# VENTURA COUNTY
# WATERSHED PROTECTION DISTRICT

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December 4, 2007

Board of Supervisors
Ventura County Watershed Protection District
800 South Victoria Avenue
Ventura, CA 93009

**Subject: Watershed Protection District's Submittal of Provisionally Accredited Levee (PAL) Agreement Letters Pursuant to Federal Levee Certification Program Requirements - Informational Presentation**

**Recommendation(s):**

1. Hear a presentation from Watershed Protection District (District) staff confirming the submittal of Provisionally Accredited Levee (PAL) Agreement Letters to the Federal Emergency Management Agency (FEMA) on November 27, 2007 for seventeen District owned and operated levees in Ventura County evidencing local compliance with applicable provisions of Title 44, Chapter 1, Section 65.10 of the Code of Federal Regulations (44 CFR 65.10); and

2. Receive and file the attached report.

**Fiscal/Mandates Impact:**
The Fiscal Year 2007-08 adopted budgets for Zone Nos. 1 through 3 (there are no levees proposed for certification in Zone 4) contain sufficient appropriations to cover the District's costs incurred during the preparation and submittal of the Provisionally Accredited Levee (PAL) Agreement Letters to FEMA pursuant to the federal regulatory requirements of 44 CFR 65.10. Additionally, sufficient appropriations exist in the District's adopted budgets to cover costs yet to be incurred during this fiscal year. Such costs include but are not limited to the selection of a qualified engineering consultant(s) required to perform an independent certification that the District's seventeen levees meet and continue to meet the minimum design, operation, and maintenance standards of 44 CFR 65.10 of the National Flood Insurance Program (NFIP). Funds required to complete the detailed field inspection; geotechnical engineering and structural integrity verifications by the independent engineering consultant(s) selected will be programmed in the Fiscal Year 2008-09 and 2009-10 District Zone Budgets. There are no impacts on other departments associated with the submission of these PAL Agreement Letters to FEMA.

**Discussion:**

**MEETING THE CRITERIA FOR ACCREDITING LEVEES ON FLOOD MAPS**

The Federal Emergency Management Agency (FEMA) is currently in the process of producing a Flood Insurance Study (FIS) report and Digital Flood Insurance Rate Maps (DFIRMs) for the County of Ventura. This effort is being undertaken as part of FEMA's National Flood Map Modernization Program designed to update the existing Flood Insurance Rate Maps (FIRMs), many of which were produced in the 1970's, 80's, and early 90's.

Nationwide, FEMA reports that nearly *sixty percent (i.e. 56%) of effective FIRMs are at least 15 years old.* By way of comparison and contrast, in Ventura County, *79% of effective FIRMS are more than 20 years old, 87% are more than 15 years old, and 100% are more than 10 years old.*

Flood hazard information presented on the existing effective FIRM maps and in the FIS reports prepared at that time was based, in some areas, on flood protection being provided by levees. Based on the information available and on the mapping standards of the National Flood Insurance Program (NFIP) in place at that time, FEMA accredited then-known levees or levee-like situations with providing protection from the base level flood. The base level flood is defined by FEMA as the flood that has a one-percent chance of being equaled or exceeded in a given year.

In order for FEMA to continue to accredit levees with providing base flood protection, the levees *must* meet and *continue* to meet the *minimum design, operation, and maintenance standards* of 44 CFR 65.10 of the NFIP regulations. (See Attachment No. 1 - Copy of FEMA's Fact Sheet entitled: *"Requirements of 44 CFR 65.10 - Mapping of Areas Protected by Levee Systems"*).

In accordance with those Federal regulatory criteria, it is the responsibility of the community or other party seeking recognition of a levee system to provide FEMA with technically adequate documentation confirming that the levee systems it owns and operates meets and continues to meet the minimum standards referenced above. Specifically, the design and construction data provided for a levee system *must be independently certified by either a registered professional engineer or a Federal Agency responsible for the design of the levee (e.g. United States Army Corps of Engineers).*

FEMA has incorporated into the Flood Map Modernization Program schedule a levee certification process that provides entities such as the District, which own and operate levee systems, with a two-year block of time to collect and submit the data necessary to certify the levees while allowing the DFIRM mapping update to continue. (See Attachment No. 2 – Copy of FEMA's Fact Sheet entitled: "*Meeting the Criteria for Accrediting Levees on Flood Maps – How-to-Guide for Flood Plain Managers and Engineers*").

During this two-year time frame, the levees in question will receive a designation as a Provisionally Accredited Levee (PAL). In addition, FEMA has identified another scenario specific to levees having known maintenance deficiencies. This scenario allows the District an additional one-year period of time to correct the known maintenance deficiency prior to requesting *either* a PAL designation *or* submitting a complete 44 CFR 65.10 certification documentation package for such a levee(s).

To take advantage of these opportunities, *the District, joined by affected community representatives, must sign and return to the FEMA Region IX office* a letter agreement for each levee for which the District is seeking either the PAL designation or the one-year deficiency correction period followed by the PAL designation. Such PAL Agreement letters had to be received by FEMA *no later than November 30, 2007* in order to be effective.

**EVOLUTION AND INVENTORY OF SEVENTEEN DISTRICT OWNED AND OPERATED LEVEES INCLUDED IN PAL AND 1 YEAR MAINTENANCE CORRECTION PERIOD LETTERS**

In an August 31, 2007 letter to the District, FEMA identified potentially sixty (60) levees or levee-like situations in Ventura County which FEMA had some reason to believe *might* provide base-level flood protection to the areas landward of such levees or levee-like situations. FEMA's August 31st letter provided the District with the opportunity to seek PAL designation status for some or all of those sixty levees or levee-like situations while the District attempts to certify them in accordance with 44 CFR 65.10.

Subsequent to receiving FEMA's August 31st letter, the District began the process of seeking additional clarification from FEMA regarding the sixty levee or levee-like situations identified in that letter. Based on its own Quality Control/Quality Assurance (QA/QC) efforts, the District identified a total of thirty-four (34) levees or levee-like situations or DFIRM depictions of levees on FEMA's list for which the District disputes the current mapping depictions. Four (4) of the levee entries were duplicates, leaving thirty (30) remaining map depiction entries requiring additional clarification from FEMA.

For the record, it is important to note that the District consulted its historical records of levee photos, facility inventories, construction as-built drawings, and in some cases, conducted site inspections to determine the existence of each of these thirty levee-like situations. To date, *nothing* in the District's quality control/quality assurance efforts in this regard show base flood protection being provided by the above-referenced remaining thirty levees or levee-like situations depicted by FEMA. And in some cases, *there is no physical evidence whatsoever of any levee being present.* The latest information received from FEMA indicates *general concurrence* with the District's quality assurance-quality control comments confirming that none of the thirty levee-like situations originally identified in their August 31st letter meet the minimum certification standards required in 44 CFR 65.10. Accordingly, there is no regulatory basis for submitting documentation packages for any of those thirty levee-like situations.

Given the exigencies of time, by necessity the District concentrated its certification documentation package preparation efforts on the remaining twenty-six (26) levees previously identified by the District and annotated in the FEMA list. Ultimately, after carefully reviewing the minimum design, operation, and maintenance standards found in 44 CFR 65.10, and FEMA procedural guidance memos, the District concluded that nine (9) of those remaining District levees *did not meet FEMA's minimum standards required for further certification processing.* Accordingly, *we did not submit PAL Agreement Letters to FEMA for those nine levees, as well.*

However, the District did prepare and submit Two-Year PAL and One-Year Maintenance Correction Period Agreement letters to FEMA for a total of *seventeen* (17) District-owned and operated levees in Ventura County. (*See Attachment No. 3 - List Entitled "VCWPD District Levees Designated for PAL Agreement Letters and Certification Paths."*)

Fourteen (14) of those were straight Two-Year PAL Agreement, and three (3) were One-Year Maintenance Correction Period Agreement Letters. (See Attachment No. 4 - *Copy of Generic Two-Year PAL and One-Year Agreement Form Letters*).

Finally, three (3) of the original sixty levees or levee-like situations contained in FEMA's August 21st letter list are subject to the jurisdiction of cities (two in Fillmore and one in Moorpark). Accordingly, pursuant to 44 CFR 65.10, certification documentation responsibility for those three levees rests with those cities.

**PROVISIONALLY ACCREDITED LEVEE AGREEMENT LETTER FORMS**

FEMA's August 31st letter provided the District with a 90-day period to respond to requests for PAL designations. The District *submitted* signed Two-Year PAL and One-Year Maintenance Correction Period Agreement Letters for these seventeen levees to FEMA on November 27, 2007.

By endorsing the enclosed PAL Agreement form letter, the District stated its commitment to provide FEMA all of the documentation necessary to confirm technical certification that the affected levees met and continue to meet the minimum requirements established in 44 CFR 65.10 evidencing ongoing protection by these levees from a base-year flood event.

FEMA also required a counter signature on the PAL Agreement letter forms from an authorized representative of communities (i.e. cities and/or county) affected by the District's levee. Countersignatures from those community representatives acknowledge that they are *aware* of the District's efforts to seek a PAL designation for such levees. The District's final signed letters submitted to FEMA on November 27, 2007 for each PAL-designated levee contained the requisite countersignatures from either the County CEO (or his designee) and/or City Manager (or his designee) of the affected community, as applicable.

Beginning September 1, 2007, and continuing for a period of two years from that date while the PAL letter agreement is in effect, FEMA will proceed with the FIS and mapping efforts and, per Procedural Memorandum 43, will issue either *preliminary,* or in some cases, *effective* DFIRM maps. For a PAL designated levee, the area landward will be shown as Zone X, and the levee annotated with a note indicating it's PAL designation status.

This FEMA mapping depiction will remain until *either* the submittal by the District of full certification package documenting compliance with the minimum design, operation, and maintenance standards found in 44 CFR 65.10, or *expiration* of the PAL period (*i.e.* by September 1, 2009 *or* by November 29, 2010 for any levees for which the District submitted a one-year maintenance correction agreement letter *prior* to submitting a PAL Letter Agreement).

In addition to requiring a signed agreement for each levee, FEMA also required the District to submit additional facility indexing and condition information for any levees for which the District sought a PAL designation. Such information included a copy of the adopted Operation and Maintenance plan and records of levee maintenance and inspection, as well as tests of any mechanized interior drainage systems, if applicable.

In general, FEMA required that the operations and maintenance manuals *must* be officially adopted and include both an operations plan and a maintenance plan specific to each facility. Copies of facility operations and maintenance manuals, facility inspection reports, and documentation of repair and upgrade projects were included in the District's PAL letter documentation package that was sent to FEMA.

For PAL designation, accreditation, and certification purposes, the operation and maintenance of a levee system *must* be under the jurisdiction of a Federal or State agency, an agency created by Federal or State Law (i.e. the District), or an agency of a community participating in the NFIP. Specific operating criteria necessary to ensure the facility functions as designed in a flood emergency *must* be included.

Specific maintenance criteria necessary to ensure the facility functions as designed in a flood emergency *must* also be included in an adopted maintenance plan. The maintenance plan *must* document the formal procedure that ensures that the stability, height, and overall integrity of the levee and its associated structures and systems are maintained. At a *minimum,* the maintenance plan *shall* specify:

- The maintenance activities to be performed;
- The frequency of their performance; and
- The person, by name or title, responsible for their performance.

## POTENTIAL LEVEE CERTIFICATION COST IMPACTS ON DISTRICT BUDGETS

At this time, District staff estimates levee certification *unit costs* ranging from a low of $100,000 to a high of $200,000 per levee mile. There are thirty-one (31) levee miles shown on the attached list of seventeen District owned and operated levees. Accordingly, District staff estimates that *total* levee certification program costs could range from a low of $3 Million to a high of $6 Million spread over three fiscal years (i.e. FY 07-08, 08-09, and 09-10).

The District's adopted FY 07-08 budgets for Zone Nos. 1 through 3 included a total of $1.2 Million in appropriations earmarked for levee certification costs planned to be incurred during this fiscal year. Such planned levee certification costs included, but were not limited to, the following:

1) researching the District's "as-built" drawing files, the "facilities" GIS database, "permit" records, and the "mining" of District institutional knowledge;
2) conducting Quality Control and Quality Assurance (QA/QC) efforts to verify the information obtained from District records via site inspection of noted levee or levee-like locations to "ground truth" the data;
3) preparing the documentation packages required for the PAL Agreement letters for seventeen District levees;
4) ongoing coordination with FEMA; and
5) selection of independent specialized geotechnical and hydraulic engineering consultant(s) required to certify that these seventeen levees *meet and continue to meet* the *minimum design, operation, and maintenance standards* of 44 CFR 65.10 of the NFIP regulations.

Actual costs required to conduct the requisite geotechnical field inspections, perform the required detailed hydraulic engineering analyses, and provide the requisite independent professional certifications by the specialized engineering consultant(s) selected, as well as completion of the preparation of the levee certification documentation package by the September 1, 2009 FEMA deadline (or by November 30, 2010 for any levees for which the District submitted a one-year maintenance deficiency correction agreement letter prior to submitting a PAL Letter Agreement), will be programmed in the FY 08-09 and 09-10 budgets, as required.

The District is aggressively seeking non-WPD financing sources to help defray a portion of the costs of this unfunded, federally mandated, regulatory program. To date, the District has identified the most likely source of such funds as the State's Local Levee Grant Program (LLGP). The LLGP is a recently-developed, competitive grant program to financially assist eligible local flood control agencies to evaluate local levees (Local Levee Evaluations – LLE) and to repair and improve local flood control facilities (Local Levee Urgent Repairs – LLUR).

The $935 Million portion of the $5.8 Billion Prop 84 Bond proceeds serves as the source of funds for both of these LLGP grants. DWR advises that $20 Million from this source will be available statewide for the LLE (the first of two such grant offerings) and $40 Million for the LLUR (which will be a one-time solicitation). Both types of grants will be offered *competitively* to qualified applicants.

**SUMMARY**

The collection and submittal of the detailed facility data necessary to ensure local compliance with 44 CFR 65.10 for seventeen District owned and operated levees in Ventura County has represented a significant expenditure of time and effort by the District for known levees under our jurisdiction in Ventura County during the current fiscal year.

The District's submittal of Two-Year PAL and One-Year Maintenance Correction Period Agreement Letters to FEMA on November 27, 2007 for a total of seventeen District-owned and operated levees evidenced local compliance with the PAL designation request portion of the un-funded, federally mandated levee certification regulations contained in 44 CFR 65.10. Additionally, the District is aggressively seeking available non-WPD financing to help defray the cost incurred by it in certifying these levees in compliance with applicable federal regulations. Hopefully, our efforts to augment scarce local property taxes as the source of funding for this project will be successful.

We will keep the Watershed Protection District's Board of Supervisors apprised of key developments in this matter and seek board consultation and policy confirmation, as required. The Auditor-Controller's Office, County Executive Office, and County Counsel have reviewed this item.

If you have any questions regarding this item, please contact me directly at 654-2040, or you may contact Gerard Kapuscik, the District's Project Manager directly at 648-9284.

JEFF PRATT, P.E.
Director

Attachments:

No. 1 - *"Requirements of 44 CFR 65.10 - Mapping of Areas Protected by Levee Systems"*
No. 2 – "*Meeting the Criteria for Accrediting Levees on Flood Maps – How-to-Guide for Flood Plain Managers and Engineers"*
No. 3 - *"VCWPD District Levees Designated for 2-Year PAL and 1-Year Maintenance Correction Period Agreement Letters and Certification Paths."*
No. 4 – "*Copy of 2-Year PAL and 1-Year Maintenance Correction Period Agreement Letter Template Forms"*

FACT SHEET

LEVEES
IDENTIFYING THE RISK

# Requirements of 44 CFR Section 65.10:

## Mapping of Areas Protected by Levee Systems

As part of a mapping project, it is the levee owner's or community's responsibility to provide data and documentation to show that a levee meets the requirements of Section 65.10 of the National Flood Insurance Program (NFIP) regulations. Links to Section 65.10 and many other documents are available on FEMA's Web site at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.

The FEMA requirements in Section 65.10 are separated into five categories:

1. General criteria;
2. Design criteria;
3. Operations plans and criteria;
4. Maintenance plans and criteria; and
5. Certification requirements.

The requirements for each of these areas are summarized below.

### *(A) GENERAL CRITERIA*

For purposes of the NFIP, FEMA will only recognize in its flood hazard and risk mapping effort those levee systems that meet, and continue to meet, minimum design, operation, and maintenance standards that are consistent with the level of protection sought through the comprehensive floodplain management criteria established by Section 60.3 of the NFIP regulations. Section 65.10 of the NFIP regulations describes the types of information FEMA needs to recognize, on NFIP maps, that a levee system provides protection from the flood that has a 1-percent chance of being equaled or exceeded in any give year (base flood). This information must be supplied to FEMA by the community or other party seeking recognition of a levee system at the time a study or restudy is conducted, when a map revision under the provisions of Part 65 of the NFIP regulations is sought based on a levee system, and upon request by the Administrator during the review of previously recognized structures. The FEMA review is for the sole purpose of establishing appropriate risk zone determinations for NFIP maps and does not constitute a determination by FEMA as to how a structure or system will perform in a flood event.

### *(B) DESIGN CRITERIA*

For the purposes of the NFIP, FEMA has established levee design criteria for freeboard, closures, embankment protection, embankment and foundation stability, settlement, interior drainage, and other design criteria. These criteria are summarized in subsections below.

#### (B)(1) FREEBOARD

For riverine levees:

- A minimum freeboard of 3 feet above the water-surface level of the base flood must be provided.
- An additional 1 foot above the minimum is required within 100 feet on either side of structures (e.g., bridges) riverward of the levee or wherever the flow is constricted.

- An additional 0.5 foot above the minimum at the upstream end of the levee, tapering to not less than the minimum at the downstream end of the levee, is also required.

Exceptions to the minimum riverine freeboard requirements above may be approved if the following criteria are met:

- Appropriate engineering analyses demonstrating adequate protection with a lesser freeboard must be submitted.
- The material presented must evaluate the uncertainty in the estimated base flood elevation profile and include, but not necessarily be limited to:
    - An assessment of statistical confidence limits of the 1-percent-annual-chance discharge;
    - Changes in stage-discharge relationships; and
    - Sources, potential, and magnitude of debris, sediment, and ice accumulation.
- It must be also shown that the levee will remain structurally stable during the base flood when such additional loading considerations are imposed.

Under no circumstances will freeboard of less than 2 feet be accepted.

For coastal levees, the freeboard must be established at 1 foot above the height of the 1-percent-annual-chance wave or the maximum wave runup (whichever is greater) associated with the 1-percent-annual-chance stillwater surge elevation at the site.

Exceptions to the minimum coastal freeboard requirements above may be approved if the following criteria are met:

- Appropriate engineering analyses demonstrating adequate protection with a lesser freeboard must be submitted.
- The material presented must evaluate the uncertainty in the estimated base flood loading conditions. Particular emphasis must be placed on the effects of wave attack and overtopping on the stability of the levee.

Under no circumstances will a freeboard of less than 2 feet above the 1-percent-annual-chance stillwater surge elevation be accepted.

### (B)(2) CLOSURES

The levee closure requirement is that all openings must be provided with closure devices that are structural parts of the system during operation and design according to sound engineering practice.

### (B)(3) EMBANKMENT PROTECTION

Engineering analyses must be submitted to demonstrate that no appreciable erosion of the levee embankment can be expected during the base flood, as a result of either currents or waves, and that anticipated erosion will not result in failure of the levee embankment or foundation directly or indirectly through reduction of the seepage path and subsequent instability.

The factors to be addressed in such analyses include, but are not limited to:

- Expected flow velocities (especially in constricted areas);
- Expected wind and wave action;

- Ice loading;
- Impact of debris;
- Slope protection techniques;
- Duration of flooding at various stages and velocities;
- Embankment and foundation materials;
- Levee alignment, bends, and transitions; and
- Levee side slopes.

**(B)(4) EMBANKMENT AND FOUNDATION STABILITY**

Engineering analyses that evaluate levee embankment stability must be submitted.

The analyses provided shall evaluate expected seepage during loading conditions associated with the base flood and shall demonstrate that seepage into or through the levee foundation and embankment will not jeopardize embankment or foundation stability.

An alternative analysis demonstrating that the levee is designed and constructed for stability against loading conditions for Case IV as defined in U.S. Army Corps of Engineers (USACE) Engineering Manual 1110-2-1913, Chapter 6, Section II, may be used.

The factors that shall be addressed in the analyses include:

- Depth of flooding;
- Duration of flooding;
- Embankment geometry and length of seepage path at critical locations;
- Embankment and foundation materials;
- Embankment compaction;
- Penetrations;
- Other design factors affecting seepage (e.g., drainage layers); and
- Other design factors affecting embankment and foundation stability (e.g., berms).

**(B)(5) SETTLEMENT**

Engineering analyses must be submitted that assess the potential and magnitude of future losses of freeboard as a result of levee settlement and demonstrate that freeboard will be maintained within the minimum freeboard standards set forth in B(1).

This analysis must address:

- Embankment loads,
- Compressibility of embankment soils,
- Compressibility of foundation soils,

- Age of the levee system, and
- Construction compaction methods.

A detailed settlement analysis using procedures such as those described in USACE Engineering Manual EM 1100-2-1904 must be submitted.

### (B)(6) INTERIOR DRAINAGE

An analysis must be submitted that identifies the source(s) of such flooding; the extent of the flooded area; and, if the average depth is greater than 1 foot, the water-surface elevation(s) of the base flood. This analysis must be based on the joint probability of interior and exterior flooding and the capacity of facilities (such as drainage lines and pumps) for evacuating interior floodwaters. Interior drainage systems usually include storage areas, gravity outlets, pumping stations, or a combination thereof.

For areas of interior drainage that have average depths greater than 1 foot, mapping must be provided depicting the extents of the interior flooding, along with supporting documentation.

### (B)(7) OTHER DESIGN CRITERIA

In unique situations, such as those where the levee system has relatively high vulnerability, FEMA may require that other design criteria and analyses be submitted to show that the levees provide adequate protection. In such situations, sound engineering practice will be the standard on which FEMA will base its determinations. FEMA also will provide the rationale for requiring this additional information.

## *(C) OPERATIONS PLANS AND CRITERIA*

For a levee system to be recognized, the operational criteria must be as described below. All closure devices or mechanical systems for internal drainage, whether manual or automatic, must be operated in accordance with an officially adopted operation manual, a copy of which must be provided to FEMA by the operator when levee or drainage system recognition is being sought or when the manual for a previously recognized system is revised in any manner. All operations must be under the jurisdiction of a Federal or State agency, an agency created by Federal or State law, or an agency of a community participating in the NFIP.

### (C)(1) CLOSURES

Operation plans for closures must include the following:

- Documentation of the flood warning system, under the jurisdiction of Federal, State, or community officials, that will be used to trigger emergency operation activities and demonstration that sufficient flood warning time exists for the completed operation of all closure structures, including necessary sealing, before floodwaters reach the base of the closure;
- A formal plan of operation, including specific actions and assignments of responsibility by individual name or title; and
- Provisions for periodic operation, at not less than 1-year intervals, of the closure structure(s) for testing and training purposes.

### (C)(2) INTERIOR DRAINAGE SYSTEMS

Interior drainage systems associated with levee systems usually include storage areas, gravity outlets, pumping stations, or a combination thereof. FEMA will recognize these drainage systems on NFIP maps for flood protection purposes only if the following minimum criteria are included in the operation plan:

- Documentation of the flood warning system, under the jurisdiction of Federal, State, or community officials, that will be used to trigger emergency operation activities and demonstration that sufficient flood warning time exists to permit activation of mechanized portions of the drainage system;
- A formal plan of operation, including specific actions and assignments of responsibility by individual name or title;
- Provision for manual backup for the activation of automatic systems; and
- Provisions for periodic inspection of interior drainage systems and periodic operation of any mechanized portions for testing and training purposes; no more than 1 year shall elapse between either the inspections or the operations.

### (C)(3) OTHER OPERATION PLANS AND CRITERIA

FEMA may require other operating plans and criteria to ensure that adequate protection is provided in specific situations. In such cases, sound emergency management practice will be the standard upon which FEMA determinations will be based.

## *(D) MAINTENANCE PLANS AND CRITERIA*

For levee systems to be recognized as providing protection from the base flood, the following maintenance criteria must be met:

- Levee systems must be maintained in accordance with an officially adopted maintenance plan, and a copy of this plan must be provided to FEMA by the owner of the levee system when recognition is being sought or when the plan for a previously recognized system is revised in any manner.
- All maintenance activities must be under the jurisdiction of a(n):
    - Federal or State agency;
    - Agency created by Federal or State law; or
    - Agency of a community participating in the NFIP that must assume ultimate responsibility for maintenance.
- The maintenance plan must document the formal procedure that ensures that the stability, height, and overall integrity of the levee and its associated structures and systems are maintained.
- At a minimum, the maintenance plan shall specify:
    - Maintenance activities to be performed;
    - Frequency of their performance; and
    - Person by name or title responsible for their performance.

## *(E) CERTIFICATION REQUIREMENTS*

Data submitted to support that a given levee system complies with the structural requirements set forth in B(1) through B(7) above must be certified by a Registered Professional Engineer. Also, certified as-built plans of the levee must be submitted. Certifications are subject to the definition given in Section 65.2 of the NFIP regulations. In lieu of these structural requirements, a Federal agency with responsibility for levee design may certify that the levee has been adequately designed and constructed to provide protection against the base flood.

FACT SHEET

LEVEES
IDENTIFYING THE RISK

# Meeting the Criteria for Accrediting Levees on Flood Maps

## How-to-Guide for Floodplain Managers and Engineers

A levee is a manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding. Levees include floodwalls and other flood-control structures (not including dams).

As part of the countywide flood mapping process, the Department of Homeland Security, Federal Emergency Management Agency (FEMA) and its State and local mapping partners need to review data associated with levees.

It is the levee owner's or community's responsibility to provide data and documentation to demonstrate that a levee meets the requirements of the National Flood Insurance Program (NFIP) as described in Title 44, Chapter 1, Section 65.10 of the Code of Federal Regulations (44 CFR Section 65.10) which you may view on FEMA's Web site at www.fema.gov/plan/ prevent/ fhm/lv_fpm.shtm.

To be recognized as providing protection from the 1-percent-annual-chance flood on Flood Insurance Rate Maps (FIRMs), levee systems must meet *and continue to meet* the minimum design, operation, and maintenance standards of 44 CFR Section 65.10 of the NFIP regulations.

To help clarify the responsibilities of community officials, levee owners, or other parties seeking recognition of a levee for providing information on levees identified during a mapping project, FEMA issued Procedure Memorandum No. 34 (PM 34), *Interim Guidance for Studies Including Levees*, on August 22, 2005. PM 34 provided clarification of the existing procedures, which were provided in Appendix H of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners*.

FEMA issued Revised Procedure Memorandum No. 43, *Guidelines for Identifying Provisionally Accredited Levees*, on March 16, 2007, which will allow mapping contractors and partners to issue preliminary and, in some cases, effective flood maps while communities and levee owners are compiling and submitting the full documentation necessary to show compliance with 44 CFR Section 65.10 requirements.

This document provides information regarding what types of information you'll need to submit during the mapping process for your levee to be recognized as providing protection on FIRMs, including a checklist and an index of further resources you may wish to consult.

### COMMUNITIES WITH LEVEES SHOULD KNOW:

- The participating community and/or other party seeking recognition or continued recognition must provide sufficient data showing that the levee provides protection from the 1-percent-annual-chance flood (also known as the base flood) for FEMA to recognize the levee on a FIRM.
- Communities *must* actively participate in the levee documentation process.
- Levees structures without sufficient documentation will not be credited as providing flood protection.
- Some levees may qualify to be shown as Provisionally Accredited Levees on the FIRM. Guidance regarding Provisionally Accredited Levees is available at www.fema.gov/plan/ prevent/fhm/lv_fpm. shtm.



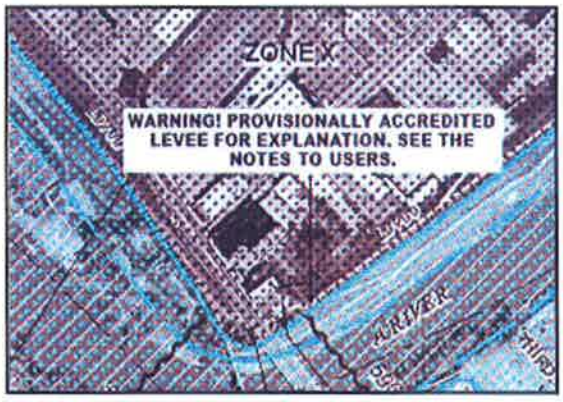
Attachment 2

## HOW WILL FEMA MAP LEVEES?

FEMA's mapping requirements are designed to provide the people living and working behind the levee with appropriate risk information so that they may minimize damage and loss of life. It is important to note that FEMA does not evaluate the performance of a levee—this is the responsibility of the levee owner. FEMA is responsible for establishing mapping standards and risk determination zones and reflecting these determinations on flood maps.


### Levee Accredited on FIRM

An accredited levee is a levee that FEMA shows on a FIRM as providing protection from the 1-percent-annual-chance or greater flood. This determination is based on the submittal of data and documentation as required by the NFIP regulations. The area landward of an accredited levee is shown as Zone X (shaded) on the FIRM except for areas of residual flooding, such as ponding areas, which will be shown as Special Flood Hazard Area. Flood insurance is not mandatory in Zone X (shaded); however, it is strongly encouraged for all structures in areas behind levees.




### Provisionally Accredited Levee (PAL)

A PAL is a designation for a levee that FEMA has previously accredited with providing 1-percent-annual-chance flood protection on an effective FIRM, and for which FEMA is awaiting data and/or documentation that will show the levee's compliance with NFIP regulations. Before FEMA will designate a levee as a PAL, the community or levee owner will need to sign and return an agreement that indicates that documentation required for compliance with 44 CFR Section 65.10 of the NFIP regulations will be provided within a specified timeframe, depending upon the levee's status. Flood insurance is not mandatory for structures behind a levee with provisional status however, it is strongly encouraged.


### Levee Not Accredited or De-accredited on FIRM

If the levee is not shown as providing protection from the 1-percent-annual-chance flood on an effective FIRM, the levee is considered "not accredited" and is mapped as Zone AE or Zone A, depending upon the type of study performed for the area. If the levee was previously shown providing protection from the 1-percent-annual-chance flood on an effective FIRM but does not meet the Provisionally Accredited Levee (PAL) requirements or is no longer eligible for the PAL, FEMA will "de-accredit" the levee and the area landward of the levee will be remapped as Zone AE or Zone A (high-risk flood zones) depending on the type of study performed for the area. Flood insurance will be required for structures with a federally backed mortgage.



Attachment 2

| Design Criteria* | Section of the NFIP Regulations: 65.10(b) |
|---|---|
| **Description:** For levees to be recognized by FEMA, evidence that adequate design and operation and maintenance systems are in place to provide reasonable assurance that protection from the base flood exists must be provided. The following requirements must be met: | |
| **Checklist for Design Criteria:** | |
| ■ | **Freeboard.** Minimum freeboard required 3 feet above the Base Flood Elevation (BFE) all along length, and an additional 1 foot within 100 feet of structures (such as bridges) or wherever the flow is restricted. Additional 0.5 foot at the upstream end of levee. Coastal levees have special freeboard requirements (see 65.10(b)(1)(iii) and (iv)). |
| ■ | **Closures.** All openings must be provided with closure devices that are structural parts of the system during operation and designed according to sound engineering practice. |
| ■ | **Embankment Protection**. Engineering analyses must be submitted that demonstrate that no appreciable erosion of the levee embankment can be expected during the base flood, as a result of either currents or waves, and that anticipated erosion will not result in failure of the levee embankment or foundation directly or indirectly through reduction of the seepage path and subsequent instability. |
| ■ | **Embankment and Foundation Stability Analyses.** Engineering analyses that evaluate levee embankment stability must be submitted. The analyses provided shall evaluate expected seepage during loading conditions associated with the base flood and shall demonstrate that seepage into or through the levee foundation and embankment will not jeopardize embankment or foundation stability. An alternative analysis demonstrating that the levee is designed and constructed for stability against loading conditions for Case IV as defined in the U.S. Army Corps of Engineers (USACE) manual, *Design and Construction of Levees*, (EM 1110–2–1913, Chapter 6, Section II), may be used. |
| ■ | **Settlement Analyses.** Engineering analyses must be submitted that assess the potential and magnitude of future losses of freeboard as a result of levee settlement and demonstrate that freeboard will be maintained. This analysis must address embankment loads, compressibility of embankment soils, compressibility of foundation soils, age of the levee system, and construction compaction methods. In addition, detailed settlement analysis using procedures such as those described in the USACE manual, *Soil Mechanics Design— Settlement Analysis* (EM 1100–2–1904), must be submitted. |
| ■ | **Interior Drainage.** An analysis must be submitted that identifies the source(s) of such flooding, the extent of the flooded area, and, if the average depth is greater than one foot, the water-surface elevation(s) of the base flood. This analysis must be based on the joint probability of interior and exterior flooding and the capacity of facilities (such as drainage lines and pumps) for evacuating interior floodwaters. |

| Operation Plan* | Section of the NFIP Regulations: 65.10(c)(1) |
|---|---|
| **Description:** For a levee system to be recognized, the operational criteria must be as described below. All closure devices or mechanical systems for internal drainage, whether manual or automatic, must be operated in accordance with an officially adopted operation manual, a copy of which must be provided to FEMA by the operator when levee or drainage system recognition is being sought or when the manual for a previously recognized system is revised in any manner. All operations must be under the jurisdiction of a Federal or State agency, an agency created by Federal or State law, or an agency of a community participating in the NFIP. | |
| **Checklist for Operation Plan:** | |
| ☐ | **Flood Warning System.** Documentation of the flood warning system, under the jurisdiction of Federal, State, or community officials that will be used to trigger emergency operation activities; and demonstration that sufficient flood warning time exists for the completed operation of all closure structures, including necessary sealing, before floodwaters reach the base of the closure. |
| ☐ | **Plan of Operation.** A formal plan of operation including specific actions and assignments of responsibility by individual name or title. |
| ☐ | **Periodic Operation of Closures.** Provisions for periodic operation, at not less than one-year intervals, of the closure structure for testing and training purposes. |
| ☐ | **Interior Drainage Plan.** See below. |
| **Interior Drainage Plan** | **Section of the NFIP Regulations: 65.10(c)(2)** |
| **Description:** Interior drainage systems associated with levee systems usually include storage areas, gravity outlets, pumping stations, or a combination thereof. These drainage systems will be recognized by FEMA on NFIP maps for flood protection purposes only if the following minimum criteria are included in the operation plan. | |
| **Checklist for Interior Drainage Plan:** | |
| ☐ | **Flood Warning System.** Documentation of the flood warning system, under the jurisdiction of Federal, State, or community officials that will be used to trigger emergency operation activities; and demonstration that sufficient flood warning time exists to permit activation of mechanized portions of the drainage system. |
| ☐ | **Plan of Operation.** A formal plan of operation including specific actions and assignments of responsibility by individual name or title. |

| | |
|---|---|
| | **Manual Backup.** Provision for manual backup for the activation of automatic systems. |
| | **Periodic Inspection.** Provisions for periodic inspection of interior drainage systems and periodic operation of any mechanized portions for testing and training purposes. No more than 1 year shall elapse between either the inspections or the operations. |
| **Maintenance Plan** | **Section of the NFIP Regulations: 65.10(d)** |
| **Description:** For levee systems to be recognized as providing protection from the base flood, the maintenance criteria must be as described herein: | |
| **Checklist for Maintenance Plan:** | |
| | Levee systems must be maintained in accordance with an officially adopted maintenance plan, and a copy of this plan must be provided to FEMA by the owner of the levee system when recognition is being sought or when the plan for a previously recognized system is revised in any manner. |
| | All maintenance activities must be under the jurisdiction of a Federal or State agency, an agency created by Federal or State law, or an agency of a community participating in the NFIP that must assume ultimate responsibility for maintenance. |
| | This plan must document the formal procedure that ensures that the stability, height, and overall integrity of the levee and its associated structures and systems are maintained. At a minimum, the plan shall specify the maintenance activities to be performed, the frequency of their performance, and the person by name or title responsible for their performance. |
| **Certification** | **Section of the NFIP Regulations: 65.10(e)** |
| **Description:** Data submitted to support that a given levee system complies with the structural requirements set forth in "Design Criteria" (paragraphs (b)(1) through (7) of the regulations) must be certified by a registered PE. Also, certified "as-built" plans of the levee must be submitted. Certifications are subject to the definition given in Section 65.2 of the NFIP regulations. In lieu of these structural requirements, a Federal agency with responsibility for levee design may certify that the levee has been adequately designed and constructed to provide protection against the base flood. | |
| **Checklist for Certification Requirement:** | |
| | All data submitted is certified by Professional Engineer or certified by a Federal agency. |
| | Certified as-built levee plans are included in the submittal. |

## A NOTE ABOUT RISK AND FLOOD INSURANCE

It is important to note that levees are designed to provide a *specific level of protection*. They can be overtopped or fail in a larger flood events.

Levees also decay over time. They require regular maintenance and periodic upgrades to retain their level of protection. When levees do fail, they fail catastrophically. The damage may be more significant than if the levee was not there at all.

For all these reasons, FEMA strongly urges people to understand their flood risk, know their evacuation procedures, and protect their property by purchasing flood insurance.

## CHECKLIST INFORMATION

The checklist provided in this publication is meant to assist local officials and levee owners in gathering the documentation that will be required for FEMA to show a levee as providing base flood protection on the community's FIRM. Where possible, text from the actual NFIP regulations (44 CFR Section 65.10) was used.

The checklist is set up according to the appropriate paragraph of 65.10. For example, Design Criteria can be found in Paragraph 65.10(b):

| Design Criteria* | Section of the FEMA Regulations: 65.10(b) |
|---|---|
| **Description:** For levees to be recognized by FEMA, evidence that adequate design and operation and maintenance systems are in place to provide reasonable assurance that protection from the base flood exists must be provided. The following requirements must be met: | |

For a comprehensive description of each item in this checklist, please see Appendix H of the *Guidelines and Specifications for Flood Hazard Mapping Partners*. Locations of this resource, and other useful resources, are provided below.

## INDEX OF RESOURCES

This resource, and other levee-related information and materials, can be found at www.fema.gov/plan/prevent/fhm/lv_intro.shtm.

Procedure Memorandum No. 34, *Interim Guidance for Studies Including Levees*, can be found at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.

Revised Procedure Memorandum No. 43, *Guidelines for Identifying Provisionally Accredited Levees*, can be found at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.

Appendix H of the *Guidelines and Specifications for Flood Hazard Mapping Partners* can be downloaded at www.fema.gov/plan/prevent/fhm/dl_cgs.shtm.

44 CFR Section 65.10 of the NFIP regulations can be downloaded at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.

Flood insurance information can be found at www.fema.gov/business/nfip or on the NFIP's consumer site, www.FloodSmart.gov.



Attachment 2

## VENTURA COUNTY WATERSHED PROTECTION DISTRICT LEVEES

## LEVEES DESIGNATED FOR TWO-YEAR PAL & ONE-YEAR MAINTENANCE CORRECTION AGREEMENT LETTERS AND CERTIFICATION PROCESS PATHS

| | *LEVEE* | | | | | | *CERTIFICATION PATH* | *PAL & MAINTENANCE CORRECTION PERIOD LETTER SIGNERS* | | | | | | | | | | | | *SIGNATURE DATE* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LINE No. | VCWPD ID No. | Zone | River | Name | Year Built | Length (miles) | PM 34 CERTIFICATION AND FEMA ACCREDITATION PATH CHOSEN FOR LEVEE | VCWPD | Ventura County | Ventura | Oxnard | Hueneme | Moorpark | Camarillo | Santa Paula | Fillmore | Ojai | Simi Valley | Thousand Oaks | VCWPD | VENTURA COUNTY | IMPACTED COMMUNITY CEO | *DATE PAL LETTER SENT TO FEMA* |
| 1 | VR - 1 | 1 | Ventura River | Ventura River Levee - Ocean to Canada de San Joaquin | 1949 | 2.65 | The District plans to submit a PAL agreement, and will prepare certification documents using US Army Corps of Engineers Risk Assessment criteria. | X | X | X | | | | | | | | | | *11/20/07* | *11/21/2007* | *11/26/2007* | *11/27/07* |
| 2 | SCR - 1 | 2 | Santa Clara River | Santa Clara River Levee, Hwy 101 to Saticoy | 1969 | 4.06 | The District plans to submit a PAL agreement, and will prepare certification documents using US Army Corps of Engineers Risk Assessment criteria. | X | X | | X | | | | | | | | | *11/20/07* | *11/21/2007* | *11/27/2007* | *11/27/07* |
| 3 | SC - 1 | 2 | Sespe Creek | Sespe Creek Levee @ Fillmore | 1984 | 2.09 | The District plans to submit a maintenance correction deferment request prior to submitting a PAL agreement. The request involves removal of excessive sediment deposition from the channel in order to restore flow capacity. The District will prepare certification documentation using US Army Corps of Engineers Risk Assessment criteria. | X | | | | | | | | | | | | *11/20/07* | *N/A* | *N/A* | *11/27/07* |
| 4 | VR - 2 | 1 | Ventura River | Ventura River Levee @ Casitas Springs | 1979 | 1.11 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | X | X | | | | | | | | | | *11/20/07* | *11/21/2007* | *11/26/2007* | *11/27/07* |
| 5 | VR - 3 | 1 | Ventura River | Ventura River Levee and Floodwall @ Live Oaks | 2000 | 1.43 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | X | | | | | | | | | | | *11/20/07* | *11/21/2007* | *11/21/2007* | *11/27/07* |
| 6 | SCR - 2 | 2 | Santa Clara River | Santa Clara River Levee @ Saticoy | 1962 | 0.45 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | | X | | | | | | | | | | *11/20/07* | *N/A* | *11/27/2007* | *11/27/07* |
| 7 | SCR - 3 | 2 | Santa Clara River | Santa Clara River Levee, Vicinity of Victoria Ave to Hwy 101 | 1977 | 1.86 | The District plans to submit a maintenance correction deferment request prior to submitting a PAL agreement. The request involves removal of vegetation from the levee. The District will prepare certification documentation in accordance with 44 CFR 65.01 criteria. | X | | | | | | | | | | | | *11/20/07* | *N/A* | *N/A* | *11/27/07* |
| 8 | ERD - 1 | 2 | El Rio Drain | El Rio Drain - Hwy 101 to Santa Clara River | 1963 | 1.14 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | | | X | | | | | | | | | *11/20/07* | *N/A* | *11/27/2007* | *11/27/07* |
| 9 | CC - 2 | 3 | Calleguas Creek | Calleguas Creek Levee - Mission Oaks Blvd. to Somis Drain | 1985 | 0.84 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | | | | | | X | | | | | | *11/20/07* | *N/A* | *11/26/2007* | *11/27/07* |
| 10 | CC - 3 | 3 | Calleguas Creek | Calleguas Creek - Pleasant Valley Road to Hwy 101 | 1986 | 0.78 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | | | | | | X | | | | | | *11/20/07* | *N/A* | *11/26/2007* | *11/27/07* |
| 11 | CHD-1 | 3 | Camarillo Hills Drain | Camarillo Hills Drain @ Camarillo Airport | 1985 | 6.76 | The District plans to submit a maintenance correction deferment request prior to submitting a PAL agreement. The request involves completion of construction "punch list" items prior to contract completion. The District will prepare certification documentation in accordance with 44 CFR 65.01 criteria. | X | | | | | | | | | | | | *11/20/07* | *N/A* | *N/A* | *11/27/07* |
| 12 | AS - 2 | 3 | Arroyo Simi | Arroyo Simi - d/s of Spring Road | 1985 | 1.34 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | | | | | X | | | | | | | *11/20/07* | *N/A* | *11/21/2007* | *11/27/07* |
| 13 | AS - 3 | 3 | Arroyo Simi | Arroyo Simi - Spring Road to S.P.R.R. Bridge | 1993 | 1.20 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | | | | | X | | | | | | | *11/20/07* | *N/A* | *11/21/2007* | *11/27/07* |
| 14 | AS - 6 | 3 | Arroyo Simi | Arroyo Simi - 1st. Street to Erringer Road | 1987 | 2.10 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | | | | | | | | | | X | | *11/20/07* | *N/A* | *11/21/2007* | *11/27/07* |
| 15 | AS - 7 | 3 | Arroyo Simi | Arroyo Simi - S.P.R.R. Bridge to Stow Street | 2002 | 1.21 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | | | | | | | | | | X | | *11/20/07* | *N/A* | *11/21/2007* | *11/27/07* |
| 16 | CON - 1 | 3 | Conejo Creek | Conejo Creek @ Leisure Village | 1979 | 2.23 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | | | | | | X | | | | | | *11/20/07* | *N/A* | *11/26/2007* | *11/27/07* |
| 17 | ASR - 2 | 3 | Arroyo Santa Rosa | Arroyo Santa Rosa Flood Wall @ East Las Posas Road | 1997 | 0.11 | The District plans to submit a PAL agreement and to prepare certification documentation in accordance with 44 CFR 65.10 criteria. | X | X | | | | | | | | | | | *11/20/07* | *11/21/2007* | *11/21/2007* | *11/27/07* |
| | | | | **TOTAL:** | | **31.36** | **LEVEE MILES** | | | | | | | | | | | | | | | | |

**Color Code Key:**

- **District Levee: originally built by the U.S. Army Corps of Engineers and then accepted into the District's system for long-term operation and maintenance**
- **District Levee: originally built either by District personnel/contractors or by Developers and then accepted into the District's system for long-term operations and maintenance**
- **District Levee: one-year Maintenance Correction Period Letter submitted to FEMA prior to submitting either proof of certification or request for two-year PAL Agreement on or before 11/30/08**

Attachment 3

November 20, 2007

Ms. Sally Ziolkowski, Director
Mitigation Division
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

**Subject: XXX–X, District Levee Name – FEMA ID # XX - Letter of Agreement and Request for Provisionally Accredited Levee (PAL) Designation and Agreement to Provide Adequate Compliance with the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10)**

Dear Ms. Ziolkowski:

We, the undersigned, have received a letter from FEMA dated August 31, 2007 with an enclosed *"Levee Status Map"* and *"Levee Status Table"* and two enclosed documents titled *"Title 44 of the Code of Federal Regulations (CFR), Section 65.10 (44 CFR 65.10)"* and *"Requirements of 44 CFR Section 65.10: Mapping of Areas Protected by Levee Systems."*

We understand that FEMA is in the process of providing an updated Flood Insurance Rate Map for Ventura County, California and that the flood hazards around levee(s) identified on the *Levee Status Map* and *Levee Status Table* with FEMA ID Number XX will be remapped to reflect that these levees have been designated a Provisionally Accredited Levee (PAL). This levee or levee system(s) is also known as District Levee Name

To the best of our knowledge, the levee(s) identified above meet the criteria of 44 CFR 65.10 and has/have been maintained in accordance with an adopted operation and maintenance plan. For Scenario A (non-USACE Program) levees, this must be evidenced by an attached Operation and Maintenance Plan and records of levee maintenance and operation, as well as Test Records of Mechanized Interior Drainage System. We hereby submit to FEMA within 90 days (before November 30, 2007) our agreement to provide FEMA with all the necessary information to show that the levee(s) identified above comply with 44 CFR 65.10.

We understand that this documentation will be provided by the Ventura County Watershed Protection District (District) to FEMA before September 1, 2009. Providing the information described in 44 CFR 65.10 will allow FEMA to move forward with the flood mapping for Ventura County.

We fully understand that if complete documentation of compliance with 44 CFR 65.10 is not provided by the District to FEMA within the designated timeframe of 24 months, FEMA will initiate a revision to the Flood Insurance Rate Map for Ventura County to redesignate the area as flood prone.

**Levee Owner: Ventura County Watershed Protection District (VCWPD)**

Representative (signature): _____Date: _____

Representative (print name): Jeff Pratt, Director, VCWPD

**Affected Community: (County or City)**

CEO or designee (signature): _____Date: _____

Community CEO: County CEO or City Manager (Affected Community)

November 20, 2007

Ms. Sally Ziolkowski, Director
Mitigation Division
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

**Subject: XXX--X, District Levee Name – FEMA ID # XX - Letter Requesting One-Year Maintenance Correction Period to Provide Adequate Compliance with the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10)**

Dear Ms. Ziolkowski:

According to the FEMA's August 31, 2007 Letter to Jeff Pratt, Director, Ventura County Watershed Protection District (District):

*"..If the only grounds for the levee in question not currently meeting the 44 CFR 65.10 criteria of PAL requirements are maintenance issues, then the FEMA Region IX office must be contacted by letter to bring attention to the matter before the end of the 90 day period..If you notify FEMA that the levee has known maintenance deficiencies, then a 1-year correction period can be provided to remedy these deficiencies.*

This letter serves as the District's notification to FEMA that the levee shown as **XXX--X, District Levee Name – FEMA ID # XX**, has "known maintenance issues" and that the District would like to request a one-year maintenance correction period to remedy these deficiencies. The District understands that the one-year maintenance correction period begins on November 30, 2007 and ends on November 30, 2008.

Sincerely,

Jeff Pratt, Director
Ventura County Watershed Protection District

Pc: John Johnston, CEO, County of Ventura
XXXXXXX, City Manager, City of XXXXX