessment Diagram. The lines and dimensions of each lot or parcel within the Assessment District are those lines and dimensions as shown on the maps of the Assessor of the County of Yuba, for fiscal year 2009-10, and are incorporated herein by reference, and made a part of this Diagram and this Report.
APPENDIX A – ASSESSMENT ROLL, FY 2009-10

The Assessment Roll is made part of this report and is available for public inspection during normal office hours. Each lot or parcel listed on the Assessment Roll is shown and illustrated on the latest County Assessor records and these records are, by reference, made part of this report. There records shall govern for all details concerning the description of the lots of parcels.
Proposed Benefit Assessment District Overview

Three Rivers Levee Improvement Authority (TRLIA)

March 3, 2009
$405 Million in Levee Improvements

- State owned levees maintained by Reclamation District (RD) 784
- 37 miles of levees maintained by RD 784
- 29 of the 37 miles protect urban areas within South Yuba County
- TRLIA to improve and certify 29 miles of urban levees
  - 11 miles completed and certified
  - 7 miles improved in 2008
  - 6 miles started in 2008; complete 2009
  - 5 miles to start in 2009

- Goals: Provide 100-yr flood protection for FEMA & provide levees built to withstand 200-yr flood event
FEMA Remapping Status

- Yuba County is FEMA focal point

- Current maps outdated; updates slated for adoption in fall 2009

- Adoption of preliminary maps are affected by TRLIA’s progress
  - If finalized as currently proposed, then land use options (e.g. building) and flood insurance rates will be impacted (as much as $2,200/year increase for single-family residence)
  - If levees are accredited by FEMA, then property owners will remain eligible for low-cost flood insurance (approx. $350/year)
Strategy: Complete and Certify levees before FEMA Preliminary Maps adopted

Soil Bentonite Clay Foundation
Cut-off Wall – depth approx. 70 ft.

Waterside Blanket construction
Purpose and Need for the Formation of Assessment District

- Aggressive repair and maintenance program will reduce the risk of flooding
- Funding for levee operations & maintenance is required for levee accreditation by the FEMA
- RD 784 revenues are not adequate to achieve urban (community greater than 10,000 residents) levee requirements for O&M
- Assessment District will generate revenues to maintain high level of urban flood protection
- Depending upon local growth - repayment of Levee Local-Share Capital Expenses in the future
- Without sufficient funding the state could intercede and create a Maintenance Assessment Area – higher rates
Increased Maintenance Requirements

- Increased manpower and higher technical skills
- More frequent inspections
- Improved levee maintenance equipment
- Avoid burning levee vegetation
- Funding to acquire and maintain levee flood fighting and maintenance easements
- Funding being available to make immediate repairs when needed

Total needed for maintenance on improved levees: $800,000
Why TRLIA?

- RD784 does not receive revenues from all properties being protected by levees
- TRLIA has authority to create Assessment District so that all areas receiving benefit provide revenues
- TRLIA has signed numerous Federal and State agreements and permits that require TRLIA to ensure levee maintenance is performed on TRLIA improved levees
- TRLIA will ensure assessment revenues are used for improved levee maintenance
Review of Draft Engineer’s Report

Presented by: Thomas Brightbill
Assessment Engineer, SCI
Benefit Assessment Requirements

- Assessment must be based on benefit to the property
- Voted on by property owners
- Votes weighted by proposed assessment
- Approval requires 50% of returned ballots, weighted by proposed assessment
- Procedure and most requirements governed by Proposition 218
- Benefit calculation and assessment methodology described in an Engineer’s Report
Assessment Area

- Proposed assessment area based on hydraulic analysis by MBK, Army Corps of Engineers, others
Zone Benefit Factors

<table>
<thead>
<tr>
<th>Zone</th>
<th>Flood Risk Factor</th>
<th>Flood Damage Factor</th>
<th>Total Benefit Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>1.00</td>
<td>1.000</td>
<td>1.00</td>
</tr>
<tr>
<td>Central A</td>
<td>0.29</td>
<td>0.885</td>
<td>0.26</td>
</tr>
<tr>
<td>Central B</td>
<td>0.29</td>
<td>0.603</td>
<td>0.17</td>
</tr>
<tr>
<td>East</td>
<td>0.14</td>
<td>0.432</td>
<td>0.06</td>
</tr>
</tbody>
</table>

- Benefit Determined by:
  - Risk of Flooding
  - Expected Damage
- Areas grouped into zones based on similar flood risk and flood damage characteristics
Property Type Factors

- Way to equate different property types
- Factors based on relative benefit (expected damage)

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Property Type Factor</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>1.0000</td>
<td>per parcel</td>
</tr>
<tr>
<td>Multi-Family</td>
<td>1.5000</td>
<td>per acre</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>1.7308</td>
<td>per acre</td>
</tr>
<tr>
<td>Office</td>
<td>2.4615</td>
<td>per acre</td>
</tr>
<tr>
<td>Institutional</td>
<td>1.0000</td>
<td>per parcel</td>
</tr>
<tr>
<td>Storage</td>
<td>0.2769</td>
<td>per acre</td>
</tr>
<tr>
<td>Agricultural</td>
<td>0.0385</td>
<td>per acre</td>
</tr>
<tr>
<td>RangeLand</td>
<td>0.0385</td>
<td>per acre</td>
</tr>
</tbody>
</table>

SFE = Single Family Equivalent
Rate Calculation

Basic calculation:

\[
\frac{\text{Budget (\$)}}{\text{Total Number of Single Family Equivalents (SFEs)}} = \text{Base Rate (\$/SFE)}
\]
# Rates

- Need to account for:
  - Different property types (using property type factors)
  - Different benefit for each zone (using risk and damage factors)
  - Rate adjustment for portion of existing RD 784 assessment

<table>
<thead>
<tr>
<th>Zone</th>
<th>SFEs</th>
<th>Flood Risk Factor</th>
<th>Flood Damage Factor</th>
<th>Raw Rate for RD 784 ($/SFE)</th>
<th>Adjustment ($/SFE)</th>
<th>Rate ($/SFE)</th>
<th>Revenue ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>3,982.11</td>
<td>1.00</td>
<td>1.00</td>
<td>$183.90</td>
<td>($35.86)</td>
<td>$148.04</td>
<td>$589,498.71</td>
</tr>
<tr>
<td>Central A</td>
<td>2,918.84</td>
<td>0.29</td>
<td>0.885</td>
<td>$47.20</td>
<td>($35.86)</td>
<td>$11.33</td>
<td>$33,081.16</td>
</tr>
<tr>
<td>Central B</td>
<td>5,183.27</td>
<td>0.29</td>
<td>0.603</td>
<td>$32.16</td>
<td>$32.16</td>
<td>$32.16</td>
<td>$166,687.94</td>
</tr>
<tr>
<td>East</td>
<td>964.92</td>
<td>0.14</td>
<td>0.432</td>
<td>$11.12</td>
<td></td>
<td>$11.12</td>
<td>$10,732.18</td>
</tr>
</tbody>
</table>

- Raw Rate = Base Rate multiplied by the Flood Risk and Flood Damage Factors for each zone
- For example: $183.90 \times 0.29 \times 0.885 = $47.20 (Central A Zone)
# Rates for Various Property Types

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Landuse Factor</th>
<th>South Zone</th>
<th>Central A</th>
<th>Central B</th>
<th>East</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>1.0000</td>
<td>$148.04</td>
<td>$11.33</td>
<td>$32.16</td>
<td>$11.12 per parcel</td>
<td></td>
</tr>
<tr>
<td>Multi-Family</td>
<td>1.5000</td>
<td>$222.06</td>
<td>$17.00</td>
<td>$48.24</td>
<td>$16.68 per acre</td>
<td></td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>1.7308</td>
<td>$256.22</td>
<td>$19.62</td>
<td>$55.66</td>
<td>$19.25 per acre</td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>2.4615</td>
<td>$364.39</td>
<td>$27.90</td>
<td>$79.16</td>
<td>$27.38 per acre</td>
<td></td>
</tr>
<tr>
<td>Institutional</td>
<td>1.0000</td>
<td>$148.04</td>
<td>$11.33</td>
<td>$32.16</td>
<td>$11.12 per parcel</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>0.2769</td>
<td>$40.99</td>
<td>$3.14</td>
<td>$8.90</td>
<td>$3.08 per acre</td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>0.0385</td>
<td>$5.70</td>
<td>$0.44</td>
<td>$1.24</td>
<td>$0.43 per acre</td>
<td></td>
</tr>
<tr>
<td>Range Land</td>
<td>0.0385</td>
<td>$5.70</td>
<td>$0.44</td>
<td>$1.24</td>
<td>$0.43 per acre</td>
<td></td>
</tr>
<tr>
<td>Vacant</td>
<td>0.1231</td>
<td>$18.22</td>
<td>$1.40</td>
<td>$3.96</td>
<td>$1.37 per parcel</td>
<td></td>
</tr>
</tbody>
</table>
Annual Process

- Maintenance Budget is updated each year

- Proposed assessment includes an annual cost of living increase (up to 4% per year)

- TRLIA Board
  - reviews annual budget, rates, and updates to Engineer’s Report
  - takes public comment
Balloting Process and Schedule

❖ Board Resolution
  • Intent to levy assessment
  • Orders mailing of ballots
  • Schedules Public Hearing

❖ Public Hearing
  • Minimum 45 days from mailing ballots

❖ Tabulation of Ballots
  • Immediately following public hearing

❖ Final Board Resolution
Tentative Schedule

- Board Resolution            March 3
- Ballots Mailed              March 24
- Public Hearing              May 12
- Tabulation of Ballots       May 13 - 29
- Final Board Resolution      June 2
Wrap Up

- Assessment most equitable way to secure revenues for levee O&M
- Required for FEMA Accreditation
- Allows lower flood insurance rates and continued development
- **Yearly** assessment is based on benefit - avoids state interceding
- Potentially allows for local bond debt repayment should growth occur
- TRLIA has authority