

**State of California**  
The Natural Resources Agency  
Department of Water Resources  
Division of Flood Management



**2008**  
**INSPECTION REPORT**  
**OF THE**  
**CENTRAL VALLEY STATE-FEDERAL**  
**FLOOD PROTECTION SYSTEM**

**PUBLISHED IN APRIL 2009**

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## LIST OF ACRONYMS

Acronym	Complete Phrase
DWR	Department of Water Resources
FPIIB	Flood Project Integrity & Inspection Branch
FPIS	Flood Project Inspection Section
the Board or CVFPB	Central Valley Flood Protection Board (formerly know as the Reclamation Board)
USACE	United States Army Corps of Engineers
FEMA	Federal Emergency Management Agency
LMA	Local Maintaining Agency
LD	Levee District
MA	Maintenance Area
NA	Named Area
ST	State Maintained Area
RS	Rock Site
O&M	Operation & Maintenance
ICW	Inspection of Completed Works
A	Inspection Rating—Acceptable
M	Inspection Rating—Minimally Acceptable
U	Inspection Rating—Unacceptable
PO	Inspection Rating—Partially Obstructing
CO	Inspection Rating—Completely Obstructing
NR	Inspection Rating—Not Rated

# 1 INTRODUCTION

The purpose of this report is to document the results of the California Department of Water Resources (DWR) 2008 State-federal Flood Protection System inspections and deficiencies that may be affecting the structural integrity of system levees. This report is for use by the U.S. Army Corps of Engineers (USACE), DWR, the Central Valley Flood Protection Board (the Board), Local Maintaining Agencies (LMA), and other interested parties.

As stated in USACE's Standard Operation and Maintenance (O&M) Manual, each LMA is required to perform a detailed inspection every 90 days, including prior to the flood season, immediately following each major high water period, and at any other time deemed necessary by the LMA superintendent. The findings of these inspections are to be reported to the Board's Chief Engineer through DWR's Flood Project Integrity and Inspection Branch (FPIIB).

Federal Flood Control Regulations (Title 33 of the Code of Federal Regulations, Section 208.10 (33 CFR 208.10), also require the federal flood protection facilities to be inspected four times each year, at intervals not exceeding 90 days. As requested, DWR will report quarterly to the Board on inspection activities.

## 1.1 *Executive Summary*

This report summarizes the 2008 inspection activities for the State-federal portions of the flood protection system within the Central Valley.

Significant regulatory changes occurred in late 2006 and in 2007 that had a major impact on inspections of the State-federal Flood Protection System and ratings given as a result of those inspections. Following Hurricanes Katrina and Rita in August and September, 2005 and high water events in the Central Valley in January and April 2006, threats from floods and the condition of the flood protection system received increased attention. In November 2006, California voters approved two initiatives that provided approximately five billion dollars to improve the system. The flood system has come under greater scrutiny, and inspection criteria are being more rigorously applied by the USACE and DWR inspectors. DWR's recognition of the need for improved maintenance and the USACE's National Levee safety initiatives, including recent Corps policy statements on vegetation and encroachments, have led to a more thorough application of long-standing levee maintenance criteria.

DWR conducts two comprehensive levee inspections each year. DWR completed annual fall inspections in December 2008, documenting the location, size, type, and rating of maintenance deficiencies. DWR followed USACE criteria for most categories, but used interim vegetation criteria aimed at improving public safety by providing visibility for inspections and improving access for flood fight activities. DWR applied the same overall rating methodology used in the 2007 inspection and has compared the results of maintenance conducted during 2007 to the results from 2008.

As new inspection standards developed in 2007 continue to be applied during periodic inspections and as LMAs continue to adapt their maintenance practices to these standards, the overall quality of maintenance of the system is improving. The results of the 2008 inspections show 39 of the 107 LMAs receiving Unacceptable ratings, decreasing from 65 in 2007. The number of LMAs receiving Acceptable ratings increased from 24 in 2007 to 42 in 2008. The number of LMAs receiving Minimally Acceptable ratings increased from 18 in 2007 to 26 in 2008.

Project Channels and Structures are also inspected annually. The 2008 inspection yielded twenty four channels and forty nine structures rated as Acceptable, one channel and six structures rated as Minimally Acceptable, while no channels or structure received Unacceptable ratings. The inspection and rating process has also been improved in 2008 to provide more consistent ratings.

This report includes information on erosion surveys conducted from both the water and the land sides along the Sacramento and San Joaquin rivers. Ratings for erosion sites not currently programmed for repair were included in calculations of overall ratings.

The inspection results show a clear improvement in maintenance practices of most LMAs, both by a larger number of Acceptable and Minimally Acceptable ratings and by a decrease in the miles of maintenance deficiencies throughout the total system. Some units continue to be rated as Unacceptable, but show marked improvement in the LMA's maintenance practices. DWR continues to improve its inspection program and consistency, and continues to use the interim vegetation criteria in its inspections while working with the LMAs to help ensure a functional flood protection system.

As discussed in *California's Central Valley Flood System Improvement Framework*, following a Corps levee inspection or after reviewing the State's inspection findings, if it is determined that the levee system be rated "unacceptable" due to channel capacity, seepage, erosion, encroachments, or vegetation deficiencies, the system will be allowed to remain "active" in the PL 84-99 program and will continue to receive rehabilitation assistance in the event of a flood if the State is demonstrating positive progress in achieving the Framework's short-term maintenance objectives. This PL 84-99 eligibility criteria shall remain in effect until 2012 when it will be reconsidered based on the contents of the CVFPP.

A copy of this annual report and other related reports have been published on-line at <http://cdec.water.ca.gov/fsir.html>.

## **1.2 Central Valley Flood Protection System Overview**

Congress authorized the Sacramento River Flood Control Project (SRFCP) in 1917, and subsequent supplemental authorizations (e.g. Sacramento River major and minor tributaries, American River levees, etc.) have added components to the SRFCP over the years. The San Joaquin River Flood Control Project consists of a number of separate federally authorized flood protection projects, most of which have been built since the 1940's (for example: Merced and Fresno Counties stream groups, Lower San Joaquin River, etc.). In addition, the Board has designated floodways on virtually all the Sierra

rivers draining into the San Joaquin Valley and the Tulare Lake Basin. The two major river flood protection systems (Plates 1 and 1A) have combined totals of approximately 1,569 miles of federal project levees (shown on Plate 2), 1,200 miles (148,000 acres) of designated floodways (shown on Plate 2), several thousand acres of project channels (shown on Plate 2), and 56 other major flood protection works (e.g. overflow weirs, flood relief structures, outfall gates, and the Sutter Bypass pumping plants). Designated Floodways, adopted by the Board, are a significant part of the flood protection system and include many major rivers and streams that are not Flood Control Project Channels.

The federal government, acting through the USACE, designed and constructed many of these federal levees and other flood protection works. Some existing levees were also incorporated into the Sacramento and San Joaquin flood protection systems through the passage of federal statutes but in some cases without benefit of USACE design or construction. The State of California generally provides lands, easements, and rights-of-ways when necessary for project construction. An exception to this process is the Lower San Joaquin River Flood Control Project that was designed and constructed to federal standards by the State of California (substituting physical works for acquisition of more costly flowage easements required for the authorized federal project).

Since the beginning of federal participation, both the Sacramento River and San Joaquin River flood systems have been constructed, expanded, improved, and repaired through a series of subsequent federal authorizations. Components of these systems, for which the Central Valley Flood Protection Board (formerly the Reclamation Board) or DWR has provided the assurances of nonfederal cooperation to the United States, are considered the State-federal flood protection system in the Central Valley.

### ***1.3 Project Levee Operation and Maintenance Responsibilities***

As construction of federally authorized project units was completed, project transfer letters were submitted by USACE to the Board for review and acceptance. Project levees and flood protection works for which the State of California had provided the assurances of non-federal cooperation were formally accepted by the Board on behalf of the State for operation and maintenance in accordance with federal regulations.

Local public entities within the Sacramento and San Joaquin river systems have the responsibility, liability, and duty to maintain and operate the levees and other flood protection works on a day-to-day basis in accordance with assurance agreements, guidelines provided in the USACE Standard O&M Manuals, and each applicable supplement for individual project units. The only flood protection features for which operation and maintenance are not performed by local entities are those SRFCP works maintained by DWR in accordance with Water Code §8361, and those facilities within Maintenance Areas (MA) that are maintained by DWR, with local beneficiaries paying costs under Water Code §12878. For the Sacramento River Flood Control Project, the LMA responsibilities were set forth in Water Code §8370 with the exception of enumerated works identified under Water Code §8361 and those for which provision is made by federal law. Flood protection project responsibilities in the San Joaquin River basin are based upon assurance agreements between the Board and each LMA.

Currently, operation and maintenance responsibilities for the State-federal Flood Protection System levees in the Central Valley are carried out by 107 individual State and local maintaining agencies.

Each unit of the State-federal Flood Protection System is described in a supplement to the respective USACE Standard O&M Manual. These supplemental manuals serve as a guide to assist each LMA in carrying out its responsibilities for levee maintenance. Section 4 of the Standard O&M Manual and Section 2 of the supplements describe some of the standards to be met by LMAs in the performance of their routine maintenance.

#### **1.4 Project Levee Operation and Maintenance Requirements**

Title 33 of the Code of Federal Regulations, Section 208.10 (33 CFR 208.10) outlines federal regulatory requirements for the maintenance and operation of structures and facilities that comprise the State-federal Flood Protection System.

33 CFR 208.10 provides general operation and maintenance guidance to obtain the maximum benefits for the following features:

- a) Structures and Facilities
- b) Levees
- c) Floodwalls
- d) Drainage
- e) Closure Structures
- f) Pumping Plants
- g) Channels and Floodways

Additionally, Standard and Supplement O&M Manuals were prepared by USACE, Sacramento District, for project levees and flood protection works in the Central Valley.

A Standard O&M Manual was published for the Sacramento River Flood Control Project in May 1955, and a Standard O&M Manual was published for the Lower San Joaquin River Levees, Lower San Joaquin River and Tributaries Project in April 1959. The purpose of these Standard O&M Manuals is to present general information for use by local interests who maintain and operate the various geographical units comprising the Projects. Detailed design and operation and maintenance information for each individual Project unit was furnished under separate supplemental manuals, which were prepared and published after completion of the construction work within each Project unit.

## 2 PROJECT LEVEE INSPECTIONS

This section describes the general levee inspection requirements and other constraints that the State must consider in the application of its inspection cycles, inspection criteria, maintenance guidelines, and overall rating methodology.

### 2.1 *Project Levee Inspection Requirements*

Title 33 of CFR, Navigation and Navigable Waters, Section 208.10 (33 CFR 208.10) outlines the federal requirements for the maintenance and operation of structures and facilities that comprise the State-federal Flood Protection System, including associated periodic inspection requirements. Title 33 of CFR Section 208.10 states that:

- Inspections are required following high water events.
- Inspections are required at intervals of no longer than 90 days.
- 33 CFR 208.10 can be viewed at:  
[http://www.access.gpo.gov/nara/cfr/waisidx\\_06/33cfr208\\_06.html](http://www.access.gpo.gov/nara/cfr/waisidx_06/33cfr208_06.html)

DWR implements this as:

- The LMAs and DWR patrol and inspect all project levees during high water events.
- Four quarterly inspections are required per year.

DWR performs major, comprehensive levee inspections in the spring and fall. The pre-flood-season fall inspection serves as the annual inspection, for which an annual maintenance rating (overall rating) is determined for each LMA. The LMAs are required to perform summer and winter inspections and are presently required to report the condition of their system in relation to the previous DWR inspection results. They do so by describing any changes in the condition of the system (since the last DWR inspection) or by reporting that none have occurred. The findings of these inspections are to be reported to the Chief Engineer of the Board through DWR's FPIIB. Because of the reporting requirements of Assembly Bill 156, the LMAs have now begun to conduct and report more detailed inspections since September of 2008. The comprehensive annual report (a result of AB 156) that contains the 2008 *LMA inspection* results can be viewed at: <http://cdec.water.ca.gov/lma.html>.

More specific levee operation, maintenance, and periodic inspection requirements and checklists for project levees within the State-federal Flood Protection System can be found in the Standard O&M Manual and in the individual supplemental O&M Manuals.

### 2.2 *Levee Inspection Criteria*

DWR used the Checklist (the USACE Flood Damage Reduction System Inspection Report form) as the basic criteria for its fall 2007 and 2008 inspections. However, strict application of the Checklist criteria, considering the unique environmental conditions of vegetation and encroachments on California levees, would have resulted in almost

universally unacceptable ratings throughout the System without providing any overall benefit to the system. To encourage continued overall maintenance of the flood protection system by LMAs, DWR applied interim criteria for vegetation and encroachments aimed at improving public safety and the quality of maintenance.

### **2.2.1 Interim Inspection Criteria - Vegetation**

DWR inspects vegetation on levees based upon USACE's checklist criteria with exceptions listed below.

- DWR inspectors will evaluate and rate all vegetation within the top 20 feet (slope length) of the waterside hinge point (intersection of crown and slope), anywhere on the landside slope, and within 10 feet of the landside toe. Riparian vegetation and other vegetation beyond 20 feet from the waterside hinge point are not evaluated or rated at present.
- Grass and weeds on the landside and upper waterside must be maintained at a height of less than 12 inches.
- Trees must be trimmed at least five feet above the ground or 12 feet above the ground over roadways.
- Trees must be thinned sufficiently to allow clear visibility and access for flood fight operations.
- Brush and woody vegetation must be trimmed, thinned, or removed to allow clear visibility and access for flood fight operations.
- Minimal densities of vegetation not meeting these criteria were rated as Minimally Acceptable.
- Significant densities of vegetation not meeting these criteria were rated as Unacceptable.
- Elderberries were evaluated using the same criteria as trees or other vegetation.

These criteria are shown in Figures 2-1 and 2-2. The criteria protect levee operability and integrity by requiring open visibility and access to those portions of the levee most susceptible to high water damage while retaining vegetation that possess both habitat and environmental value and may have a positive effect on levee integrity. These criteria may change as the Central Valley Flood Protection Plan is developed.

# DWR Interim Vegetation Inspection Criteria for Standard Levees, October 2007

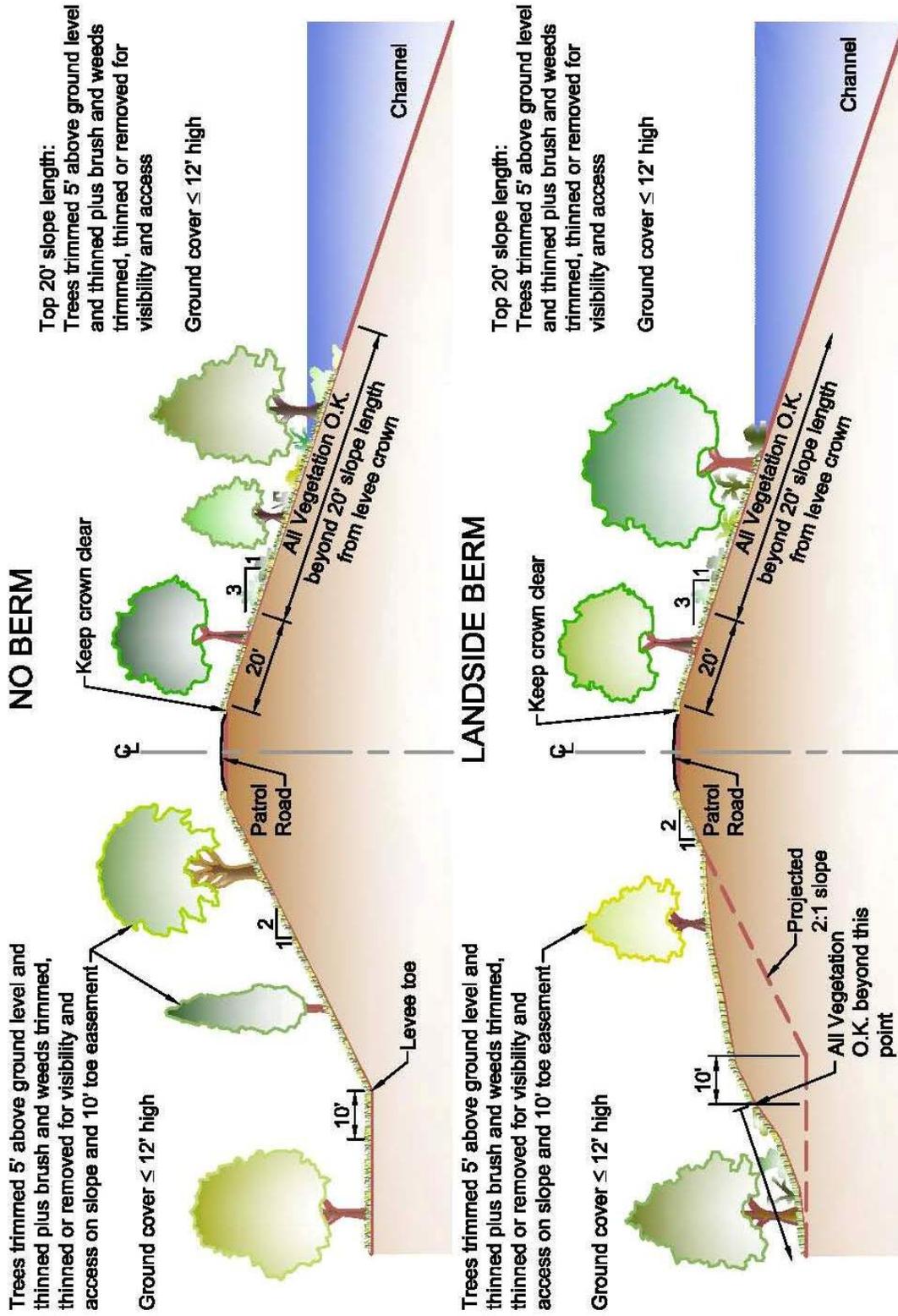


Figure 2-1

# DWR Interim Vegetation Inspection Criteria for Standard Levees, October 2007

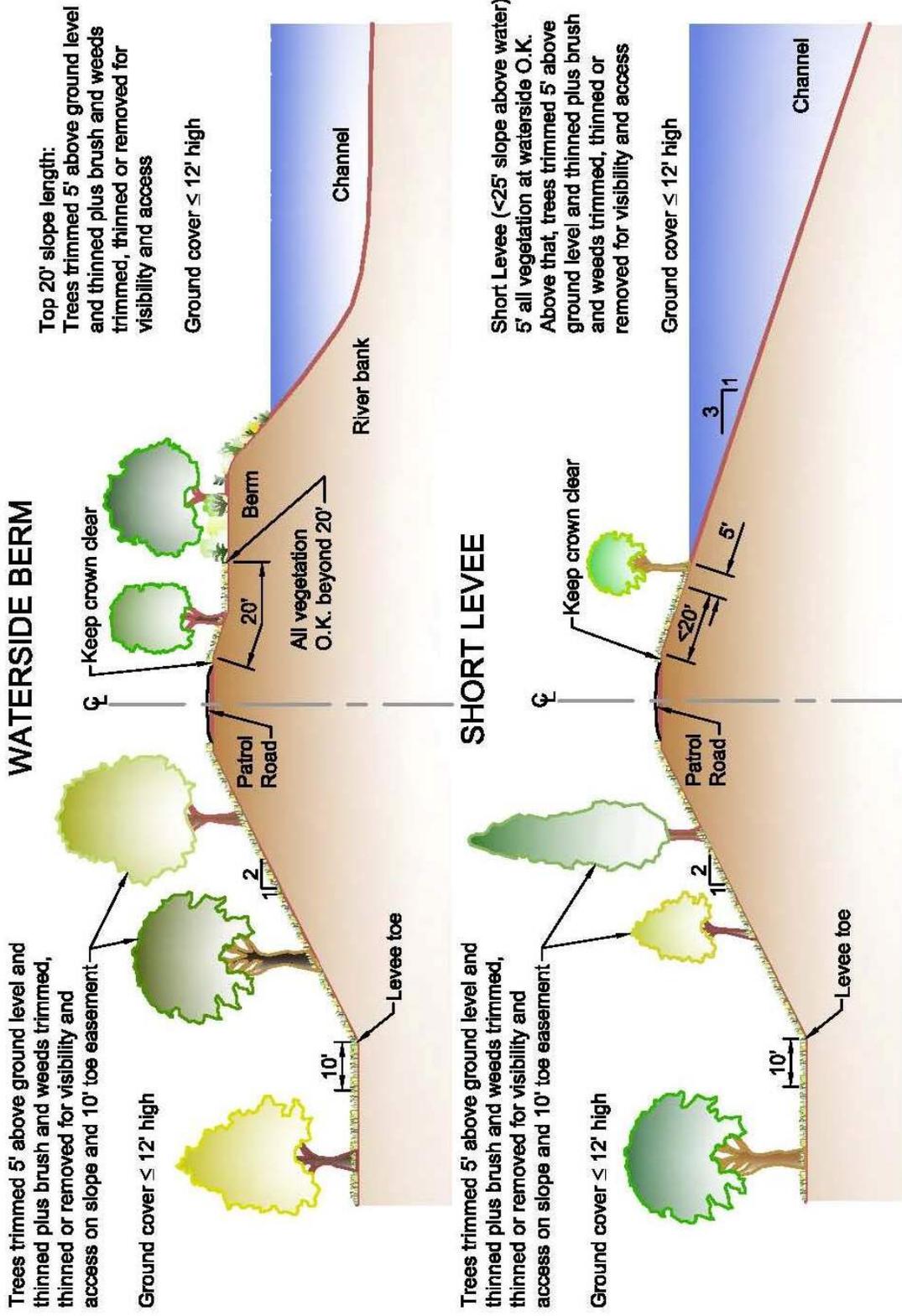


Figure 2-2

## 2.2.2 Interim Inspection Criteria - Encroachments

Past USACE inspections identified encroachments that posed a threat to the integrity of the levee, or blocked visibility or access to the levee as unacceptable. DWR inspectors followed a similar approach during their 2007 and 2008 fall inspections.

The DWR approach included documenting and rating three types of encroachments:

- a) Encroachments that threaten levee integrity.
- b) Encroachments that are inappropriate for being on the levee, such as trash, prunings, abandoned equipment, etc.
- c) Encroachments that obstruct visibility and access.

The first two are to be rated as either Minimally Acceptable (M) or Unacceptable (U). These two types of encroachments *are included* in the overall ratings and should be corrected by the LMAs.

The third type of encroachment that the USACE identified as unacceptable may be beyond the current authority of the LMAs to correct or remove because the encroachment may be Board permitted or have other factors associated with it that prevent LMAs from taking action. In 2007, using the same *levee sections* identified in Figures 2-1 and 2-2, and described in section 2.2.1 for vegetation, DWR inspectors broadly recorded the location, length, and type of all encroachments that could obstruct visibility or access, identifying 129 miles of Partially Obstructing (PO) and 7 miles of Completely Obstructing (CO) encroachments. These PO and CO encroachments are *not included* in the overall ratings; instead, they are identified to generate an inventory of those encroachments that the USACE has, in the past, found to be unacceptable and those encroachments that could affect the operation of the system. The permit status of these encroachments has not been determined. In 2008, DWR performed more detailed recording of the locations, lengths, and types of encroachments that actually obstruct visibility or access and identified approximately 43 miles of PO and 12 miles of CO encroachments.

Now that encroachments have been identified, the Board, USACE, the LMAs, and DWR have a better opportunity to determine how to address these encroachments.

## 2.3 Levee Inspection Methodology

This section conveys the rating method (developed in 2007) and the associated maintenance guidelines that are applied by the Inspection Section of the FPIIB to generate the *overall* LMA ratings which are a representation of the LMAs' annual levee maintenance practices.

### 2.3.1 The Rating Method

USACE Document ER 500-1-1, paragraph 5-5.b (2) (b) defines the following project condition as presented in EP 500-1-1, Table 5-2:

- Acceptable – No immediate work required, other than routine maintenance. The flood protection project will function as designed and intended, with a high degree of reliability, and necessary cyclic maintenance is being adequately performed.

- Minimally Acceptable – One or more deficient conditions exist in the flood protection project that need to be improved or corrected. However, the project will essentially function as designed with a lesser degree of reliability than what the project could provide.
- Unacceptable – One or more deficient conditions exist that may *prevent* the project from functioning as designed, intended, or required.

USACE is in the process of modifying the levee inspection checklist and has indicated that new requirements for maintenance and inspection of flood protection works are forthcoming.

In the past, DWR arrived at each overall unit and LMA rating by making an estimation of the number, expanse, and seriousness of the deficient conditions found during the annual inspection and arriving at one of the above project condition ratings. This system was subjective and possibly inconsistent. It did not always reflect the possible negative effect of the combined deficiencies.

Under the current USACE ratings directive, an LMA with a single Minimally Acceptable deficient condition may have received the same overall Minimally Acceptable rating as an LMA with dozens of Minimally Acceptable deficient conditions throughout its length. DWR believes that the LMAs should be rated by their overall maintenance condition rather than just by the rating of their worst deficient condition.

- In 2007, DWR created a new methodology, whereby 2007 overall ratings were calculated using the percentage of an LMA's overall mileage receiving less-than-acceptable ratings. This is known as the threshold percent.
- This methodology has proven to be effective and was again applied for the 2008 inspection cycle.

Specifically, thresholds were established that determine the overall rating as shown below. If over 20 percent of the total LMA mileage was given a Minimally Acceptable rating, the overall rating was deemed Unacceptable. Since 12 main categories and numerous minor categories were inspected, with most receiving ratings for both the landside and the waterside (so double the length of the levee), it was possible for a poorly maintained levee to receive Minimally Acceptable or Unacceptable ratings for well over 100 percent of its length.

Table 2-1 and Figures 2-3 through 2-6 explain the rating method.

**Table 2-1: Overall Ratings Thresholds**

<p>A = Acceptable, M = Minimally Acceptable, U = Unacceptable</p>
<p><b><u>Only M ratings within Unit or LMA:</u></b></p> <p>Zero to &lt; 10 % M results in Overall A rating. 10% to &lt; 20% M results in Overall M rating. ≥ 20% M results in Overall U Rating.</p> <p>If <math>\frac{\text{Miles of M in Unit or LMA}}{\text{Total miles in Unit or LMA}} &gt; 0 \text{ but } &lt; 0.10</math>, Overall Rating = A</p> <p>If <math>\frac{\text{Miles of M in Unit or LMA}}{\text{Total miles in Unit or LMA}} \geq 0.10 \text{ but } &lt; 0.20</math>, Overall Rating = M</p> <p>If <math>\frac{\text{Miles of M in Unit or LMA}}{\text{Total miles in Unit or LMA}} \geq 0.20</math>, Overall Rating = U</p>
<p><b><u>Only U ratings within Unit or LMA:</u></b></p> <p>&gt; Zero to &lt; 5% U rating results in Overall M rating. ≥ 5% U rating results in Overall U rating.</p> <p>If <math>\frac{\text{Miles of U in Unit or LMA}}{\text{Total miles in Unit or LMA}} &gt; 0 \text{ but } &lt; 0.05</math>, Overall Rating = M</p> <p>If <math>\frac{\text{Miles of U in Unit or LMA}}{\text{Total miles in Unit or LMA}} \geq 0.05</math>, Overall Rating = U</p>
<p><b><u>Both M and U ratings within Unit or LMA:</u></b></p> <p>Correlation of Severity = COS =</p> <p><math>\frac{\text{Only M Threshold \%}}{\text{Only U Threshold \%}} = \frac{20\%}{5\%} = 4 = \text{COS}</math></p> <p>Multiply miles of U by COS of 4 and add to miles of M = M + 4U</p> <p>If <math>\frac{\text{Miles of M + 4U in Unit or LMA}}{\text{Total miles in Unit or LMA}} &gt; 0 \text{ but } &lt; 0.20</math>, Overall Rating = M</p> <p>If <math>\frac{\text{Miles of M + 4U in Unit or LMA}}{\text{Total miles in Unit or LMA}} \geq 0.20</math>, Overall Rating = U</p> <p><b>Example 1:</b> Unit length = 10.00 miles, M = 0.60 mile, U = 0.30 mile:  <math>4U = 4(0.30) = 1.20 \text{ miles}</math>. <math>M + 4U = 0.60 \text{ mile} + 1.20 \text{ mile} = 1.80 \text{ miles}</math></p> <p><math>\frac{M + 4U}{\text{Total unit miles}} = \frac{1.80 \text{ miles}}{10.00 \text{ miles}} = 0.18 &lt; 0.20</math> so Overall Rating = M</p> <p><b>Example 2:</b> Unit length = 10.00 miles, M = 1.10 mile, U = 0.30 mile:  <math>4U = 4(0.30) = 1.20 \text{ miles}</math>. <math>M + 4U = 1.10 \text{ miles} + 1.20 \text{ miles} = 2.30 \text{ miles}</math></p> <p><math>\frac{M + 4U}{\text{Total unit miles}} = \frac{2.30 \text{ miles}}{10.00 \text{ miles}} = 0.23 &gt; 0.20</math> so Overall Rating = U</p>

## OVERALL MAINTENANCE RATING FLOW CHART

**Step 1: DWR Inspections**

DWR inspectors document location and length of maintenance deficiencies (categories listed below).

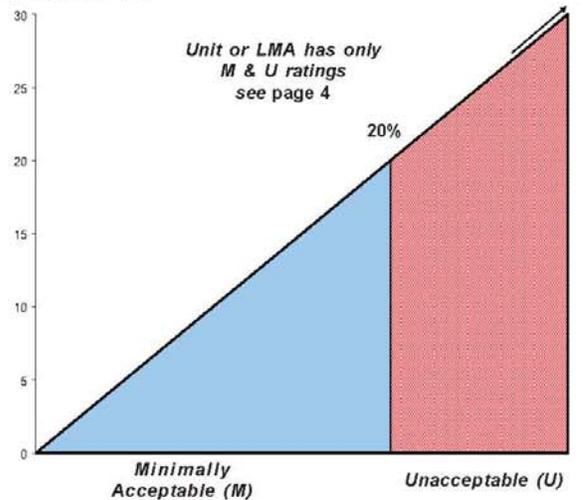
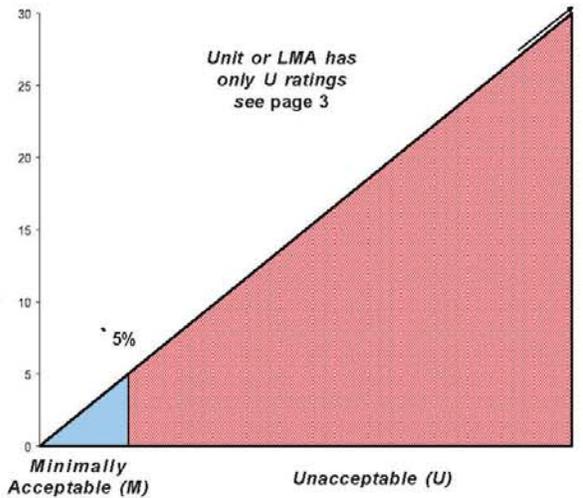
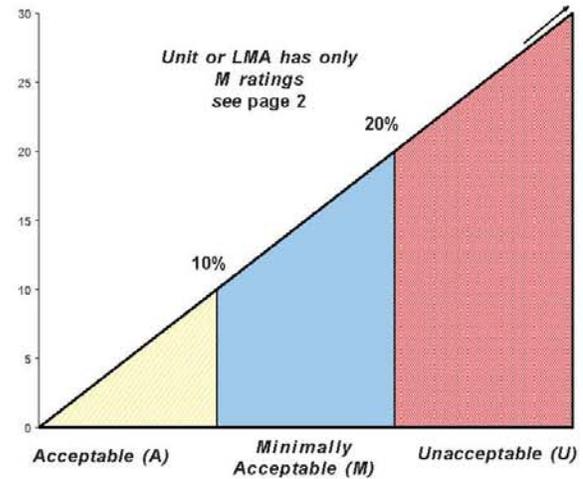
Deficiencies are rated either as **Minimally Acceptable (M)** or **Unacceptable (U)**. Total mileages of each rating in each unit and LMA are calculated and divided by total unit and LMA length to determine percentages of M or U. Percentage thresholds are then applied to determine overall unit and LMA ratings as shown at right and on subsequent pages:

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**Rated Deficiency Categories**

- Vegetation
- Trim / Thin Trees
- Enchroachments
- Animal Control
- Slope Stability
- Erosion / Bank Caving
- Cracking
- Crown Surface/Depressions/Rutting
- Rip Rap Revetments
- Seepage / Sandboils
- Underseepage Relief Wells
- Repair Gates

**Step 2:  
Overall  
Levee  
Rating**



Overall Maintenance Rating  
Flow Chart  
Page 1

**Figure 2-3**

## OVERALL MAINTENANCE RATING FLOW CHART

### Unit or LMA has only (M) Minimally Acceptable ratings:

The total length of all Minimally Acceptable entries in a unit is calculated and divided by the length of the unit to obtain a percentage of total unit miles rated as M, which we refer to as a *mileage rating percentage*. These total percentages are then compared to thresholds established by DWR to determine the unit's overall rating. This process is repeated for all LMA ratings. The calculations are as follows:

From 0.01% to 9.99% M rating results in rating of A.

From 10.00% to 19.99% rating of M results in rating of M.

≥ 20.00% rating of M results in rating of U.

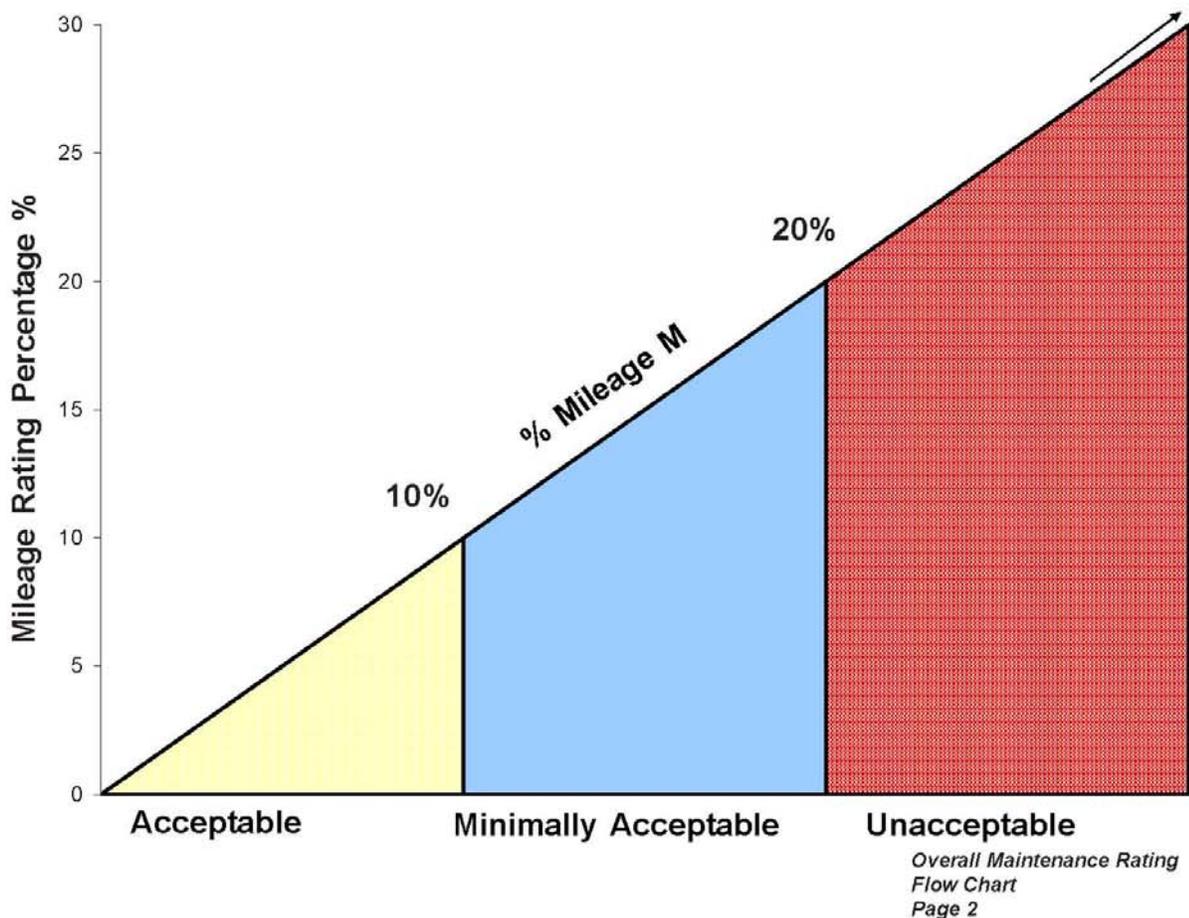


Figure 2-4

## OVERALL MAINTENANCE RATING FLOW CHART

### Unit or LMA has only (U) Unacceptable ratings:

The total length of all Unacceptable entries in a unit is calculated and divided by the length of the unit to obtain a percentage of total unit miles rated as **U**, which we refer to as a *mileage rating percentage*. These total percentages are then compared to thresholds established by DWR to determine the unit's overall rating. This process is repeated for all LMA ratings. The calculations are as follows:

From 0.01% to 4.99% U rating results in rating of M.

$\geq 5.00\%$  rating of U results in rating of U.

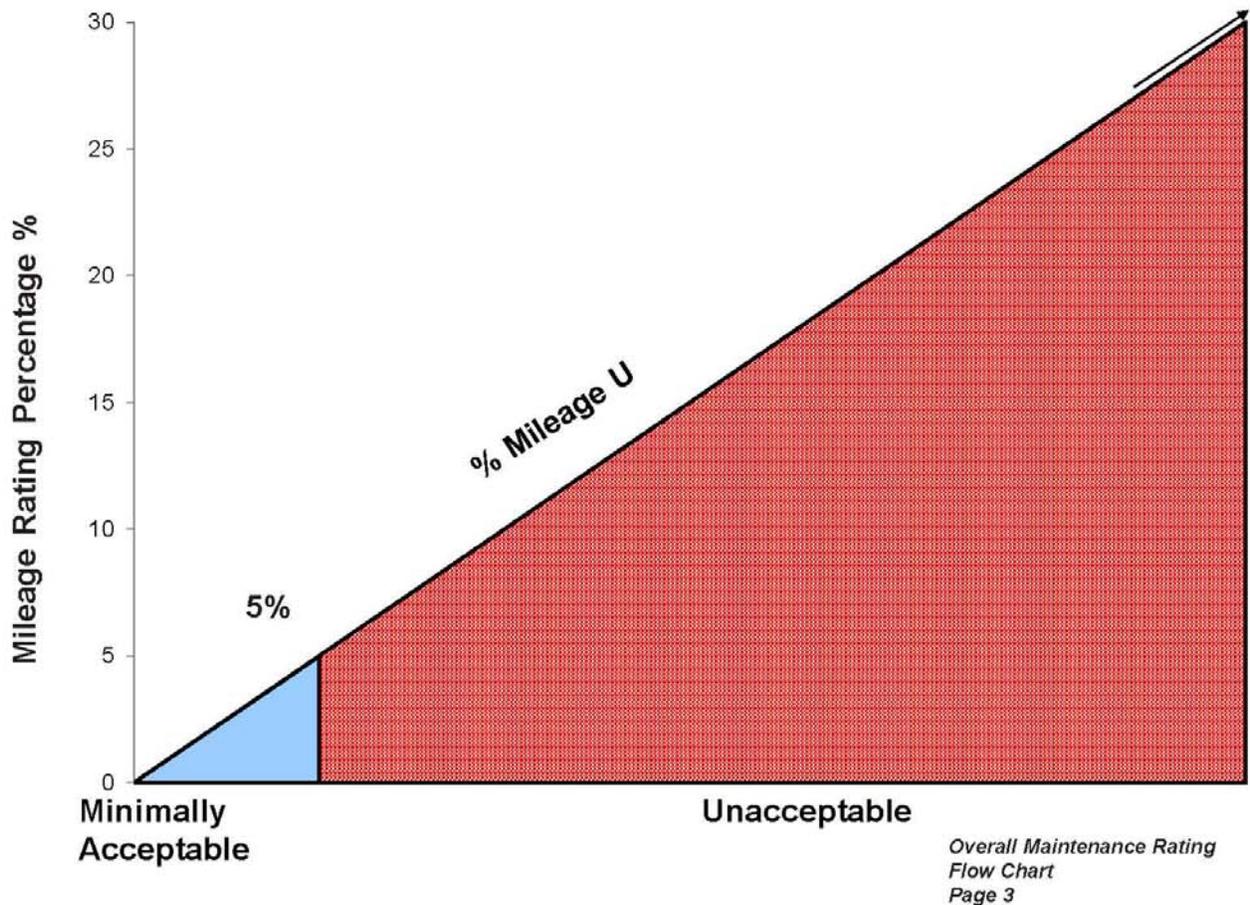


Figure 2-5

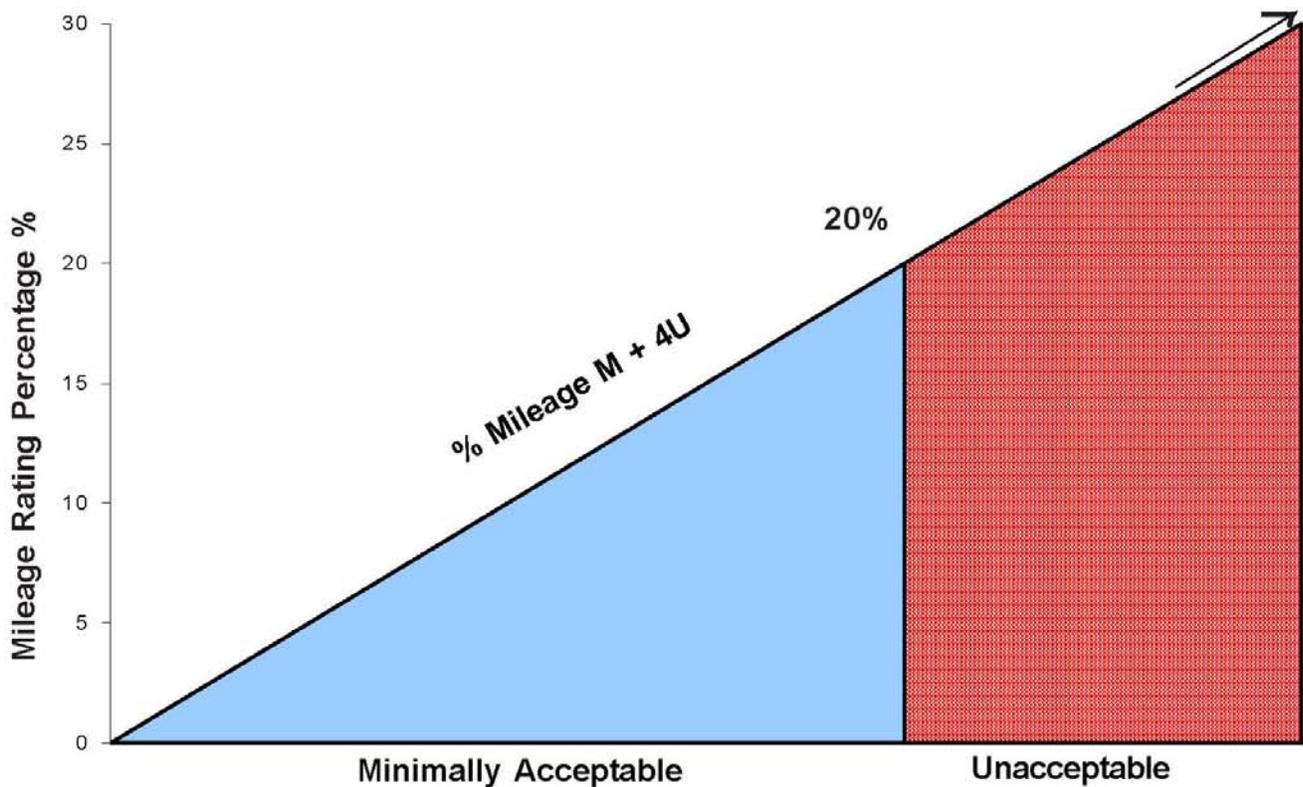
## OVERALL MAINTENANCE RATING FLOW CHART

Unit or LMA has both (M + U) Minimally Acceptable & Unacceptable ratings:

The total length of all Minimally Acceptable and Unacceptable entries in a group is calculated and divided by the length of the unit to obtain a percentage of total unit miles rated as **M + 4U**, which we refer to as a *mileage rating percentage*. These total percentages are then compared to thresholds established by DWR to determine the unit's overall rating. This process is repeated for all LMA ratings. The calculations are as follows:

0.01% to 19.99% total of (M + 4U) results in rating of M.

≥ 20.00% rating of (M + 4U) results in rating of U.



Overall Maintenance  
Rating Flow Chart  
Page 4

Figure 2-6

### **2.3.2 The Maintenance Guidelines**

When applying the ratings described in section 2.3.1, a number of factors pertaining to levee maintenance are considered. These factors are considered to be *maintenance guidelines* and they have been categorized and are listed below.

#### **Readiness for Flood Emergency**

Each LMA shall have an organized plan to effectively combat a flood situation. This should include the appointment of a superintendent to supervise and execute the plan, maintain a stockpile of standard flood-fighting equipment and materials, and have a network of handheld radios or cellular telephones for communication available while patrolling during a flood emergency.

#### **Adequate Levee Section and Grade**

Each LMA must perform the work necessary to maintain levee side-slopes, grade, and crown width to meet the standards for its particular reach of the levee system. Levee design standards are summarized on Plate 5.

#### **Adequate Encroachment Control**

Each LMA is held responsible for preventing the construction of, or requiring the removal of, any illegally encroaching structures or activities on the levee or within the ten-foot regulatory easement at the landward toe of the levee. Also, the maintaining agency must stop any unauthorized modifications or alterations to the levee. If any person or organization deems any construction or modification necessary within the levee regulatory easement, that person or organization must apply for an encroachment permit. The permit may only be issued by the Board. Failure of the LMA to control unauthorized encroachments can threaten the integrity of the levee, interfere with levee patrol visibility, hamper a flood fight and, therefore, be cause for downgrading the LMA's annual rating in this report.

- The presence of 43 miles of PO encroachments and 12 miles of CO encroachments recorded during the 2008 inspection indicates the difficulty in controlling encroachments.
- LMAs are generally reluctant to attempt to force the removal of illegal encroachments.

#### **Vegetation**

Each LMA shall have a program to selectively control vegetation on the levee slopes and in rock revetments. This requirement provides visibility for inspection and patrol and prevents interference with flood-fighting activities. Some vegetation on oversized levees is permitted in accordance with standards as set forth in CCR, Title 23. However, present DWR interim vegetation inspection criteria allow vegetation on standard-sized levees as well, provided that visibility and flood fight capabilities are maintained. Both water-side and land-side slopes are rated for vegetation and

obstructions. An un-maintained band of vegetation is allowed anywhere beyond 20 feet (slope length) from the waterside hinge (intersection of levee slope and crown – see Figures 2-1 and 2-2).

### **Rodent and Animal Control**

It is imperative that each LMA have a rodent control program. Rodent burrows can weaken the structural integrity of a levee by creating a seepage path through the levee. Diligent efforts to eradicate burrowing animals are a necessity, and eliminating them from an infested levee is extremely difficult. Control of these animals must be pursued frequently and persistently to ensure safety of the levee during high water events. Effective filling of the burrows is necessary to maintain the integrity of the levee. This category also includes effective control of grazing animals on the levee or easement.

### **Seepage/Boils**

Seepage under or through the levee can cause boils, leading to erosion and possible piping failure of the foundation or structure of the levee. Seepage and boils must be identified, monitored, controlled, and corrected as quickly and effectively as possible.

### **Slope Stability and Repair of Cracks, Erosion, and Caving**

Each LMA shall maintain slope stability and repair cracks, flow current or wave wash erosion, and caving or other structural problems. Timely repair of these problems is critical. Failure to address slope stability problems and repair cracks, erosion, or caving could lead to levee failure.

The LMA superintendent is required to report to the Board's Chief Engineer any suspected or known structural abnormalities found during his inspections. Such un-repaired structural problems are also cause for downgrading of the LMA rating.

### **Condition of Rock Revetment**

Each LMA shall make all repairs to scour, wash, settlement, or failure of any portion of rock revetments. Rock revetments have been installed at locations where stream flow conditions indicate the need for such protection. Early detection and prompt repair will result in a minimum of effort and reduce the cost to restore the revetment.

### **Condition of Levee Crown and Roadway**

Each LMA is required to keep crown roadways shaped and graded to provide proper drainage and all-weather access. Repair of ruts and addition of gravel ensures a serviceable road under adverse conditions.

### **Condition of Pipes and Interior Drainage System**

Each LMA must examine all structures situated through, in, or on the levee for stability and structural soundness and record its observations twice annually. All component

parts must be examined for proper operation and reliability before the start of each flood season. New structures should be installed or older structures repaired only in accordance with adopted Board standards and under the supervision of qualified Board personnel. Defective structures must be repaired, replaced, or removed immediately. Although maintenance and repair of pipes and other structures passing through a levee are the responsibility of the owner (e.g., a farmer owning an irrigation pipe), the LMA is responsible for inspecting the pipes for corrosion, collapse, valve integrity, seepage, and any other condition that could threaten the integrity of the levee. Because of its full-time presence, the LMA is most able to discover and identify actual and potential problems and should make all efforts to immediately notify DWR of any problems found and thereafter include the problems on their inspection reports until they are resolved. DWR works with the Board to require the timely repair or removal of pipes or other structures that threaten the levee integrity.

### **Concrete Floodwalls / Closure Structures**

In some instances, a portion of a levee is not built to the design height of the rest of the levee. A floodwall, usually either concrete or driven piling, is built to provide necessary hydraulic capacity. In some cases, due to space constraints, a floodwall may be constructed in lieu of a levee. Where a roadway or railroad passes through a levee or floodwall, a closure structure is built on either side of the roadway to hold gates or barriers to be installed for use during high water events. Floodwalls, closure structures, gates, and barriers must be properly maintained, structurally sound, and of proper height and design. Gates and barriers and installation paths must be readily accessible for timely installation and dependable performance.

### **2.3.3 Combining Criteria, Maintenance Guidelines and Methodology**

In the field, each inspector documents the location, length, and type of maintenance category (see the guidelines listed above) giving a rating to each category found to be deficient in accordance with the established ratings *criteria* of section 2.3.1 and 2.3.2. In any field inspection process, there will be some inherent subjectivity. However, DWR believes that training, the use of the new database driven inspection software, new hardware, and the inclusion of the ratings *criteria* on the inspectors' field computers have led to more accurate and consistent ratings - which are provided by the inspectors themselves. Further, the new *methodology* of determining *overall unit and LMA ratings*, which is accomplished by the methods described in section 2.3.1 and Table 2-1 and Figures 2-3 through 2-6 has resulted in much more consistent and objective overall ratings.

## **2.4 Inspection Reporting**

Individual levee mile inspection reports that summarize findings and identify deficiencies are distributed to each LMA after the spring and fall DWR inspection cycles. These reports are to be used by LMAs to scope and prioritize maintenance and improvement efforts, and the LMAs have been instructed to use these reports as a baseline for their summer and winter inspections. When requested, DWR levee inspectors may accompany LMAs on joint summer or winter inspections to discuss non-compliance and needed

improvements. Spring and fall reports are submitted to USACE and the Board. Monthly updates and an annual report are also submitted to the Board.

## **2.5 Channels and Structures Overall Rating Criteria and Method**

The following criteria have been applied to the inspections of Channels and Structures to determine the overall ratings for these components of the Flood Protection System:

**Step 1).** Structures, channels and pumping plants (flood protection works) are first rated by the inspector in the field. During the inspection, the inspector refers to USACE rating criteria and USACE designated categories which are specific to the flood protection work under inspection. For example, channels are rated for five designated categories which are: Vegetation and Obstructions, Encroachments, Revetments and other Structural Appurtenances, Shoaling, and Erosion. Structures and pumping plants have more categories than channels and not every category will be applicable to every structure or pumping plant. The inspector must assess an initial rating of A (Acceptable), M (Minimally Acceptable), U (Unacceptable), or NR (Not Rated) to each category that is applicable to the flood protection work under inspection. Each category is weighted equally as a threat to the flood protection works capacity. It is also possible for an inspector to assess multiple ratings to a single category, for example, erosion may be detected and rated at multiple locations while inspecting one channel\*.

**Step 2).** In the office, a numeric total is obtained for each flood protection work by valuing each rating given to each of the USACE designated categories. The ratings are valued as follows: A is given one point, M is given two points, U is given three points and NR is given zero points. Note that if a category is not applicable to a flood protection work, then it should not be considered in the overall rating; hence, the zero point value for the NR rating.

**Step 3).** This total is then divided by the total number of categories that were found to be applicable in the field to calculate the average value.

**Step 4).** Lastly, an overall rating of A, M, or U is found by determining which range that average value falls within. The ranges are:  $A \leq 1.4$ ,  $1.4 < M \leq 2.4$ ,  $2.4 < U \leq 3.0$ .

**\*Note:** Any category that was assessed multiple entries in the field is reduced to a single entry for that category by applying the method above to the group of ratings applied to that category. Lastly, if a category was not inspected or rated in the field, then it cannot be included in the overall rating. This is why NR is valued at 0 points and the number of categories used in step 3 will be reduced accordingly.

## **2.6 Inspection Program Improvements & Accomplishments**

As a part of an ongoing effort to improve the efficiency, quality, and consistency of inspections while encouraging improved maintenance practices throughout the system and fostering positive relationships with the LMAs and residents, DWR improved its practices in the following ways:

- DWR continues to incorporate USACE inspection nomenclature and criteria for maintenance ratings into the DWR inspection program and implemented a self-inspection program that requires LMAs to inspect their levees in the summer and winter, while DWR continues inspecting in the spring and fall. DWR has extended this nomenclature incorporation into the channel and structure inspections.
- DWR continues to refine the rating criteria for levee and bank erosion in the San Joaquin System that it previously developed.
- DWR inspectors continue to identify and document levee vegetation that requires trimming and thinning of trees and other vegetation, and promptly advises LMAs to take corrective action to allow flood fight access and visibility.
- Beginning with the spring 2008 inspection, DWR used a newly created inspection database program allowing efficient documentation of system conditions and compatibility with USACE National Levee Database reporting requirements.
- DWR continues to document the location of maintenance deficiencies with increasingly accurate methods. New survey class GPS units were used during the fall inspections to give more accurate latitude and longitude data.
- DWR continues to train the inspectors to improve the consistency and accuracy of the maintenance ratings assigned.

In addition to the above inspection activities, DWR will implement the following improvements:

- DWR will ensure that its inspection database is compatible with the need to provide information about levee conditions during high water and emergency events.
- DWR will develop a geo-referenced and database recorded inspection program by fall 2010 to become more consistent with USACE inspection methods and more comprehensive and efficient in inspection procedures.
- DWR expects to implement additional changes to the inspection program as existing USACE policies are clarified over time, as new policies are developed, and as other levee management issues arise.

### **3 2008 LEVEE WATERSIDE EROSION SURVEYS**

Waterside erosion surveys of the Sacramento River system have been conducted since 1998 by Ayres Associates under USACE contract and DWR sponsorship. The primary purpose of these surveys is to: (a) monitor and document the condition of previously identified erosion sites; (b) inventory any new erosion sites; and (c) identify critical erosion sites that appear to be an imminent threat to the structural integrity of the State-federal Flood Protection System.

The FPIIB began conducting waterside erosion surveys of the San Joaquin river portion of the State-federal Flood Protection System project levees in September 2006 to create an inventory of erosion sites and identify critical erosion sites that appear to be an imminent threat to the structural integrity of the State-federal Flood Protection System. Typical levee inspections occur from the crown of the levee but erosion on the slope and beyond is sometimes not visible from that vantage point. Surveys were completed by boat in the areas that were navigable. In areas that were not navigable or where wide berms obstructed visibility, surveys were completed on land.

LMAs were informed by FPIIB through a letter in November 2007 that DWR is rating erosion sites, but is excluding erosion sites repaired or planned for repair under PL 84-99 or critical repairs programs. Agencies were requested to inform FPIIB if they had repaired any sites other than the PL 84-99 or critical sites by December 7, 2007. Sites reported as being repaired were not included in overall rating determinations. The 2008 Erosion Survey report is expected to be released in April 2009.

#### **3.1 Erosion Survey Procedures**

Since the 2007 survey, the FPIIB has committed more resources to improve the erosion survey program. New survey equipment such as a clinometer and a more accurate GPS unit were purchased. A 23-foot jet boat was also purchased to support water-based surveys. Additional FPIIB personnel were assigned to expand the survey coverage. Much of the survey procedure and rating criteria were reviewed, scrutinized, and improved.

Prior to the field surveys, a master list of the most current inventory of erosion sites was reviewed. This list was used to locate previously identified erosion sites. Any new identified erosion sites were added to the inventory.

FPIIB personnel committed 11 days to complete the 2008 field survey of the San Joaquin River System. Field surveys were carried out during the following dates; July 22, August 12, August 18-20, August 25-27, September 10, October 20-22, and November 4-5, 2008. A DWR boat was used in navigable areas and where wide berms were not an issue. Otherwise, a land survey was carried out using a 4x4 off-road vehicle. Of the 57 documented sites in the 2007 Inventory, six sites had been repaired, and three sites previously not rated were given a rating. Four additional sites were added to the inventory. Twenty-three out of the 102 PL84-99 sites were reported to be repaired.

Figure 3-1 shows the current erosion sites in the San Joaquin River basin as red dots.

# Map of Jan Joaquin River Erosion Sites

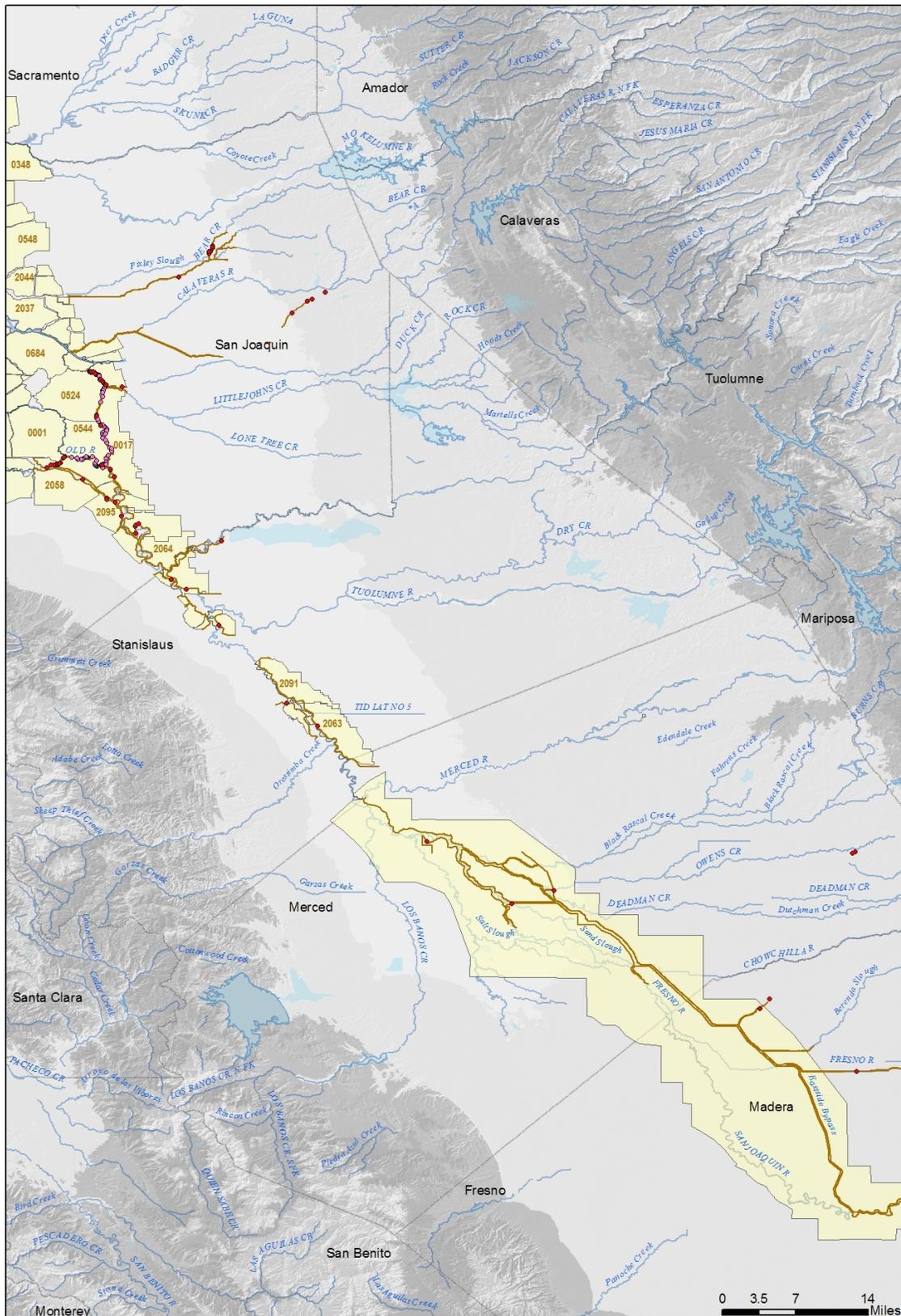


Figure 3-1

### **3.2 Erosion Survey Criteria and Site Data Collected**

Land-based surveys were done by using a 4x4 vehicle on levee access roads. Water-based surveys were completed using a 23-foot jet-driven boat. A portable Trimble GeoXT GPS receiver was used to locate and log erosion sites. Once on site, a field survey data form is used to collect specific data. It includes the following:

- River mile
- Levee mile
- Bank side
- GPS coordinates of levee crown at midpoint of the erosion site
- Estimated site length
- Location of erosion on bank (toe, lower slope, middle slope, upper slope, toe & slope)
- Scarp height
- Levee Slope
- Number of burrow holes on face of levee slope per 100 square feet
- Vegetation
- Upstream condition
- Downstream condition
- Comments and observation
- Digital photographs of the site

A site may be included in this erosion survey if it meets with one of the following two criteria:

- Bank erosion into the projection of the levee slope.
- The site was submitted by the local maintaining agency for PL84-99 assistance.

### **3.3 Erosion Survey Ratings**

The FPIIB developed the erosion rating criteria partially based upon the Ayres Associates Priority Site Ranking for Critical Erosion Sites on the Sacramento River Flood Control Levees Using Multiple Ranking Methodologies dated January 16, 2006. The criteria were partially modified and new criteria added to account for site conditions and to suit the type of data collected from the San Joaquin River System erosion surveys.

Following are the criteria used to rate erosion sites:

- Berm Width
- Length of Erosion

- Location of Erosion
- Severity of Erosion
- Burrow Holes
- Radius of Curvature
- Site Relative to Bend
- Vegetation Cover
- Seepage Potential

Each factor is given a point rating as defined in Table 3-1. The severity of erosion criteria is multiplied by a factor of two to account for its importance. All factors are evaluated at each site and given a score. The values for each site are combined arithmetically.

**Table 3-1: Score Sheet of Erosion Criteria**

<b>Criteria</b>	<b>Score Definition</b>
Berm Width	0 - Berm width of 30 ft or greater; 1 - 20 to 29 ft of berm; 2- 10 to 19 ft of berm; 3 - 5 to 9 ft of berm; 4 - 1 to 4 ft of berm; 5 - No berm width
Length of Erosion	0 - Less than 10 ft; 1 - 10 ft to 100 ft; 2 - 101 ft to 500 ft; 3 - 501 ft to 1000 ft; 4 - 1001 ft to 1500 ft; 5 - Greater than 1500 ft
Location of Erosion	0 - Upper slope; 1 - Middle slope; 2 - Lower slope; 3 - Toe; 4 - Toe & slope
Severity of Erosion(*2)	0 - Scarp height less than 1 ft; 1 - Scarp height between 1 to 2 ft ; 2 - Scarp height between 2 ft to 3 ft; 3 - Scarp height between 3 to 4 ft; 4 - Scarp height between 4 to 5 ft; 5 - Scarp height greater than 5 ft
Burrow Holes	0 - No holes; 1 - Holes within slope; 2 - Holes at toe
Radius of Curvature	0 - Greater than 5 or no curve; 1 - 4 to 5 range; 2 - 3 to 4 range; 3 - 2 to 3 range; 4 - 2 to 1 range; 5 - Less than 1.  Radius of Curvature = radius of meander bend divided by top width of channel flowing full.

<b>Criteria</b>	<b>Score Definition</b>
Site Relative to Bend	0 - Inside of bend; 1 - Straight reach; 2 - Just downstream of a bend; 3 - Outside of bend (greater than 90 degree interior angle); 4 - Outside of bend (90 degree turn); 5 - Outside of tight bend (less than 90 degree interior angle)
Vegetation Cover	0 - Dense vegetation (80-100% cover); 1 - Moderate vegetation (60-80% cover); 2 - Medium vegetation ( 40-60% cover); 3 - Mild vegetation ( 20-40% cover); 4 - Slight vegetation (up to 20% cover); 5 - No vegetation
Seepage Potential	0 - No seepage history; 5 - Seepage or sinkhole history

The scores from the above chart are totaled for each erosion site and the site is given a rating:

**Table 3-2: Erosion Site Ratings**

<b>Not Rated</b>	<b>Minimally Acceptable</b>	<b>Unacceptable</b>
A site that has a berm greater than 30 feet; or a site that does not contain enough information to be rated	A site that receives an average or less than the average is rated as M, or Minimally Acceptable.	A site that receives a score greater than the average is rated as U, or Unacceptable. This site is usually given a high repair priority over the M site, as it can be a serious deficiency that can fail during normal flow or in the next high water event.

DWR and other State, federal, and local entities are working to develop an erosion repair strategy that addresses environmental concerns from erosion maintenance and assigns responsibility for repair of different scales of erosion in the flood protection system.

The 2008 Erosion Survey of the San Joaquin River Flood Control System report contains further information regarding the erosion observed in the San Joaquin River basin and is available at <http://cdec.water.ca.gov/fsir.html>.

### 3.4 2008 Erosion Survey Results

While DWR conducts an erosion survey in the San Joaquin River Basin, the USACE contracts with Ayres to conduct an erosion survey of the Sacramento River Basin. The results of DWR's 2008 erosion survey can be found in Table 3-3 while the results of the 2008 Ayres erosion survey are located in Table 3-4.

**Table 3-3: 2008 San Joaquin River Basin Erosion Survey Results**

Local Maintaining Agency	2007 Erosion Sites	Repaired Sites	2008 New Sites
<b>Boat Survey</b>			
RD0001	2		
RD0017	2		
RD0404	8	1	2
RD0524	2		
RD0544	0		1
RD2062	9		
<b>Land Survey</b>			
RD1602	1	1	
RD2058	3	2	
RD2063	1		
RD2075	4		
RD2095	4		
RD2089	6		
RD2092	1		
RD2031	2		
RD2101	1		
Lower San Joaquin County Flood Control District	1		
San Joaquin Flood Control District	4		
Madera County FCWA	2		
Merced County Stream Group	4		
<b>Total</b>	<b>57</b>	<b>6</b>	<b>4</b>

**Table 3-4: 2008 Sacramento River Basin Erosion Survey Results**

<b>Local Maintaining Agency</b>	<b>2007 Erosion Sites</b>	<b>Repaired Sites</b>	<b>2008 New Sites</b>
LD0001G	1	1	
LD0001S	1		
LD0003	3		
MA0001	1		
MA0005			3
MA0009	4	1	
MA0013	2		
NA0001	4	2	
NA0002	2		1
NA0005	1		1
NA0008	5		
NA0016	9		3
NA0019	5		
NA0022	3	1	
RD0003	1		
RD0003	3		1
RD0070	7		1
RD0150	1		
RD0150	3		
RD0307			2
RD0341	1		
RD0349	4		
RD0501	1		
RD0501	2	1	1
RD0537	2		
RD0556	1		
RD0556	8		
RD0563	17		1
RD0755	1		
RD0784	2	1	
RD0784	1		
RD0900	5	1	1
RD0999	2		
RD0999	2		
RD0999	1		1
RD1000	1		
RD1000	4		
RD1001	1		1
RD1001	7		
RD1001	1		
RD1500	12		1

<b>Local Maintaining Agency</b>	<b>2007 Erosion Sites</b>	<b>Repaired Sites</b>	<b>2008 New Sites</b>
RD1600	4		
RD1660			1
RD2035	4		
RD2060	3	1	1
ST0001	5		
ST0002	1		
ST0003	1		2
ST0011	2		
ST0012	2		
<b>Total</b>	<b>154</b>	<b>9</b>	<b>22</b>

## **4 2008 LEVEE MAINTENANCE INSPECTION RESULTS**

2008 was the second year that levees were inspected using the USACE non-vegetation inspection criteria, DWR's interim vegetation criteria, and the revised overall rating method (Table 2-1.) The results of the 2008 inspection show that many LMAs made significant improvements since the 2007 inspection. DWR continues to improve the accuracy and usability of the tools and data it uses to inspect and rate LMAs.

In 2008 a total of 42 of the 107 LMAs were rated as Acceptable, 26 as Minimally Acceptable and 39 as Unacceptable. In 2007, 24 of the 107 LMAs were rated as Acceptable, 18 as Minimally Acceptable and 65 as Unacceptable. Nine LMAs improved from Unacceptable to Acceptable, 17 improved from Unacceptable to Minimally Acceptable, and 11 improved from Minimally Acceptable to Acceptable. Only two LMA's ratings decreased from Acceptable to Minimally Acceptable.

Figure 4-1 shows the number of LMAs with each rating for 2007 and 2008. As discussed above, the LMAs have generally improved significantly. Ratings for each LMA for 2007 and 2008 can be found in Table 4-1. Totals of the maintenance ratings can be found in Table 4-2. Figure 4-2 shows the number of LMAs whose rating improved, remained the same, or deteriorated. This figure clearly shows the trend of a general increase in maintenance.

Figure 4-3 shows the same information as Figure 4-1 but the LMAs are grouped by Sacramento River, San Joaquin River, and Miscellaneous basins. Figure 4-4 shows the same information as Figure 4-2 but is organized by the basin. Each of the three basin categories performed similarly.

### LMA Maintenance Rating Comparison

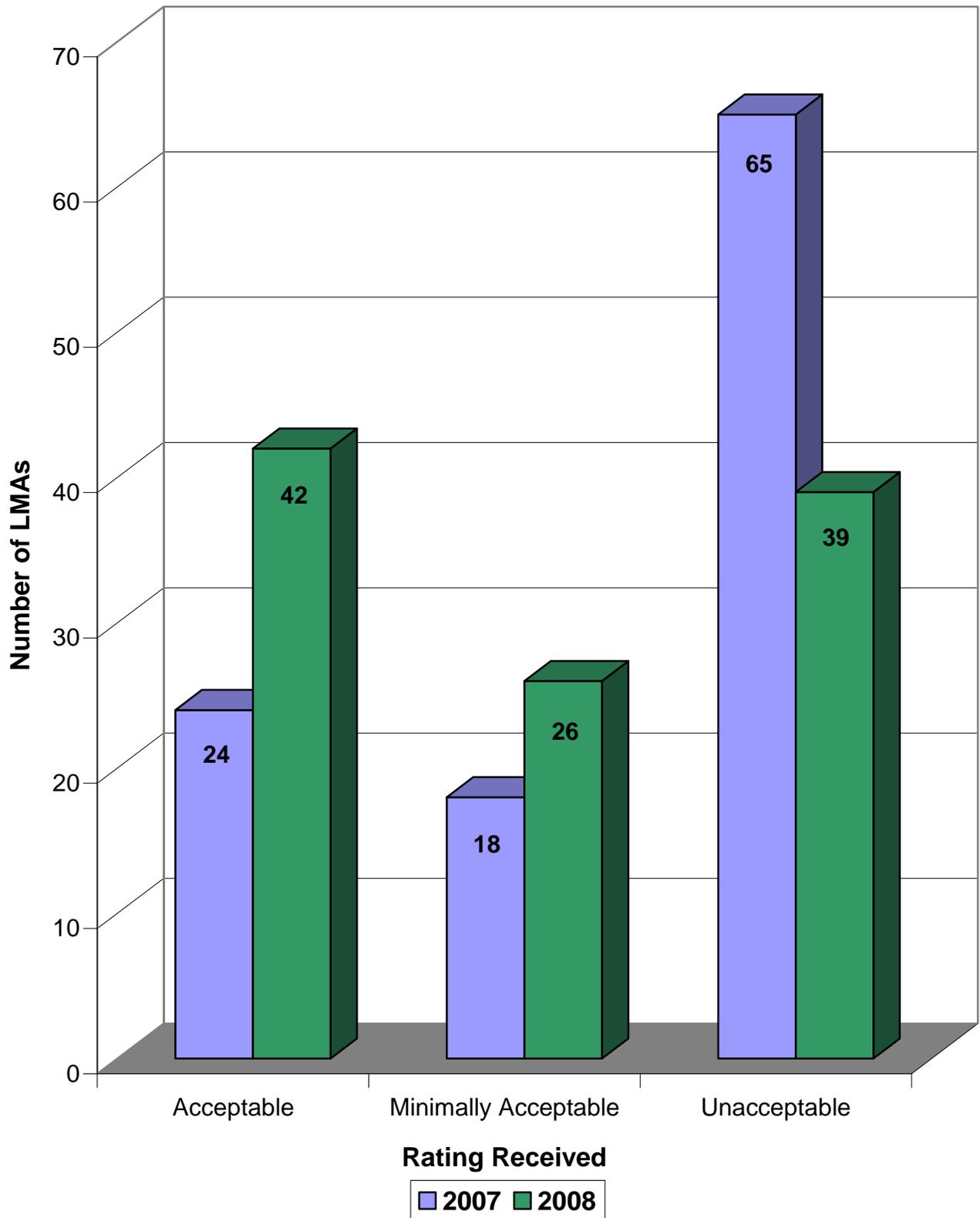


Figure 4-1

## LMA Maintenance Rating Changes From Fall 2007 to Fall 2008

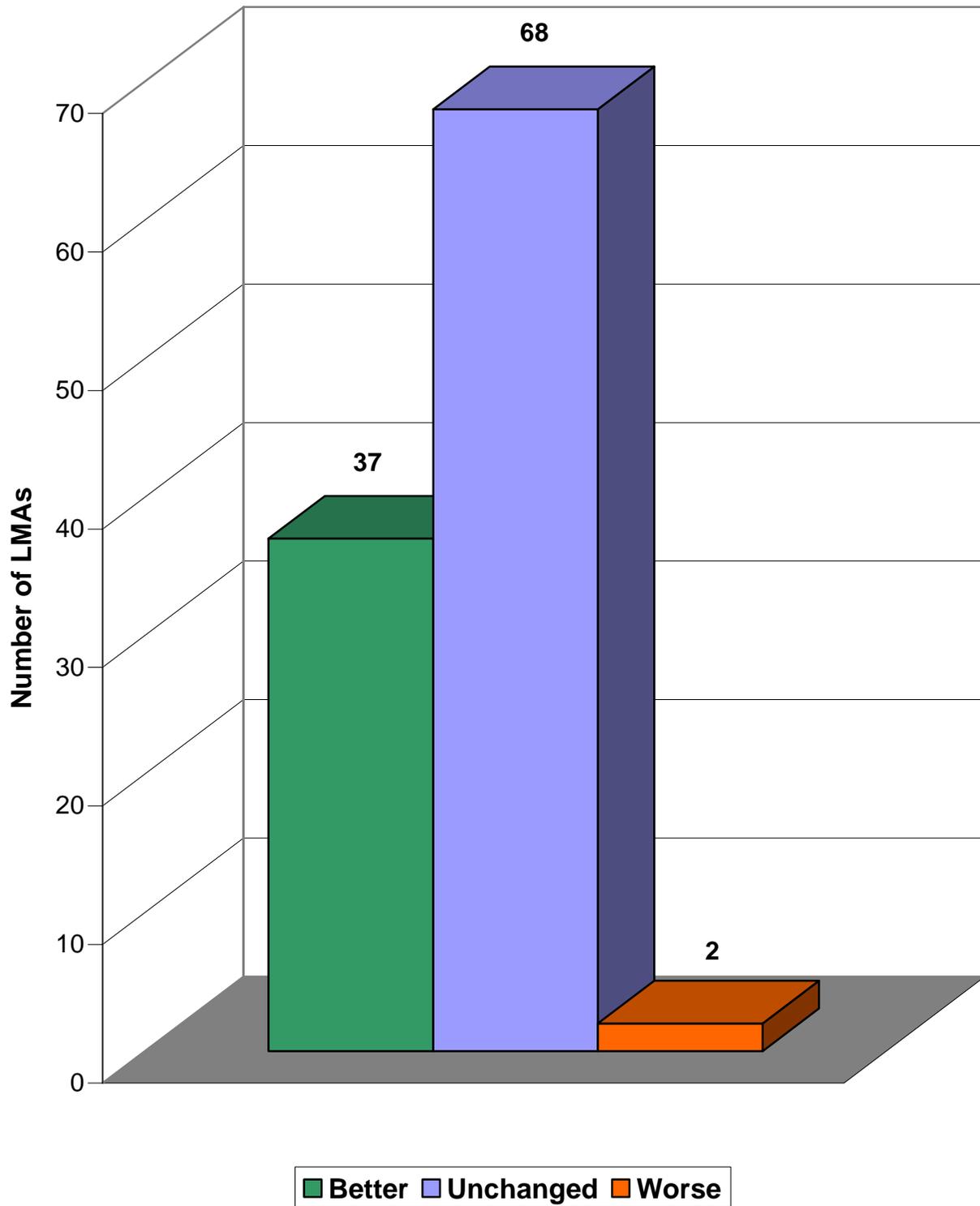


Figure 4-2

**Table 4-1: 2007 and 2008 Overall Maintenance Rating by LMA**

<b>LMA Short Name</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
LD0001G	Levee District No. 0001G (Glenn County)	U	M
LD0001S	Levee District No. 0001S (Sutter County)	M	A
LD0002	Levee District No. 0002	A	A
LD0003	Levee District No. 0003	A	A
LD0009	Levee District No. 0009	A	A
MA0001	Maintenance Area 0001	M	M
MA0003	Maintenance Area 0003	A	A
MA0004	Maintenance Area 0004	A	A
MA0005	Maintenance Area 0005	M	M
MA0007	Maintenance Area 0007	U	A
MA0009	Maintenance Area 0009	M	M
MA0012	Maintenance Area 0012	A	A
MA0013	Maintenance Area 0013	A	M
MA0016	Maintenance Area 0016	M	M
MA0017	Maintenance Area 0017	U	U
NA0001	American River Flood Control District	M	A
NA0002	Brannan Andrus Levee Maintenance District	U	U
NA0003	Butte County Public Works	A	A
NA0004	Marysville Levee Commission	M	A
NA0005	City of Sacramento	U	A
NA0006	Eastern Honcut Creek	U	U
NA0007	East Interceptor Canal	U	U
NA0008	Knights Landing Ridge Drainage District	U	M
NA0009	Lake County Watershed Protection District	M	A
NA0010	Lower San Joaquin Levee District	M	M
NA0011	Madera County FCWCA	U	U
NA0012	Solano County Public Works (Mellin Levee)	U	U
NA0013	Merced County Stream Group	U	U
NA0014	Murphy Slough at M&T Ranch	U	U
NA0015	Plumas County	U	A
NA0016	Sacramento River West Side Levee District	U	M
NA0017	San Joaquin County Flood Control District	U	M
NA0018	California Department of Fish and Game	A	A
NA0019	Tehama County Flood Control and Water Conservation District	U	M
NA0020	West Interceptor Canal	U	M
NA0021	Yolo County Public Works	U	M
NA0022	Yolo County Service Area 6	U	M
RD0001	Reclamation District No. 0001	M	A
RD0003	Reclamation District No. 0003	U	U
RD0010	Reclamation District No. 0010	U	U
RD0017	Reclamation District No. 0017	U	U
RD0070	Reclamation District No. 0070	M	A
RD0108	Reclamation District No. 0108	A	A
RD0150	Reclamation District No. 0150	U	M

<b>LMA Short Name</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
RD0307	Reclamation District No. 0307	U	U
RD0341	Reclamation District No. 0341	U	U
RD0349	Reclamation District No. 0349	U	U
RD0369	Reclamation District No. 0369	U	U
RD0404	Reclamation District No. 0404	U	U
RD0501	Reclamation District No. 0501	U	U
RD0524	Reclamation District No. 0524	U	U
RD0536	Reclamation District No. 0536	U	U
RD0537	Reclamation District No. 0537	U	A
RD0544	Reclamation District No. 0544	U	U
RD0551	Reclamation District No. 0551	U	U
RD0554	Reclamation District No. 0554	U	U
RD0556	Reclamation District No. 0556	U	U
RD0563	Reclamation District No. 0563	U	U
RD0755	Reclamation District No. 0755	U	U
RD0765	Reclamation District No. 0765	U	U
RD0784	Reclamation District No. 0784	M	A
RD0785	Reclamation District No. 0785	U	A
RD0787	Reclamation District No. 0787	A	A
RD0817	Reclamation District No. 0817	U	A
RD0827	Reclamation District No. 0827	U	M
RD0900	Reclamation District No. 0900	U	U
RD0999	Reclamation District No. 0999	U	U
RD1000	Reclamation District No. 1000	A	A
RD1001	Reclamation District No. 1001	U	M
RD1500	Reclamation District No. 1500	M	M
RD1600	Reclamation District No. 1600	U	M
RD1601	Reclamation District No. 1601	A	A
RD1602	Reclamation District No. 1602	U	U
RD1660	Reclamation District No. 1660	A	A
RD2031	Reclamation District No. 2031	U	M
RD2035	Reclamation District No. 2035	U	A
RD2058	Reclamation District No. 2058	U	U
RD2060	Reclamation District No. 2060	U	M
RD2062	Reclamation District No. 2062	U	M
RD2063	Reclamation District No. 2063	U	U
RD2064	Reclamation District No. 2064	U	M
RD2068	Reclamation District No. 2068	A	A
RD2075	Reclamation District No. 2075	U	U
RD2085	Reclamation District No. 2085	U	U
RD2089	Reclamation District No. 2089	U	U
RD2091	Reclamation District No. 2091	A	A
RD2092	Reclamation District No. 2092	A	A
RD2094	Reclamation District No. 2094	U	A
RD2095	Reclamation District No. 2095	U	U
RD2096	Reclamation District No. 2096	A	A
RD2098	Reclamation District No. 2098	M	A

<b>LMA Short Name</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
RD2101	Reclamation District No. 2101	U	U
RD2103	Reclamation District No. 2103	A	M
RD2104	Reclamation District No. 2104	U	U
RD2107	Reclamation District No. 2107	M	A
ST0001	Cache Creek	M	M
ST0002	East Levee Sutter Bypass	M	A
ST0003	East Levee Sacramento River	A	A
ST0004	East Levee Yolo Bypass	U	A
ST0005	Hamilton Bend	U	U
ST0006	Nelson Bend	U	U
ST0007	Putah Creek	M	A
ST0008	Sacramento Bypass	A	A
ST0009	Tisdale Bypass	A	A
ST0010	Wadsworth Canal	A	A
ST0011	West Levee Yolo Bypass	U	M
ST0012	Willow Slough Bypass	A	A

**Table 4-2: Total of Maintenance Ratings for 2007 and 2008**

	<b>2007</b>	<b>2008</b>
<b>A=Acceptable</b>	<b>24</b>	<b>42</b>
<b>M=Minimally Acceptable</b>	<b>18</b>	<b>26</b>
<b>U=Unacceptable</b>	<b>65</b>	<b>39</b>

### LMA Maintenance Rating Comparison by Basin

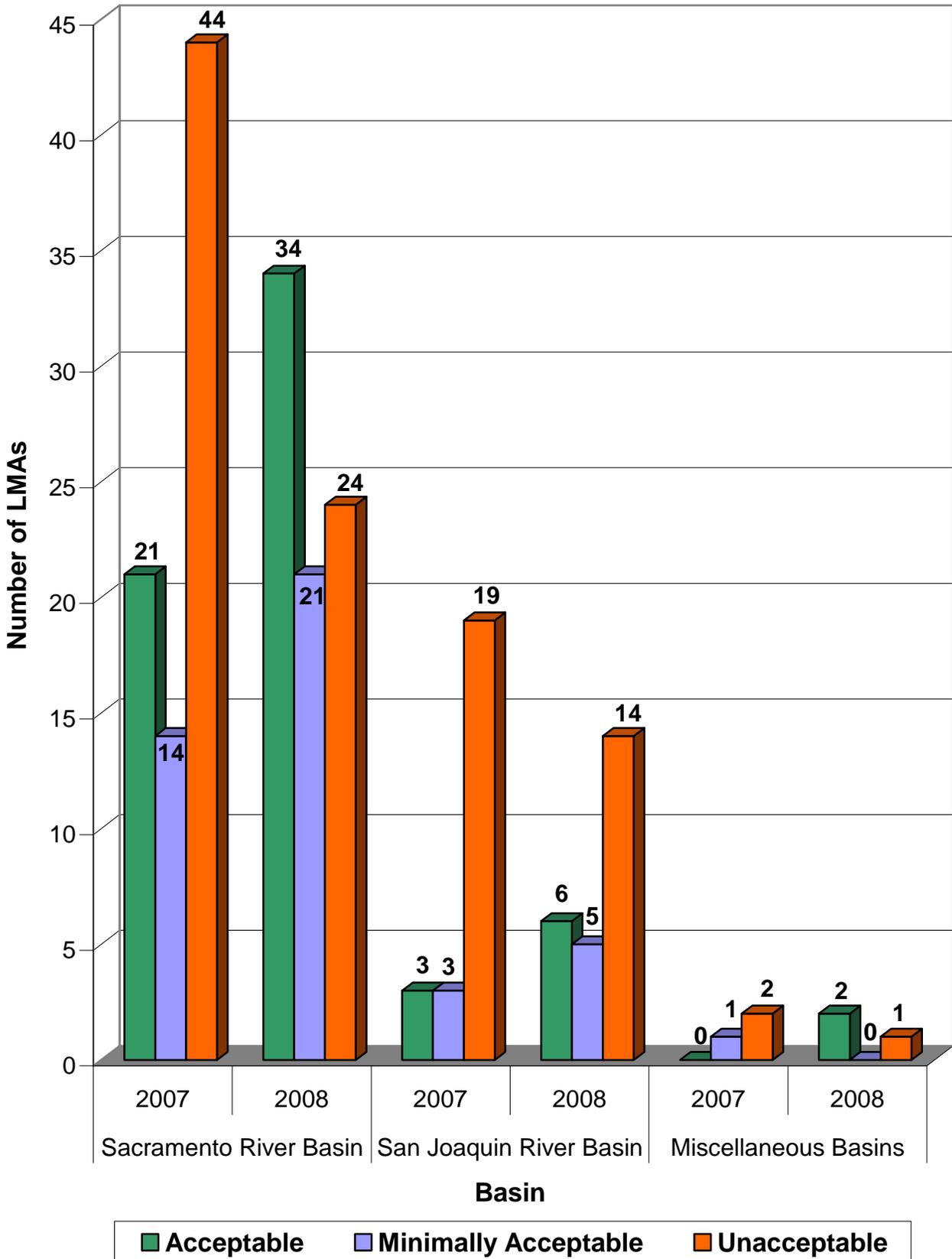


Figure 4-3

### LMA Maintenance Rating Changes From Fall 2007 to Fall 2008 By Basin

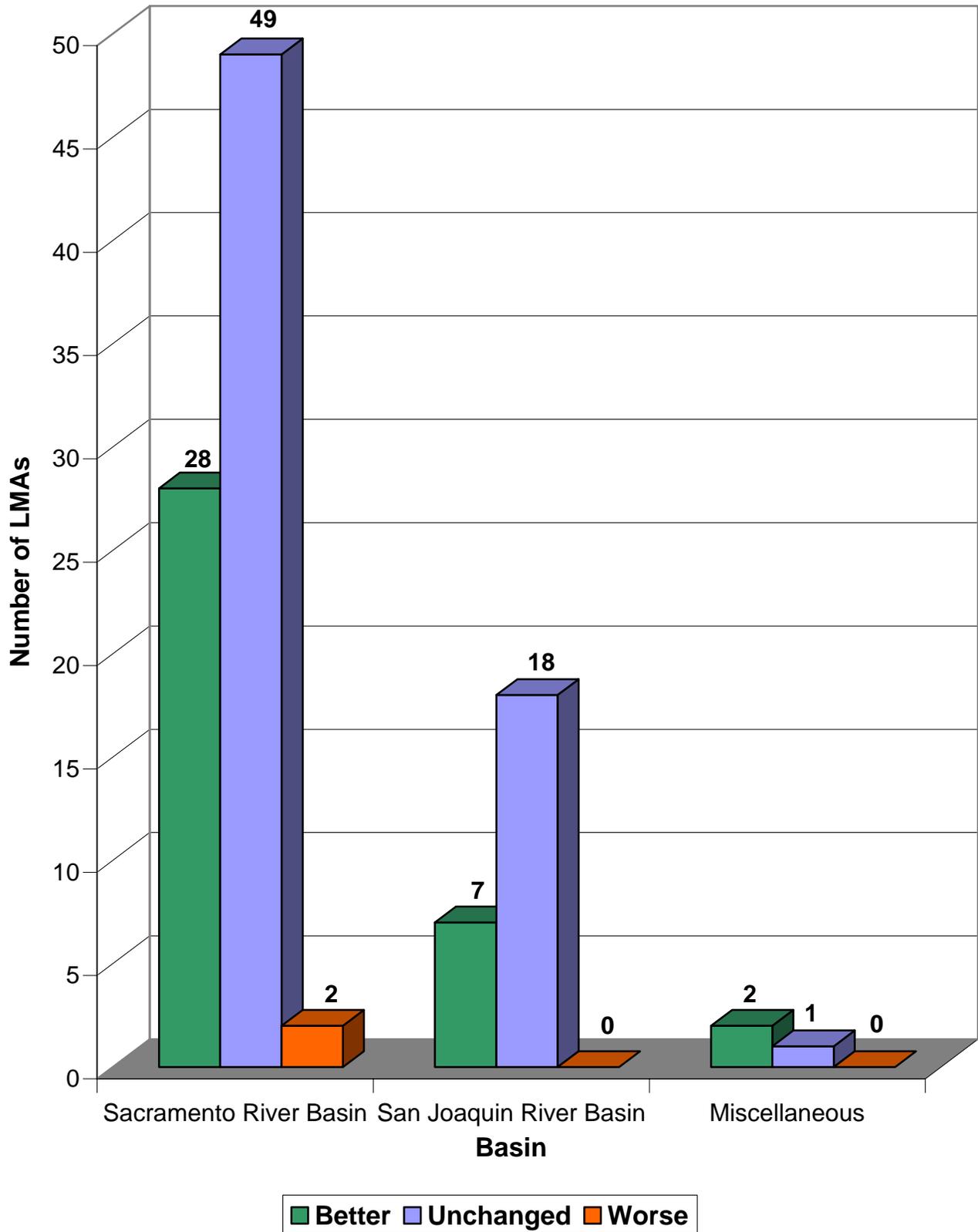


Figure 4-4

Figure 4-5 shows the percentage of deficient miles in the total system for each type of rated items for 2007 and 2008. Vegetation deficiencies make up the vast majority of the miles in both years followed by a significant amount of trim/thin trees and animal control. The least amount of deficient miles comes from encroachments, erosion, crown surface, and other items. The Other category includes cracking, repair gates, culverts, metal pipes, sluice/slide gates, rip rap revetments, flap gates, concrete surfaces. Figure 4-6 shows the same information but separated by basin. Encroachment issues rated as Partially or Completely Obstructing are not included in these figures. While many LMAs improved their overall maintenance ratings, the improvements to the total system are shown more completely in these figures by the decrease in maintenance deficient miles from 83% in 2007 to 36% in 2008.

Table 4-3 shows the length, in miles, of Minimally Acceptable (M) and Unacceptable (U) issues for each category in the total system and the percentage of the total project length along which these lengths occur. Also shown in this table is the change in M and U lengths as well as the change in the percent of total project lengths which these lengths occur. Tables 4-4, 4-5, and 4-6 show similar information to Table 4-3 but only contain the lengths for the Sacramento River, San Joaquin River, and Miscellaneous basins, respectively.

Figures 4-7 and 4-8 are maps of the Sacramento and San Joaquin systems, showing the location and rating of each LMA. To find the general location of a LMA, refer to Plates 1 and 1A at the end of this report.

A summary report showing the length of maintenance deficiencies noted in 2007 and 2008 for each LMA can be found in Appendix A. This report also shows the change in threshold percent for each of these maintenance deficiency categories. Detailed reports showing the inspections for each LMA, including photos, can be found at <http://cdec.water.ca.gov/fsir.html>.

# Percentage of Total System Levee Miles with Maintenance Deficiencies

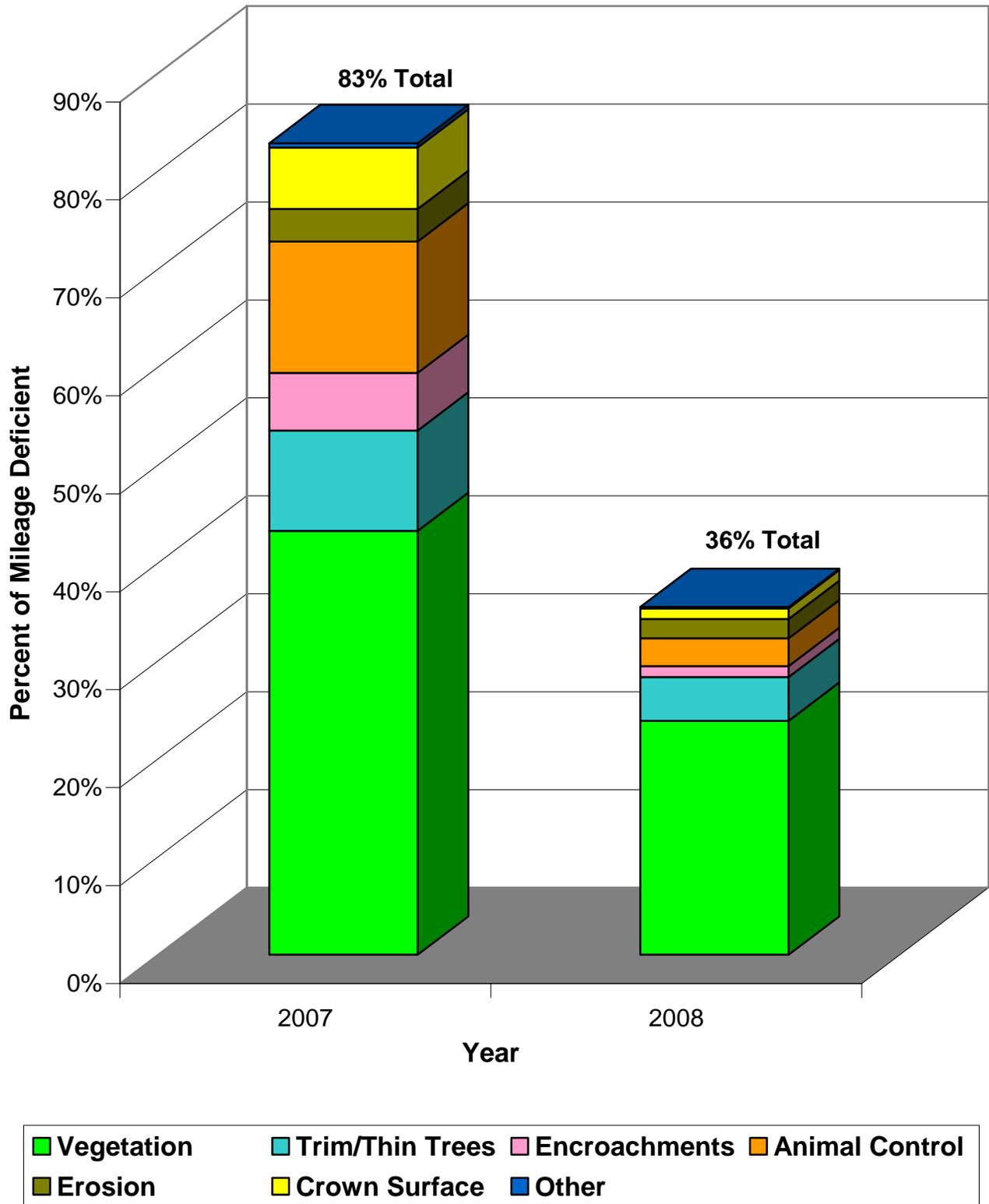


Figure 4-5

## Percentage of Levee Miles with Maintenance Deficiencies by Basin

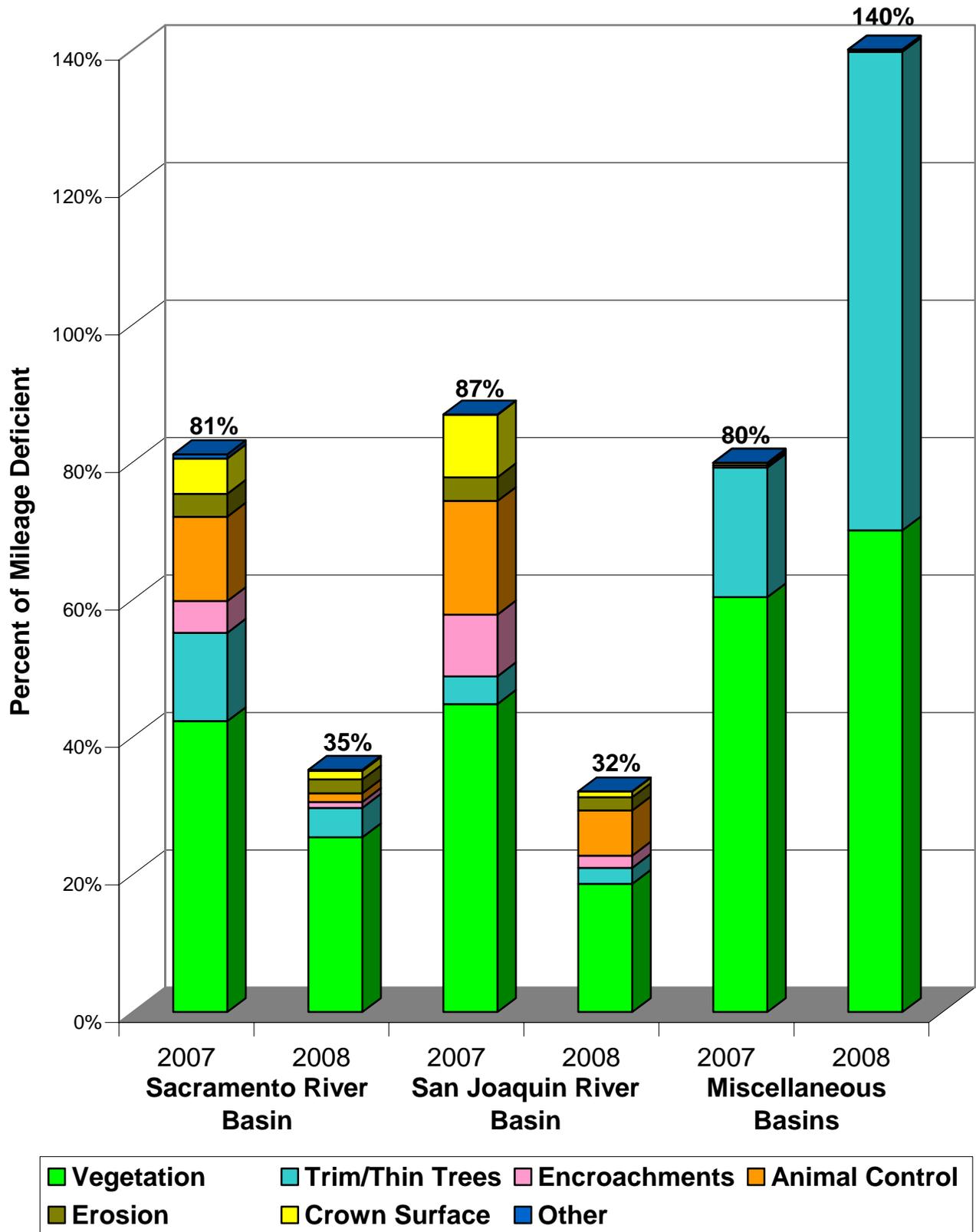


Figure 4-6

**Table 4-3: Total of Maintenance Issue Lengths for 2007 and 2008**

Total Project Length: 1573.98 miles	Fall 2007				Fall 2008				Change			
	Rated Item	M Miles	U Miles	M+4U Miles	Threshold Percent	M Miles	U Miles	M+4U Miles	Threshold Percent	M Miles	U Miles	M+4U Miles
Vegetation	385.53	73.37	679.01	43.27%	230.36	36.11	374.8	23.88%	-155.17	-37.26	-304.21	-19.39%
Trim/Thin Trees	124.34	9.14	160.9	10.25%	29.8	10.08	70.12	4.47%	-94.54	0.94	-90.78	-5.79%
Encroachments	84.89	1.86	92.33	5.88%	11.27	1.57	17.55	1.12%	-73.62	-0.29	-74.78	-4.77%
Animal Control	186.27	6.07	210.55	13.42%	29.63	3.72	44.51	2.84%	-156.64	-2.35	-166.04	-10.58%
Erosion	16.44	8.92	52.12	3.32%	12.43	4.62	30.91	1.97%	-4.01	-4.3	-21.21	-1.35%
Crown Surface	92.77	1.38	98.29	6.26%	13.2	1	17.2	1.10%	-79.57	-0.38	-81.09	-5.17%
Other	6.83	0.06	7.07	0.45%	0.4	0.41	2.04	0.13%	-6.43	0.35	-5.03	-0.32%
Total	897.07	100.8	1300.27	82.86%	327.09	57.51	557.13	35.50%	-569.98	-43.29	-743.14	-47.36%

**Table 4-4: Sacramento River Basin Length Maintenance Issue Lengths for 2007 and 2008**

Sacramento River Basin Length: 1078.60 miles	Fall 2007				Fall 2008				Change			
	Rated Item	M Miles	U Miles	M+4U Miles	Threshold Percent	M Miles	U Miles	M+4U Miles	Threshold Percent	M Miles	U Miles	M+4U Miles
Vegetation	233.98	55.61	456.42	42.32%	162.11	27.97	273.99	25.40%	-71.87	-27.64	-182.43	-16.91%
Trim/Thin Trees	101.98	9.11	138.42	12.83%	21.09	6.33	46.41	4.30%	-80.89	-2.78	-92.01	-8.53%
Encroachments	49.82	0.00	49.82	4.62%	7.79	0.34	9.15	0.85%	-42.03	0.34	-40.67	-3.77%
Animal Control	132.51	0.00	132.51	12.29%	13.46	0.00	13.46	1.25%	-119.05	0.00	-119.05	-11.04%
Erosion	11.91	5.96	35.75	3.31%	10.26	2.86	21.70	2.01%	-1.65	-3.10	-14.05	-1.30%
Crown Surface	50.20	1.30	55.40	5.14%	10.01	0.85	13.41	1.24%	-40.19	-0.45	-41.99	-3.89%
Other	6.65	0.03	6.77	0.63%	0.35	0.37	1.83	0.17%	-6.30	0.34	-4.94	-0.46%
Total	587.05	72.01	875.09	81.13%	225.07	38.72	379.95	35.23%	-361.98	-33.29	-495.14	-45.91%

**Table 4-5: San Joaquin River Basin Maintenance Issue Lengths for 2007 and 2008**

San Joaquin River Basin Length: 472.42 miles	Fall 2007				Fall 2008				Change			
	Rated Item	M Miles	U Miles	M+4U Miles	Threshold Percent	M Miles	U Miles	M+4U Miles	Threshold Percent	M Miles	U Miles	M+4U Miles
Vegetation	140.57	17.76	211.61	44.79%	68.02	5.01	88.06	18.64%	-72.55	-12.75	-123.55	-26.15%
Trim/Thin Trees	18.93	0.03	19.05	4.03%	8.52	0.63	11.04	2.34%	-10.41	0.60	-8.01	-1.70%
Encroachments	35.01	1.86	42.45	8.99%	3.44	1.23	8.36	1.77%	-31.57	-0.63	-34.09	-7.22%
Animal Control	53.76	6.07	78.04	16.52%	16.17	3.72	31.05	6.57%	-37.59	-2.35	-46.99	-9.95%
Erosion	4.46	2.96	16.30	3.45%	2.07	1.76	9.11	1.93%	-2.39	-1.20	-7.19	-1.52%
Crown Surface	42.57	0.08	42.89	9.08%	3.19	0.15	3.79	0.80%	-39.38	0.07	-39.10	-8.28%
Other	0.18	0.03	0.30	0.06%	0.05	0.04	0.21	0.04%	-0.13	0.01	-0.09	-0.02%
Total	295.48	28.79	410.64	86.92%	101.46	12.54	151.62	32.09%	-194.02	-16.25	-259.02	-54.83%

**Table 4-6: Miscellaneous Basins Maintenance Issue Lengths for 2007 and 2008**

Miscellaneous Basins Length: 18.20 miles	Fall 2007				Fall 2008				Change			
	Rated Item	M Miles	U Miles	M+4U Miles	Threshold Percent	M Miles	U Miles	M+4U Miles	Threshold Percent	M Miles	U Miles	M+4U Miles
Vegetation	10.98	0.00	10.98	60.33%	0.23	3.13	12.75	70.05%	-10.75	3.13	1.77	9.73%
Trim/Thin Trees	3.43	0.00	3.43	18.85%	0.19	3.12	12.67	69.62%	-3.24	3.12	9.24	50.77%
Encroachments	0.06	0.00	0.06	0.33%	0.04	0.00	0.04	0.22%	-0.02	0.00	-0.02	-0.11%
Animal Control	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00%
Erosion	0.07	0.00	0.07	0.38%	0.10	0.00	0.10	0.55%	0.03	0.00	0.03	0.16%
Crown Surface	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00%
Other	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00%
Total	14.54	0.00	14.54	79.89%	0.56	6.25	25.56	140.44%	-13.98	6.25	11.02	60.55%





## 5 PROJECT CHANNEL INSPECTIONS

Project channels in the Sacramento River, San Joaquin River, and other river and stream basins are inspected annually by the Flood Project Integrity and Inspection Branch of the Division of Flood Management of the Department of Water Resources (DWR) on behalf of the Central Valley Flood Protection Board (CVFPB or the Board). The purpose of this report is to announce the results of the annual inspection for the year 2008.

The purpose of the annual inspection is to identify and report on any condition which may diminish channel design capacities. Such conditions include: vegetation & obstructions, encroachments, sediment deposition (shoaling), revetments, and erosion. Concrete lined channels are further evaluated with respect to the condition of the concrete and other structural appurtenances. In general, maintaining the channels to the condition that existed after completion of the initial construction will preserve their design capacities. The standard of comparison for the inspection is, therefore, the condition immediately after construction. Design capacities, if applicable, can be found in the operations and maintenance (O&M) manuals for each project channel.

The annual inspections rely upon a qualitative rating system that has been developed based on the United States Army Corps of Engineers (USACE) O&M manuals. As the annual inspections are qualitative in nature, the existing channel capacities are not evaluated in this report. Ultimately, a single overall rating is assigned to each channel by the DWR. An explanation of the overall rating method follows the summary of results section. This overall rating is a relative indication of how well maintained each channel is.

The USACE and the State of California constructed the channels included in this report. Local agencies or the State of California agreed to be responsible for the maintenance of these channels at the time of construction or at a later time. The USACE issued the O&M manuals referenced above to each maintaining agency at the time of construction. These maintaining agencies are identified in the summary of results tables of this report. The results of these annual inspections are made available to the maintaining agencies, USACE, the Board, and the public.

## **5.1 2008 Channel Inspection Results**

In 2008 twenty four of the twenty five Project channels received a rating of Acceptable while one received a rating of Minimally Acceptable. In 2008, no channels were rated as Unacceptable. This is an improvement from the results of the 2007 inspection where ten channels received Acceptable ratings, fourteen received Minimally Acceptable ratings, and one received an Unacceptable rating. Individual ratings for each of the channels in the Sacramento River can be found in Table 5-1, each of the channels in the San Joaquin River Basin in Table 5-2, and the other channels in miscellaneous basins in Table 5-3.

The general improvements in the overall ratings of the channels show that the maintenance of these channels is improving. Fourteen channels received improved ratings to Acceptable from the 2007 ratings while only one channel's rating remained Minimally Acceptable. It should be noted that while the determination of the overall rating in 2008 is similar to what was done in 2007, the formalized inspection and rating method may yield some differences. Figure 5-1 shows the improvement in the maintenance ratings from 2007 to 2008. In addition to an improvement in the overall ratings of the channels, the individual categories used to rate the channels also improved in 2008 compared to 2007. Figure 5-2 shows this improvement.

Table 5-5 shows a summary of the channel clearance activities performed in 2008.

A summary of the ratings for each channel, grouped by LMA and including the rated categories for each, can be found in Appendix B. More detailed reports including photos for each channel can be found at <http://cdec.water.ca.gov/fsir.html>.

**Table 5-1: Sacramento River Basin**

<b>Channel</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
Ash Creek	Adin Community Services District	A	A
Dry Creek	Adin Community Services District	A	A
McClure Creek	Tehama County	M	A
Salt Creek	Tehama County	U	A
Big Chico Creek	State DWR	M	A
Lindo Channel and Sandy Gulch	State DWR	M	A
Little Chico Creek	State DWR	M	A

**Table 5-2: San Joaquin River Basin**

<b>Channel</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
Bear Creek	Merced Irrigation District	M	M
Black Rascal Creek	Merced Irrigation District	M	A
Burns Creek	Merced Irrigation District	A	A
Mariposa Creek	Merced Irrigation District	M	A
Miles Creek	Merced Irrigation District	M	A
Owens Creek	Merced Irrigation District	M	A
Ash Slough	Madera County	M	A
Berenda Slough	Madera County	M	A
Chowchilla River	Madera County	M	A
Fresno River	Madera County	M	A
North Littlejohn Creek	San Joaquin County Flood Control District	M	A
Duck Creek Diversion	San Joaquin County Flood Control District	A	A
South Littlejohn Creek	San Joaquin County Flood Control District	A	A
South Littlejohn Creek, North Branch	San Joaquin County Flood Control District	A	A

**Table 5-3: Miscellaneous Basins**

<b>Channel</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
Truckee River	Placer County	A	A
McCoy Creek	Fairfield-Suisun Sewer District	A	A
Laurel Creek	Fairfield-Suisun Sewer District	A	A
Union Avenue Diversion	Fairfield-Suisun Sewer District	A	A

### Channel Overall Ratings Comparison 2007 to 2008

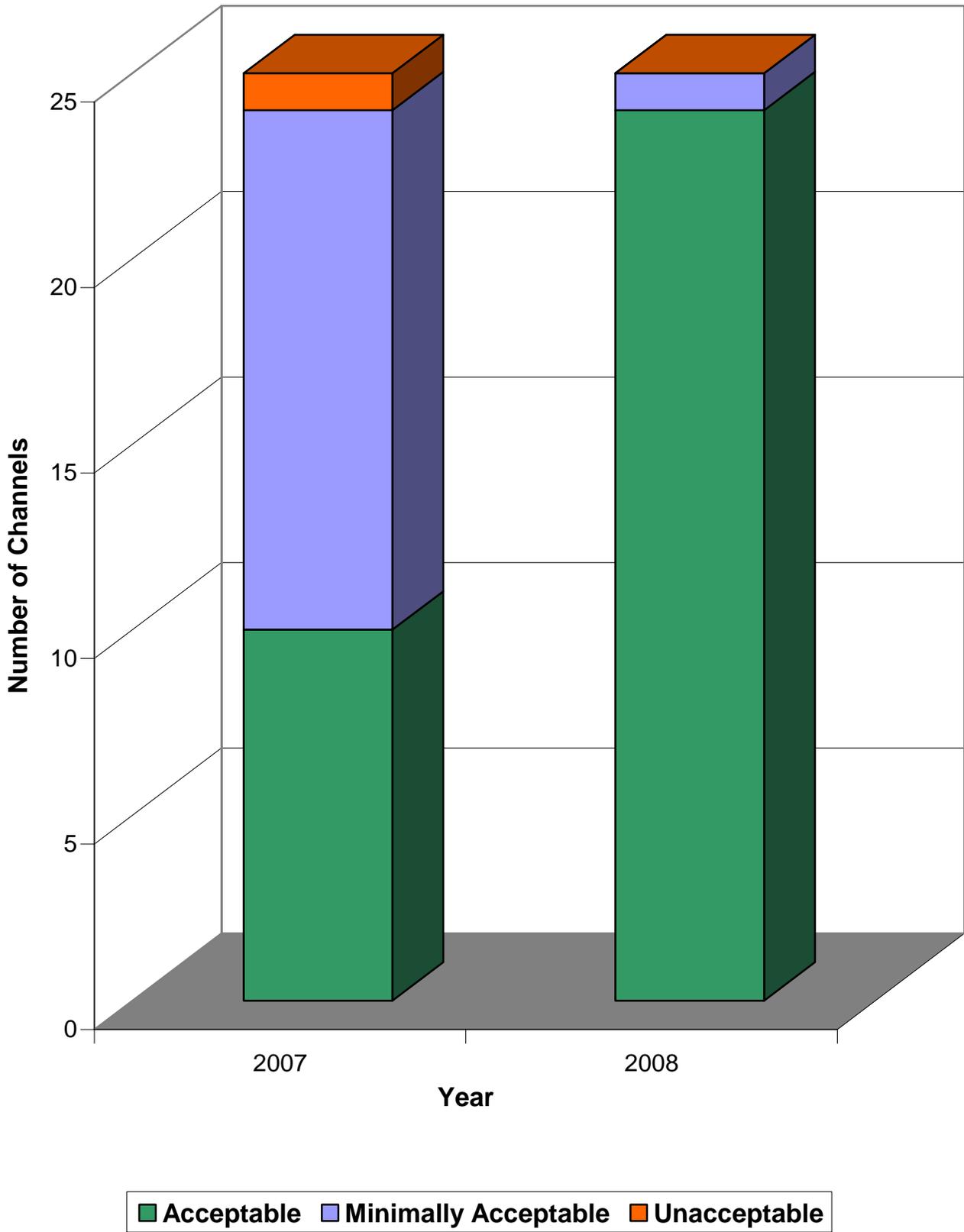


Figure 5-1

### 2008 Channel Maintenance Deficiencies by Category

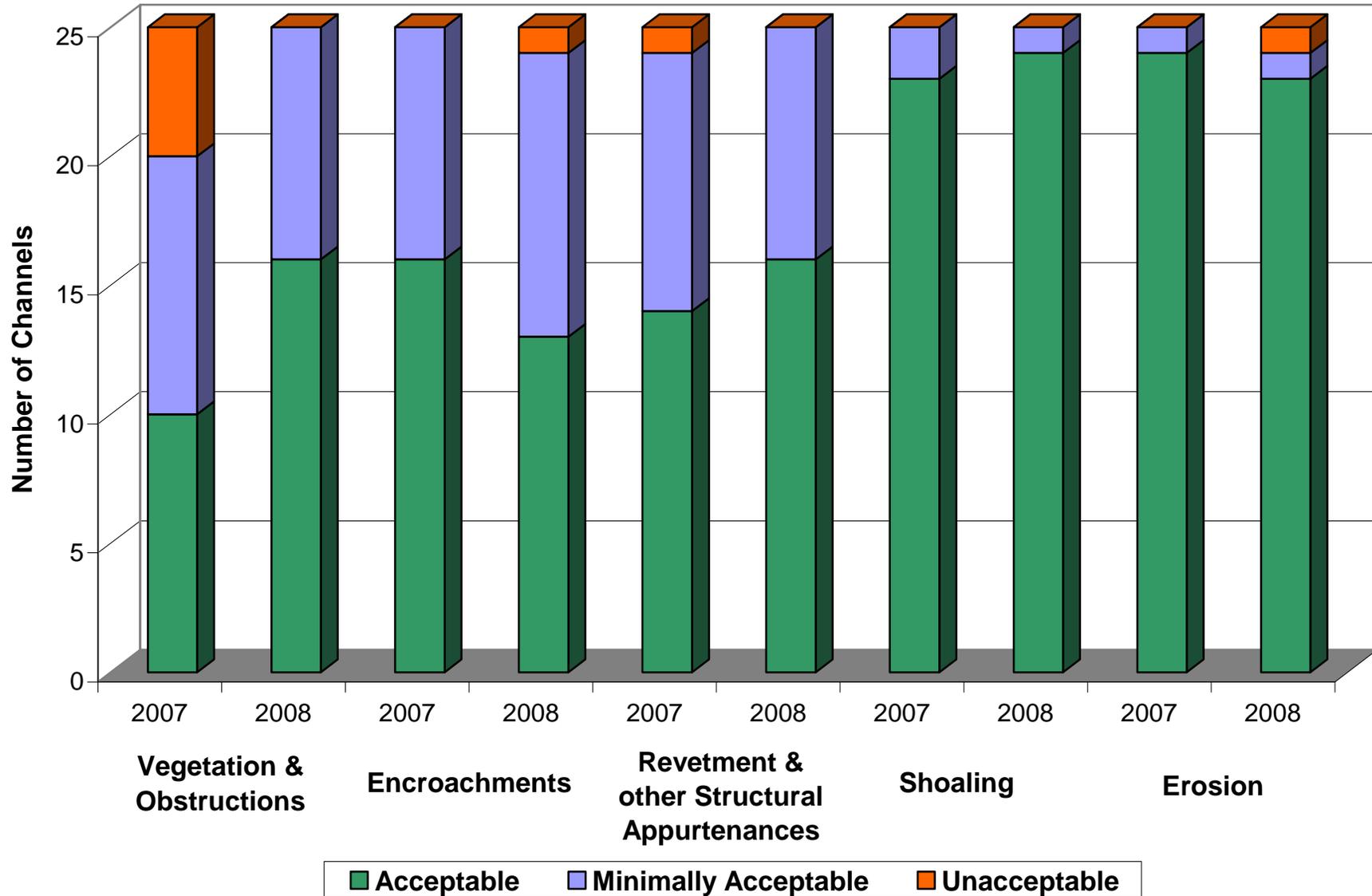


Figure 5-2

**Table 5-5: 2008 Channel Clearance Activities**

<b>Stream</b>	<b>Maintaining Agency</b>	<b>Basin</b>	<b>Brush Mechanically Cleared (acres)</b>	<b>Brush Hand Cleared (acres)</b>	<b>Brush Chemically Controlled (acres)</b>	<b>Sediment Removed (cubic yards)</b>
Putah Creek	DWR-SMY	SR	0	0	2	0
Willow Slough	DWR-SMY	SR	0	0	1	0
Sacramento Bypass	DWR-SMY	SR	0	0	16	0
Fremont Weir	DWR-SMY	SR	250	0	5	0
Ridge Cut	DWR-SMY	SR	70	0	2	0
Cache Creek	DWR-SMY	SR	110	50	46	0
Natomas Cross Canal	DWR-SMY	SR	30	0	9	0
Natomas East Main Drain	DWR-SMY	SR	25	0	10	0
Arcade Creek	DWR-SMY	SR	0	0	1	0
Yolo Bypass	DWR-SMY	SR	0	0	2	0
Schriener	DWR-SMY	SR	75	0	2	0
Furlan	DWR-SMY	SR	80	0	0	0
Bear River Area	DWR-SY	SR	75	0	0	0
Big Chico Creek	DWR-SY	SR	0	3	0	0
Cherokee Canal	DWR-SY	SR	780	25	400	0
Elder Creek	DWR-SY	SR	0	10	10	0
Little Chico Creek Diversion Structure	DWR-SY	SR	0	2	2	0
Middle Creek	DWR-SY	Miscellaneous	5	15	20	0
Mud Creek	DWR-SY	SR	0	10	10	0
Sycamore Creek	DWR-SY	SR	40	0	25	0
Butte Creek	DWR-SY	SR	150	40	40	0
Sutter Bypass	DWR-SY	SR	370	60	20	0
Tisdale Bypass	DWR-SY	SR	400	10	2.5	0
Butte Slough	DWR-SY	SR	0	3	0	0
Colusa Basin Drain	DWR-SY	SR	0	5	0	0
Clover Creek	Lake County-FCD	Miscellaneous	0	0	25	0
Bear Creek	MID	SJR	56	0	14	0

<b>Stream</b>	<b>Maintaining Agency</b>	<b>Basin</b>	<b>Brush Mechanically Cleared (acres)</b>	<b>Brush Hand Cleared (acres)</b>	<b>Brush Chemically Controlled (acres)</b>	<b>Sediment Removed (cubic yards)</b>
Black Rascal Creek Diversion	MID	SJR	19	0	0	5
Black Rascal Creek	MID	SJR	0	0	0	26,400
Mariposa Creek	MID	SJR	15	0	0	0
Miles Creek	MID	SJR	111	0	0	0
Owens Creek Diversion	MID	SJR	10	0	0	4400
Ash Slough	LSJLD	SJR	0	0	1	0
Berenda Slough	LSJLD	SJR	0	0	2.5	0
Chowchilla Canal Bypass	LSJLD	SJR	0	0	8	36,165
Eastside Bypass	LSJLD	SJR	0	0	10	6000
Mariposa Bypass	LSJLD	SJR	0	0	4	0
Owens Creek	LSJLD	SJR	0	0	1	0
San Joaquin River (Chowchilla Canal Bypass to Gravelly Ford)	LSJLD	SJR	0	0	10	20,000
San Joaquin River (Merced River to Mendota Dam)	LSJLD	SJR	6	0	5	4000

DWR S.M.Y = DWR Sacramento Maintenance Yard  
DWR SY= DWR Sutter Maintenance Yard  
MID= Merced Irrigation District  
FCD=Flood Control District  
LSJLD=Lower San Joaquin Levee District  
SR= Sacramento River  
SJR= San Joaquin River

## 6 PROJECT STRUCTURE INSPECTIONS

The Sacramento and San Joaquin River flood protection systems are comprised of many flood protection structures that were constructed on these rivers and their tributaries throughout the central valley by the United States Army Corps of Engineers (USACE) and the State of California. The types of structures include: fixed crest diversion weirs, controllable diversion structures, outfall structures, drop structures, and interior drainage pumping plants. At the time of construction, operations and maintenance (O&M) manuals were issued by the USACE or the State of California to the local maintaining agencies (LMAs). These maintaining agencies agreed to be responsible for the maintenance of the flood protection structures.

The maintenance effort expended on these structures has been the subject of an annual report dating back to 1959. A report entitled, Location, Description and Inventory of Miscellaneous Project Structures, Sacramento River Flood Control Project, and American River Flood Control Project, was issued and was followed shortly thereafter by a maintenance status report. Maintenance status reports on flood protection structures have since been made on an annual basis. Presently, it is in this Structures Report that the State of California makes its inspection results (formerly maintenance status reports) available to the LMAs, the USACE, the Central Valley Flood Protection Board (CVFPB or the Board), and the public. These inspections are made on behalf of the CVFPB by the Department of Water Resources (DWR), Division of Flood Management, Flood Project Inspection Section.

The structures inspection cycle is conducted in the summer. Inspections focus on forty two flood protection structures and thirteen pumping plants. The summer inspections of these structures and pumping plants consist of visual field inspections. These field inspections are based on USACE criteria that have been established to identify deficiencies in the structures and pumping plants. These inspections also look at unauthorized encroachments and authorized construction projects for compliance with the CVFPB permit conditions. Ultimately, DWR applies its own overall rating criteria to generate a single, overall rating for each of the forty-two flood protection structures and thirteen pumping plants. This year, DWR has formalized this rating method to ensure consistent ratings. This overall rating criteria method is explained in detail in section 2.5.

## **6.1 2008 Structure Inspection Results**

In 2008 thirty seven of the forty two Project flood protection structures received Acceptable ratings, while five received Minimally Acceptable ratings. No structures received Unacceptable ratings. This is an improvement over the 2007 results where thirty two structures were rated Acceptable, nine Minimally Acceptable and one Unacceptable. Twelve of the thirteen Project pumping plants were rated as Acceptable with one rated as Minimally Acceptable in 2008 and no plants rated as Unacceptable. In 2007 there were the same number of plants rated as Acceptable, Minimally Acceptable and Unacceptable.

The individual ratings for each structure in the greater Sacramento Basin can be found in Table 6-1. Table 6-2 contains the ratings for each structure in the San Joaquin Basin, Table 6-3 contains the ratings for each structure in miscellaneous basins. Table 6-4 contains individual ratings for the pumping plants. Figure 6-1 compares the number of structures receiving each rating for the 2007 and 2008 inspections. Figure 6-2 compares the number of pumping plants receiving each rating for the 2007 and 2008.

These results show a general improvement in the maintenance practices of these structures. With the exception of the Middle Creek pumping plant, all structures either improved or maintained their maintenance ratings. It should be noted that while the determination of the overall rating in 2008 is similar to what was done in 2007, the formalized inspection and rating method may yield some differences. This rating method is explained in detail in section 2.5 of this report. Continued refinement and use of this method will yield more consistent results and a better comparison of ratings from one year to another in the future.

A summary of the ratings for each structure, grouped by LMA and including the rated categories for each, can be found in Appendix C. A similar report for pumping plants can be found in Appendix D. More detailed reports including photos for each structure can be found at <http://cdec.water.ca.gov/fsir.html>.

**Table 6-1: Sacramento River Basin**

<b>Structure</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
North Fork Feather River Diversion Channel Drop Structures (1 thru 7)	Plumas County	A	A
North Fork Feather River Diversion Structure	Plumas County	A	A
Elk Slough Inlet Structure	Reclamation District 999	A	A
Cache Creek Settling Basin Weir & Drainage Structure	Sacramento Maintenance Yard	A	A
Fremont Weir	Sacramento Maintenance Yard	A	A
Knights Landing Outfall Structure	Sacramento Maintenance Yard	A	A
Sacramento Weir	Sacramento Maintenance Yard	A	A
Big Chico Creek Control Structure	Sutter Maintenance Yard	A	A
Butte Slough Drainage Structure	Sutter Maintenance Yard	M	M
Butte Slough Outfall Structure	Sutter Maintenance Yard	A	A
Colusa Weir	Sutter Maintenance Yard	A	A
Lindo Channel Control Structure	Sutter Maintenance Yard	M	A
Lindo Channel Diversion Weir	Sutter Maintenance Yard	M	A
Little Chico Creek Control & Weir Structure	Sutter Maintenance Yard	A	A
Moulton Weir	Sutter Maintenance Yard	A	A
Nelson Bend (Rock Quarry Weir)	Sutter Maintenance Yard	A	A
Sutter Bypass (East Borrow Pit) Weir #2	Sutter Maintenance Yard	A	A
Tisdale Weir	Sutter Maintenance Yard	A	A
Wadsworth Canal Weir # 4	Sutter Maintenance Yard	A	A

**Table 6-2: San Joaquin River Basin**

<b>Structure</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
Ash Slough Drop Structure #1	Lower San Joaquin Levee District	A	A
Ash Slough Drop Structure #2	Lower San Joaquin Levee District	A	A
Ash Slough Drop Structure #3	Lower San Joaquin Levee District	M	A
Ash Slough Drop Structure #4	Lower San Joaquin Levee District	A	A
Bear Creek Diversion Structure	Lower San Joaquin Levee District	A	A
Eastside Bypass Control Structure	Lower San Joaquin Levee District	A	A
Eastside Bypass Drop Structure #1	Lower San Joaquin Levee District	A	A
Eastside Bypass Drop Structure #2	Lower San Joaquin Levee District	A	A
Fresno River Drainage Structure	Lower San Joaquin Levee District	M	A
Mariposa Bypass Drop Structure	Lower San Joaquin Levee District	A	A
Owens Creek Control Structure	Lower San Joaquin Levee District	M	A
Owens Creek Overflow Structure	Lower San Joaquin Levee District	A	A
San Joaquin River & Chowchilla Canal Bypass Control Structure	Lower San Joaquin Levee District	A	A
San Joaquin River Structure & Sand Slough Structure	Lower San Joaquin Levee District	A	A
Ash & Berenda Slough Control Structure	Madera County Flood Control and Water Conservation Agency	A	A
Fresno River Diversion Weir	Madera County Flood Control and Water Conservation Agency	A	M
Black Rascal Creek Drop Structure	Merced Irrigation District	A	A
Owens Creek Siphon Structure	Merced Irrigation District	M	M
Paradise Dam	Sacramento Maintenance Yard	M	M
Duck Creek Diversion Weir & Control System	San Joaquin County Flood Control District	A	A

**Table 6-3: Miscellaneous Basins**

<b>Structure</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
Clover Creek Diversion Structure	Lake County Watershed Protection District	U	M
Highland Canal Diversion Weir & Drainage Structure	Lake County Watershed Protection District	M	A

**Table 6-4: Pumping Plants**

<b>Pumping Plant</b>	<b>LMA Name</b>	<b>2007 Overall Rating</b>	<b>2008 Overall Rating</b>
Magpie Creek	City of Sacramento	A	A
Reclamation District 2063 Pumping Plant	Reclamation District 2063	M	A
Wetherbee Lake Pumping Plant & Navigation Gate	Reclamation District 2096	A	A
American River Pumping Plant #1	Sacramento County	A	A
American River Pumping Plant #2	Sacramento County	A	A
Mormon Slough #1	San Joaquin County Flood Control District	A	A
Mormon Slough #2	San Joaquin County Flood Control District	A	A
Mormon Slough #3	San Joaquin County Flood Control District	A	A
Middle Creek	Sutter Maintenance Yard	A	M
Sutter Bypass #1	Sutter Maintenance Yard	A	A
Sutter Bypass #2	Sutter Maintenance Yard	A	A
Sutter Bypass #3	Sutter Maintenance Yard	A	A
Gomes Lake	Turlock Irrigation District	A	A

## Structure Overall Ratings Comparison 2007 to 2008

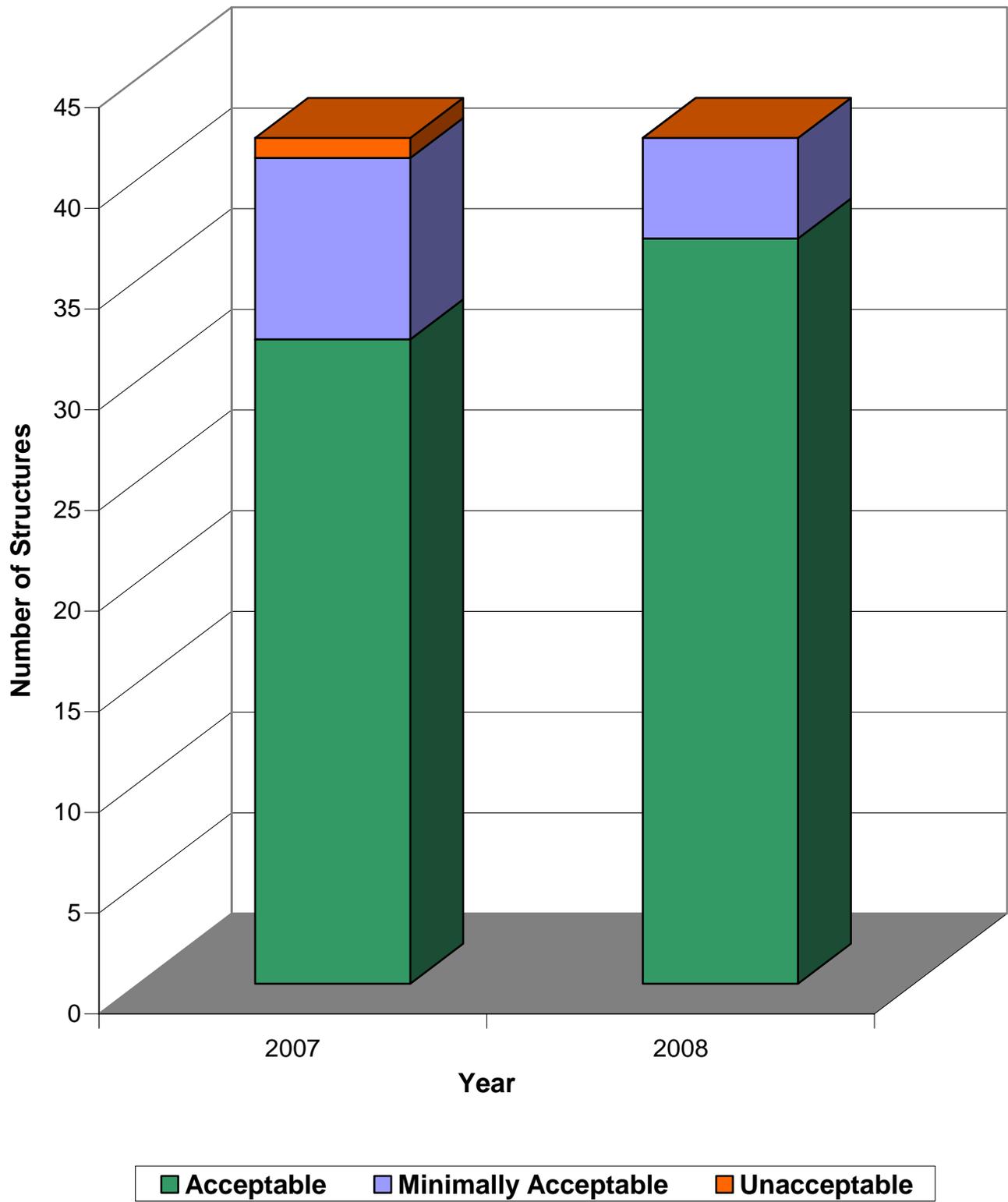


Figure 6-1

## Pump Plant Overall Ratings Comparison 2007 to 2008

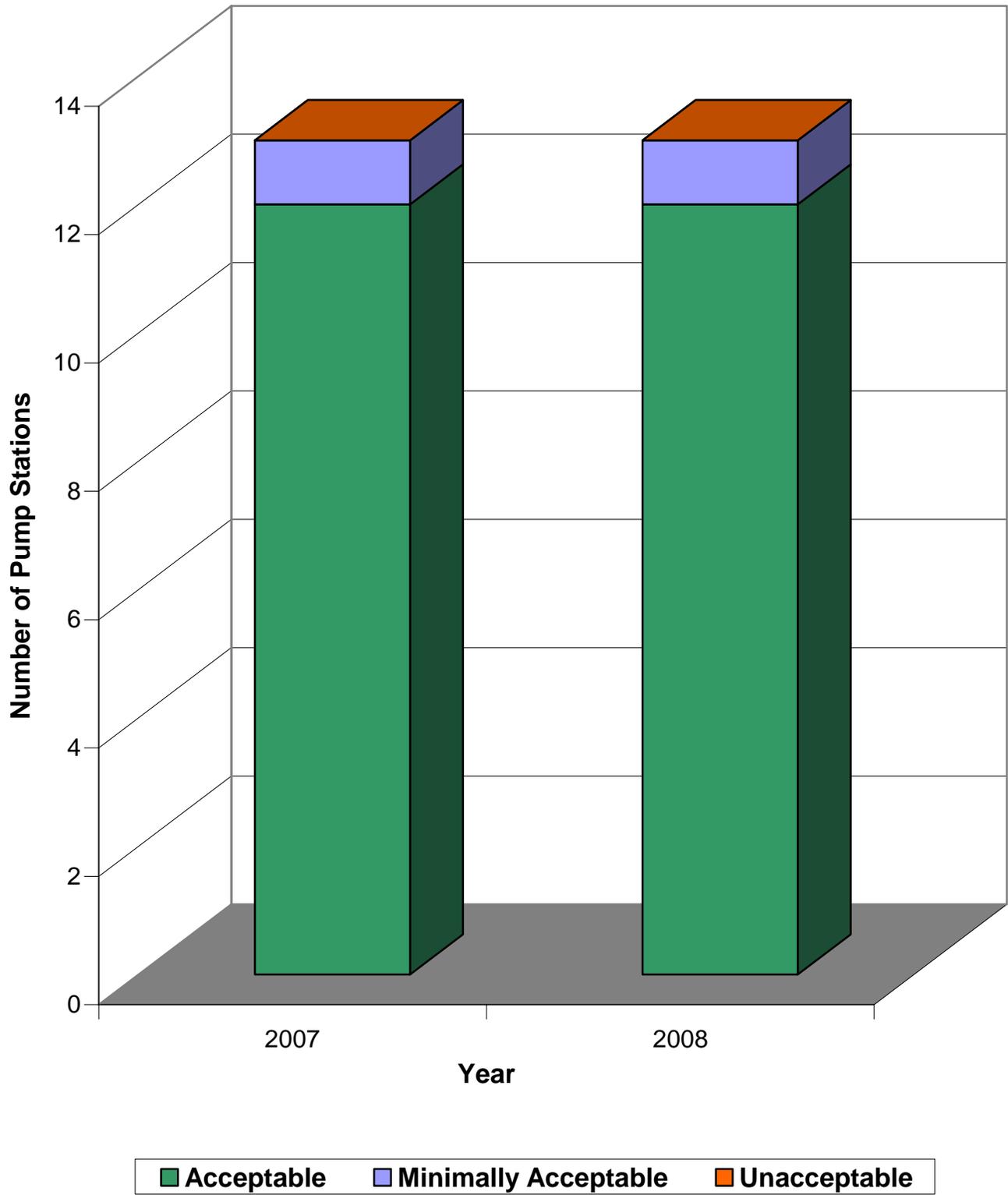


Figure 6-2



# Flood Control Projects and Agencies

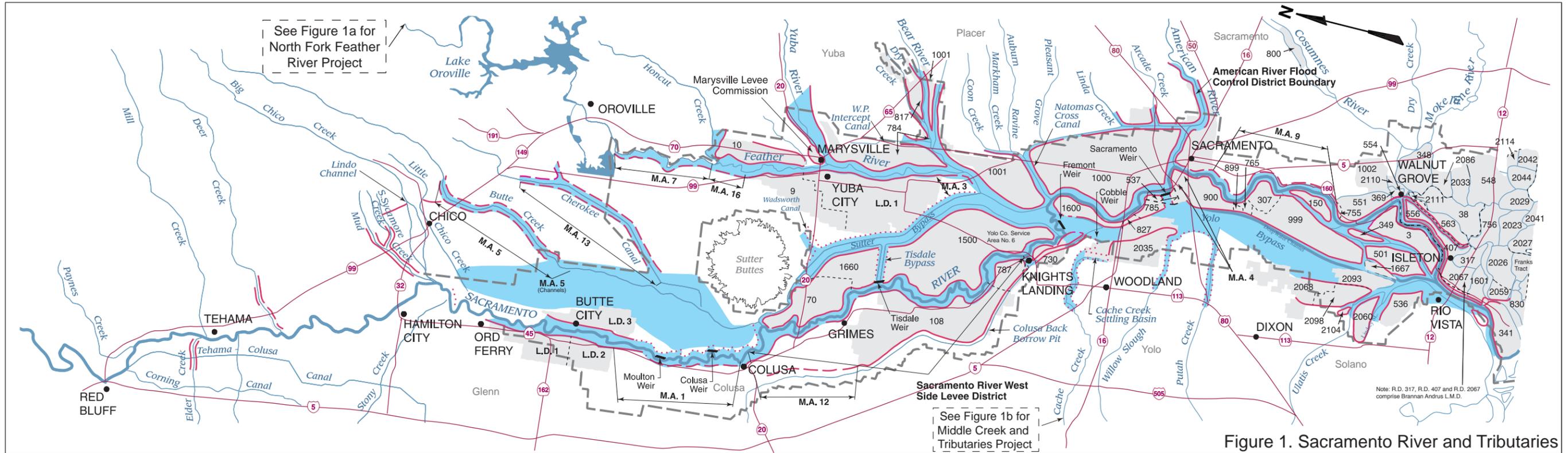


Figure 1. Sacramento River and Tributaries

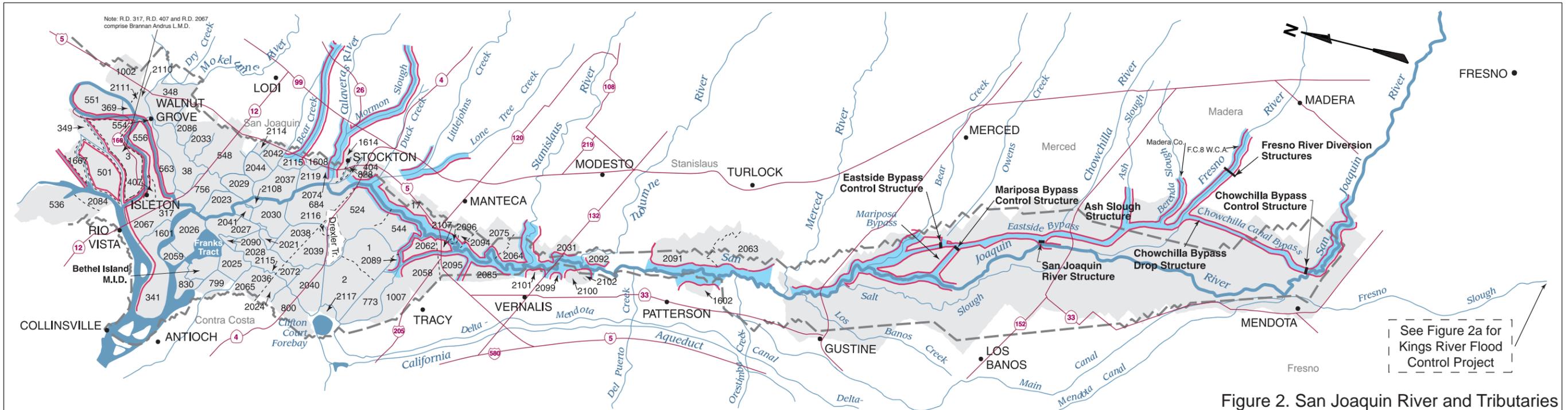
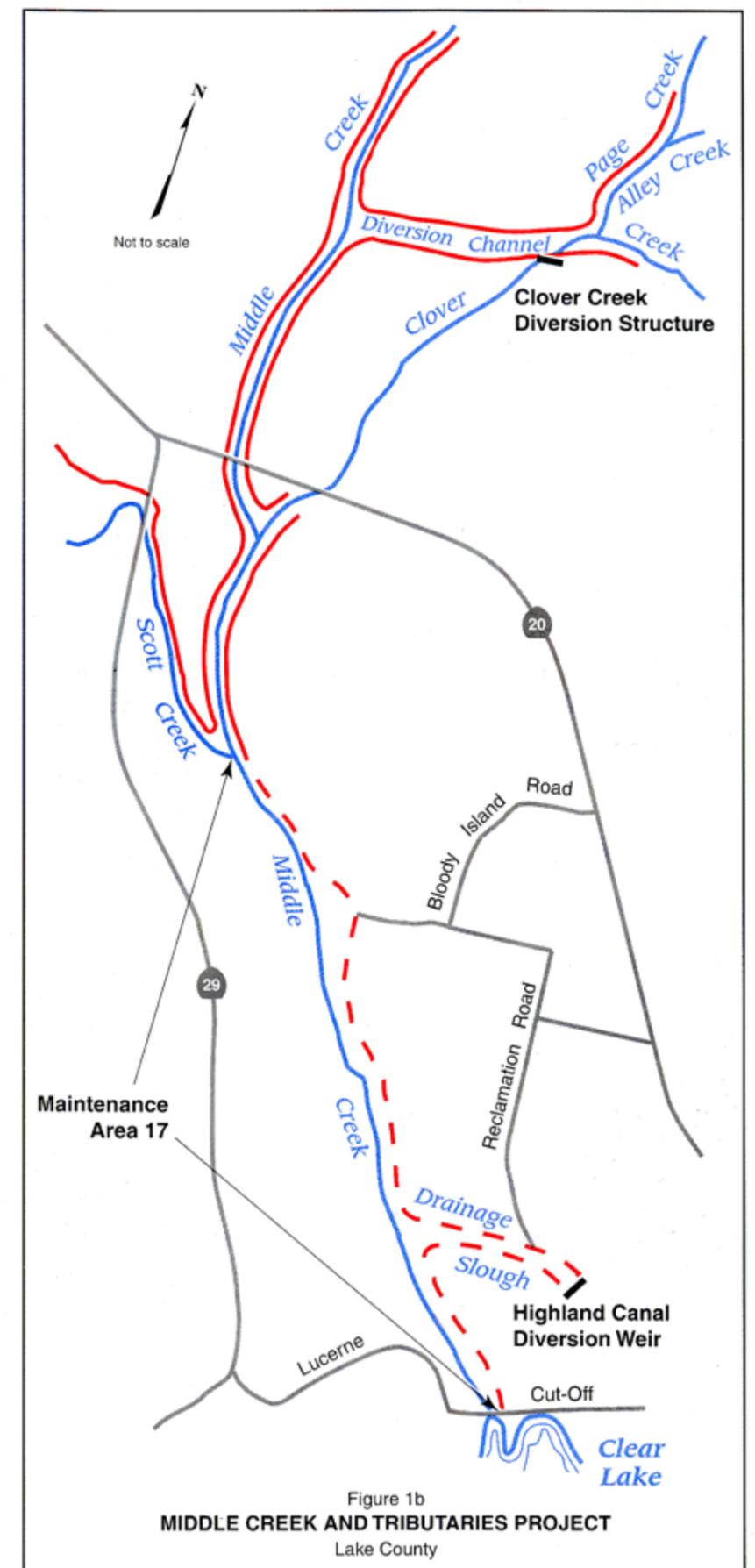
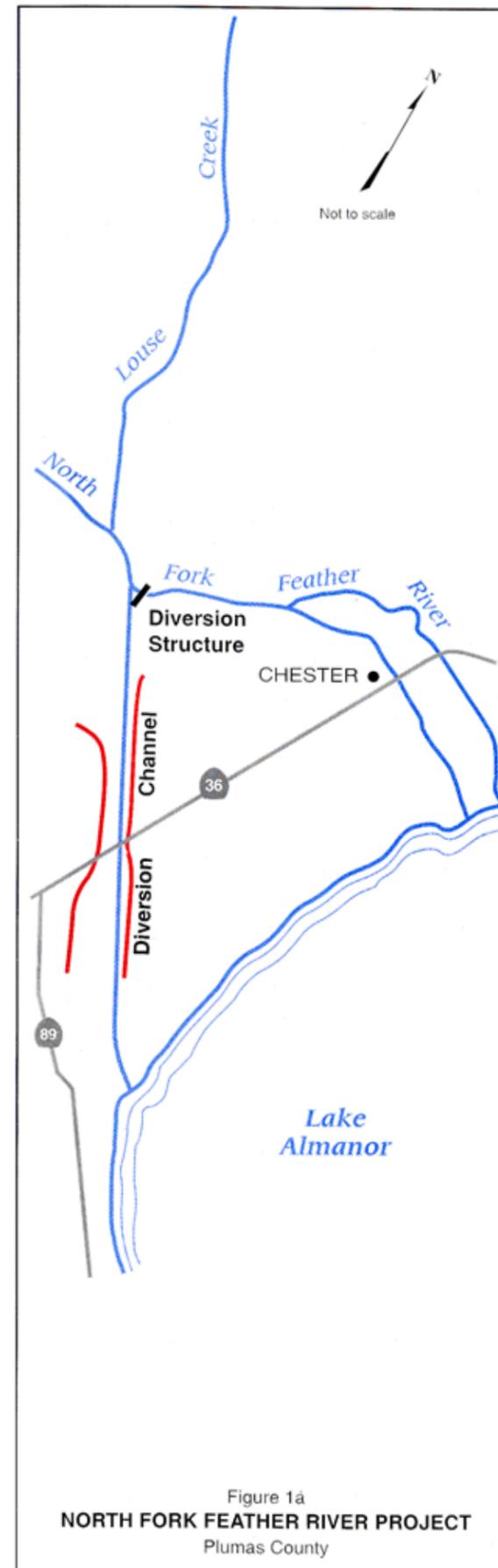
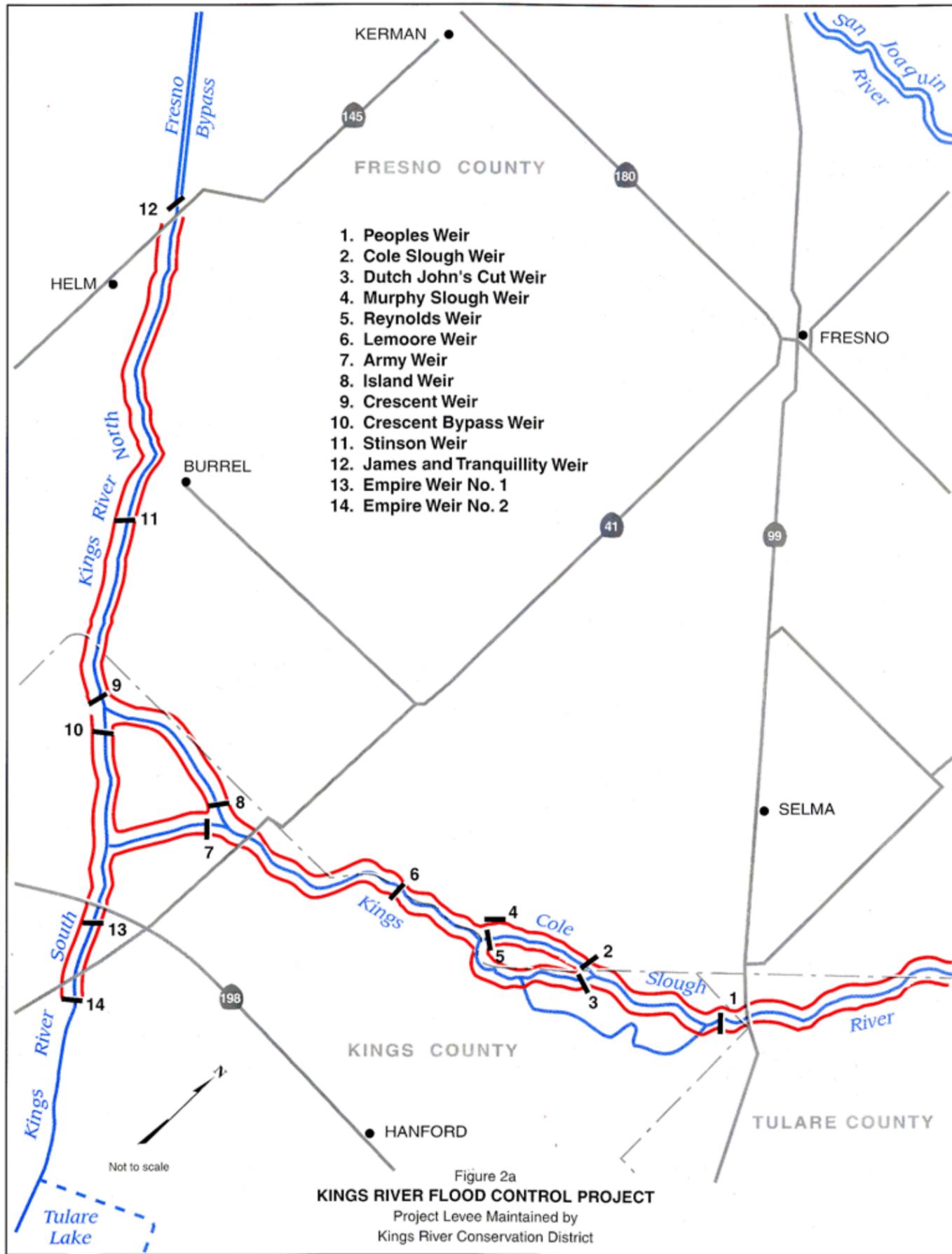


Figure 2. San Joaquin River and Tributaries

- R.D. 20 Reclamation and Levee Districts
- Project Levees Maintained by Department of Water Resources, Sec. 12878 to Sec. 1278.45 of the Water Code
- Project Levees Maintained by Department of Water Resources, Sec. 8361 of the Water Code
- Project Levees Maintained by Reclamation, Levee, and Drainage Districts and Municipalities
- Boundary of Sacramento-San Joaquin Drainage District

Revised March 2006

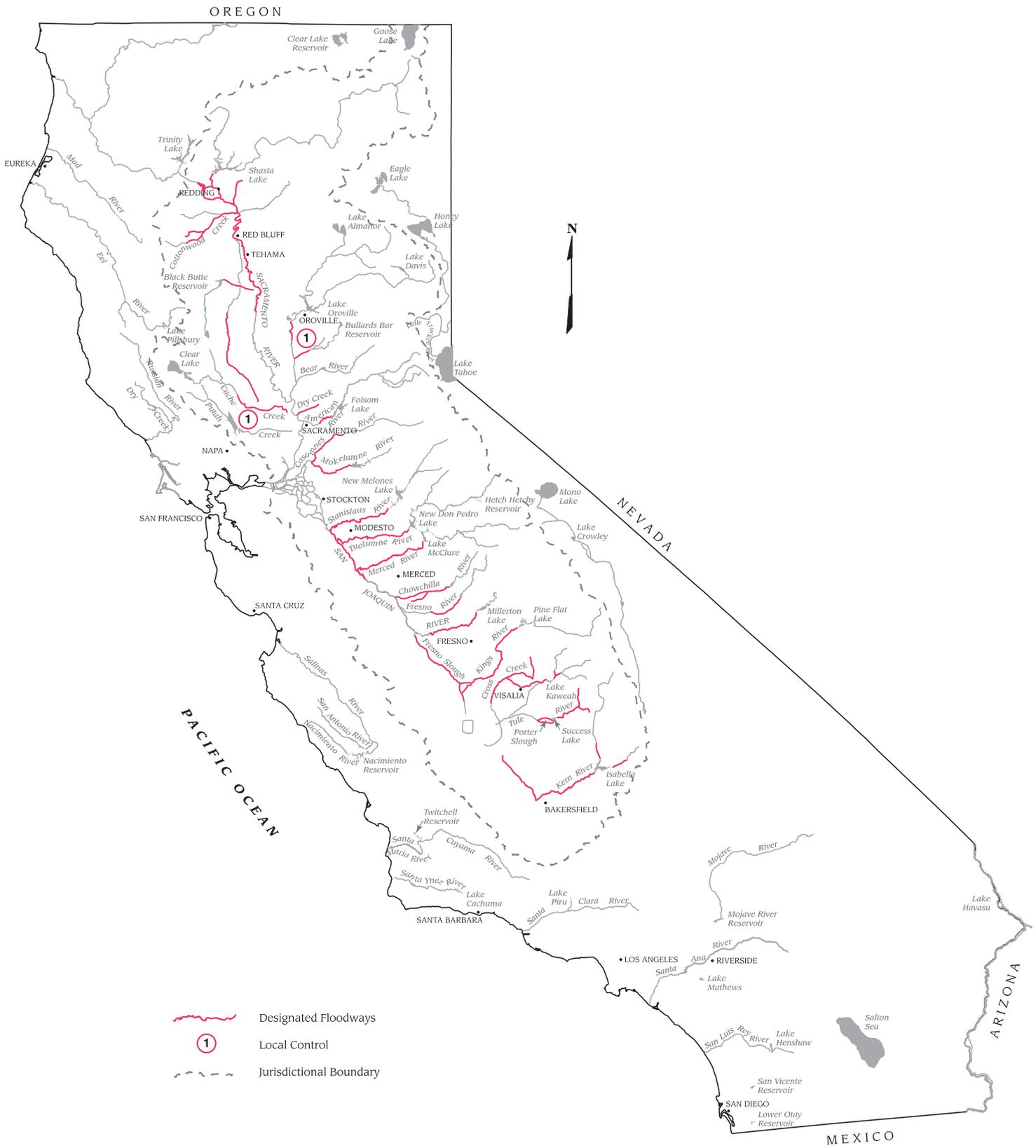












-  Designated Floodways
-  Local Control
-  Jurisdictional Boundary

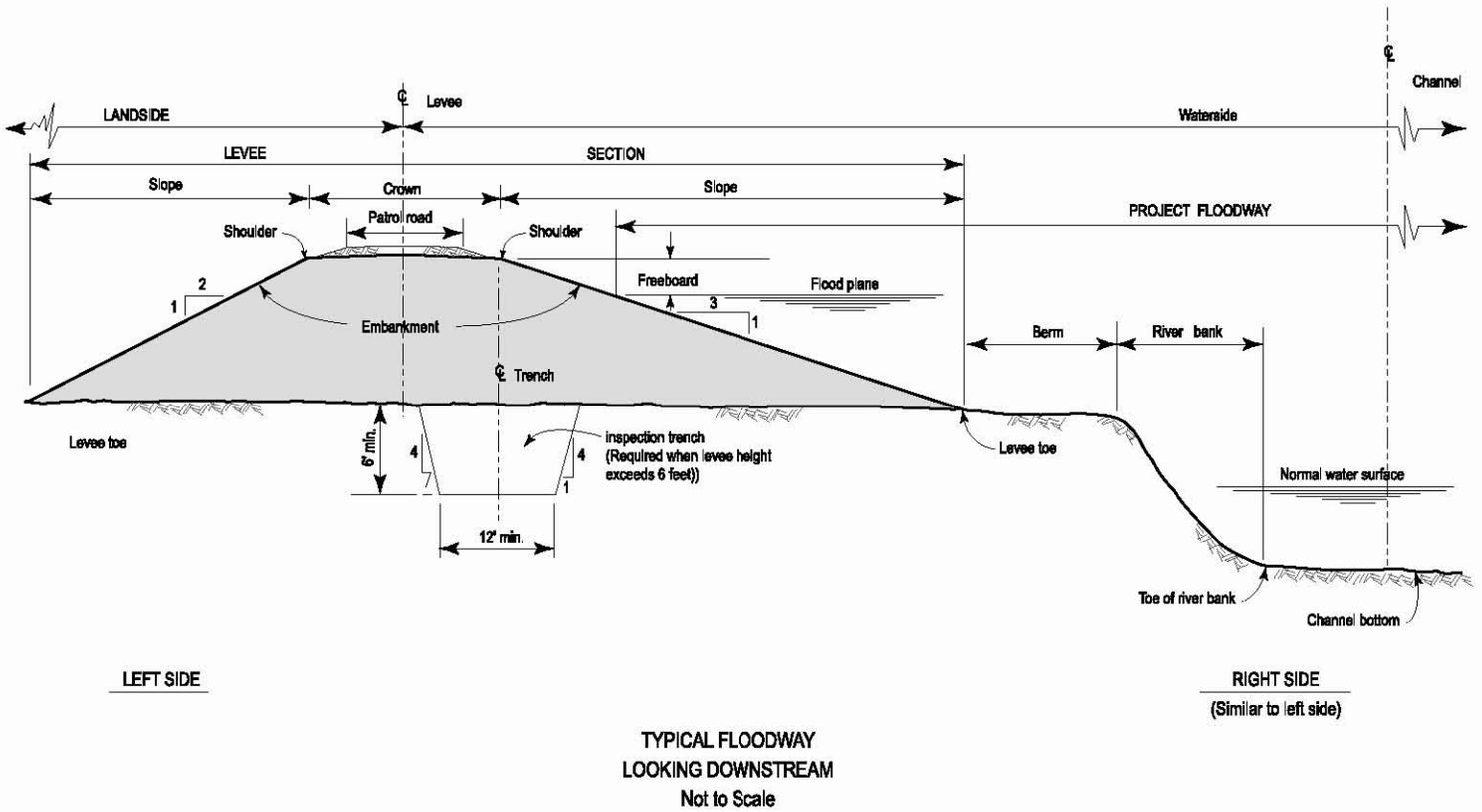
The Sacramento River and the  
San Joaquin River Flood Control System  
**Reclamation Board Adopted**  
**Designated Floodways**







# Project Levee Standards and Terminology



ITEM	MINIMUM DIMENSIONS OF STANDARD LEVEE SECTIONS			
	MAIN RIVER CHANNELS	MAJOR TRIBUTARIES	MINOR TRIBUTARIES	BY PASSES
CROWN WIDTH	20'	20'	12'	20'
LAND SLOPE	1 on 2	1 on 2	1 on 2	1 on 2
WATER SLOPE	1 on 3	1 on 3	1 on 3	1 on 3
FREEBOARD	3' (1)	3'	3'	4' to 6'
PATROL ROAD WIDTH	12	12'	10'	12'

NOTE (1) 5 FEET ON MAIN CHANNEL BELOW CACHE SLOUGH (SACRAMENTO RIVER)



# **Appendix A: Fall 2008 Levee Maintenance Deficiency Summary Report**



**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2008 Levee Maintenance Deficiency Summary Report**

**Overall LMA Ratings, Compare 2008 & 2007**

**Sacramento River Basin**

LD0001G Levee District No. 0001G (Glenn County)	Total LMA Miles		12.45										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating				Overall LMA Rating								
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	2.74		2.74	22.01	0.97		0.97	7.79	-1.77		-1.77	-14.22	
Trim / Thin Trees	1.14		1.14	9.16	0.11		0.11	0.88	-1.03		-1.03	-8.27	
Encroachments					0.37		0.37	2.97	0.37		0.37	2.97	
Animal Control					0.74		0.74	5.94	0.74		0.74	5.94	
Erosion / Bank Caving	0.01	0.19	0.77	6.18					-0.01	-0.19	-0.77	-6.18	
<i>LMA Totals:</i>	3.89	0.19	4.65	37.35	2.19	0.00	2.19	17.59	-1.70	-0.19	-2.46	-19.76	

LD0001S Levee District No. 0001S (Sutter County)	Total LMA Miles		16.65										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating				Overall LMA Rating								
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Trim / Thin Trees	0.84		0.84	5.05					-0.84		-0.84	-5.05	
Encroachments	0.85		0.85	5.11					-0.85		-0.85	-5.11	
Erosion / Bank Caving		0.23	0.92	5.53					0.00	-0.23	-0.92	-5.53	
<i>LMA Totals:</i>	1.69	0.23	2.61	15.68	0.00	0.00	0.00	0.00	-1.69	-0.23	-2.61	-15.68	

LD0002 Levee District No. 0002	Total LMA Miles		4.89										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating				Overall LMA Rating								
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Trim / Thin Trees	0.17		0.17	3.48					-0.17		-0.17	-3.48	
<i>LMA Totals:</i>	0.17	0.00	0.17	3.48	0.00	0.00	0.00	0.00	-0.17	0.00	-0.17	-3.48	

LD0003 Levee District No. 0003	Total LMA Miles		12.24										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating				Overall LMA Rating								
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	0.20		0.20	1.63					-0.20		-0.20	-1.63	
Trim / Thin Trees	0.29		0.29	2.37					-0.29		-0.29	-2.37	
Encroachments	0.05		0.05	0.41	0.01		0.01	0.08	-0.04		-0.04	-0.33	
Animal Control					0.66		0.66	5.39	0.66		0.66	5.39	
Slope Stability					0.03		0.03	0.25	0.03		0.03	0.25	
Erosion / Bank Caving	0.02		0.02	0.16					-0.02		-0.02	-0.16	
Crown Surface / Depressions / Rutting	0.02		0.02	0.16	0.04		0.04	0.33	0.02		0.02	0.16	
<i>LMA Totals:</i>	0.58	0.00	0.58	4.74	0.74	0.00	0.74	6.05	0.16	0.00	0.16	1.31	

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2008 Levee Maintenance Deficiency Summary Report**

**Overall LMA Ratings, Compare 2008 & 2007**

**Sacramento River Basin (cont.)**

<b>LD0009</b>	Total LMA Miles		<b>6.24</b>									
<b>Levee District No. 0009</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Animal Control					0.01		0.01	<b>0.16</b>	<b>0.01</b>		<b>0.01</b>	<b>0.16</b>
Erosion / Bank Caving					0.07		0.07	<b>1.12</b>	<b>0.07</b>		<b>0.07</b>	<b>1.12</b>
<i>LMA Totals:</i>	0.00	0.00	0.00	<b>0.00</b>	0.08	0.00	0.08	<b>1.28</b>	<b>0.08</b>	0.00	<b>0.08</b>	<b>1.28</b>

<b>MA0001</b>	Total LMA Miles		<b>17.10</b>									
<b>Maintenance Area 0001</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.33		0.33	<b>1.93</b>	0.01		0.01	<b>0.06</b>	<b>-0.32</b>		<b>-0.32</b>	<b>-1.87</b>
Trim / Thin Trees	1.21		1.21	<b>7.08</b>	0.05		0.05	<b>0.29</b>	<b>-1.16</b>		<b>-1.16</b>	<b>-6.78</b>
Encroachments	0.25		0.25	<b>1.46</b>	0.06		0.06	<b>0.35</b>	<b>-0.19</b>		<b>-0.19</b>	<b>-1.11</b>
Animal Control					1.90		1.90	<b>11.11</b>	<b>1.90</b>		<b>1.90</b>	<b>11.11</b>
Erosion / Bank Caving	0.04		0.04	<b>0.23</b>	0.01		0.01	<b>0.06</b>	<b>-0.03</b>		<b>-0.03</b>	<b>-0.18</b>
<i>LMA Totals:</i>	1.83	0.00	1.83	<b>10.70</b>	2.03	0.00	2.03	<b>11.87</b>	<b>0.20</b>	0.00	<b>0.20</b>	<b>1.17</b>

<b>MA0003</b>	Total LMA Miles		<b>5.20</b>									
<b>Maintenance Area 0003</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Encroachments					0.12		0.12	<b>2.31</b>	<b>0.12</b>		<b>0.12</b>	<b>2.31</b>
Animal Control					0.01		0.01	<b>0.19</b>	<b>0.01</b>		<b>0.01</b>	<b>0.19</b>
<i>LMA Totals:</i>	0.00	0.00	0.00	<b>0.00</b>	0.13	0.00	0.13	<b>2.50</b>	<b>0.13</b>	0.00	<b>0.13</b>	<b>2.50</b>

<b>MA0004</b>	Total LMA Miles		<b>3.40</b>									
<b>Maintenance Area 0004</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Trim / Thin Trees	0.18		0.18	<b>5.29</b>					<b>-0.18</b>		<b>-0.18</b>	<b>-5.29</b>
Animal Control	0.03		0.03	<b>0.88</b>	0.01		0.01	<b>0.29</b>	<b>-0.02</b>		<b>-0.02</b>	<b>-0.59</b>
<i>LMA Totals:</i>	0.21	0.00	0.21	<b>6.18</b>	0.01	0.00	0.01	<b>0.29</b>	<b>-0.20</b>	0.00	<b>-0.20</b>	<b>-5.88</b>

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2008 Levee Maintenance Deficiency Summary Report**

**Overall LMA Ratings, Compare 2008 & 2007**

**Sacramento River Basin (cont.)**

MA0005 Maintenance Area 0005	Total LMA Miles		33.40										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating		M		Overall LMA Rating		M *						
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	0.21		0.21	0.63	0.10		0.10	0.30	-0.11		-0.11	-0.33	
Trim / Thin Trees	0.61		0.61	1.83	0.20		0.20	0.60	-0.41		-0.41	-1.23	
Encroachments	2.21		2.21	6.62	0.05		0.05	0.15	-2.16		-2.16	-6.47	
Animal Control					0.37		0.37	1.11	0.37		0.37	1.11	
Slope Stability					0.02		0.02	0.06	0.02		0.02	0.06	
Crown Surface / Depressions / Rutting	1.50		1.50	4.49					-1.50		-1.50	-4.49	
Repair Gates					0.01		0.01	0.03	0.01		0.01	0.03	
Boat Survey Erosion						0.01	0.04	0.12	0.00	0.01	0.04	0.12	
<i>LMA Totals:</i>	4.53	0.00	4.53	13.56	0.75	0.01	0.79	2.37*	-3.78	0.01	-3.74	-11.20	

MA0007 Maintenance Area 0007	Total LMA Miles		12.10										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating		U		Overall LMA Rating		A						
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	1.09		1.09	9.01					-1.09		-1.09	-9.01	
Trim / Thin Trees	0.25		0.25	2.07					-0.25		-0.25	-2.07	
Encroachments	0.92		0.92	7.60	0.02		0.02	0.17	-0.90		-0.90	-7.44	
Animal Control	0.04		0.04	0.33	0.03		0.03	0.25	-0.01		-0.01	-0.08	
Erosion / Bank Caving	0.10	0.18	0.82	6.78	0.07		0.07	0.58	-0.03	-0.18	-0.75	-6.20	
<i>LMA Totals:</i>	2.40	0.18	3.12	25.79	0.12	0.00	0.12	0.99	-2.28	-0.18	-3.00	-24.79	

MA0009 Maintenance Area 0009	Total LMA Miles		19.60										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating		M		Overall LMA Rating		M *						
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	0.75		0.75	3.83	0.15		0.15	0.77	-0.60		-0.60	-3.06	
Trim / Thin Trees	0.01		0.01	0.05	0.17		0.17	0.87	0.16		0.16	0.82	
Encroachments	0.02		0.02	0.10	0.05		0.05	0.26	0.03		0.03	0.15	
Animal Control					0.01		0.01	0.05	0.01		0.01	0.05	
Slope Stability	0.01		0.01	0.05					-0.01		-0.01	-0.05	
Erosion / Bank Caving	0.01	0.29	1.17	5.97					-0.01	-0.29	-1.17	-5.97	
Boat Survey Erosion						0.04	0.16	0.82	0.00	0.04	0.16	0.82	
<i>LMA Totals:</i>	0.80	0.29	1.96	10.00	0.38	0.04	0.54	2.76*	-0.42	-0.25	-1.42	-7.24	

MA0012 Maintenance Area 0012	Total LMA Miles		11.30										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating		A		Overall LMA Rating		A						
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Animal Control					0.02		0.02	0.18	0.02		0.02	0.18	
<i>LMA Totals:</i>	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.18	0.02	0.00	0.02	0.18	

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2008 Levee Maintenance Deficiency Summary Report**

**Overall LMA Ratings, Compare 2008 & 2007**

**Sacramento River Basin (cont.)**

<b>MA0013</b>		Total LMA Miles		<b>42.00</b>									
<b>Maintenance Area 0013</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
		Overall LMA Rating				Overall LMA Rating							
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation						0.07		0.07	<b>0.17</b>	<b>0.07</b>		<b>0.07</b>	<b>0.17</b>
Trim / Thin Trees		0.01		0.01	<b>0.02</b>	0.26		0.26	<b>0.62</b>	<b>0.25</b>		<b>0.25</b>	<b>0.60</b>
Encroachments		0.19		0.19	<b>0.45</b>	0.55		0.55	<b>1.31</b>	<b>0.36</b>		<b>0.36</b>	<b>0.86</b>
Animal Control						0.01		0.01	<b>0.02</b>	<b>0.01</b>		<b>0.01</b>	<b>0.02</b>
Erosion / Bank Caving		0.37		0.37	<b>0.88</b>	0.17	0.36	1.61	<b>3.83</b>	<b>-0.20</b>	<b>0.36</b>	<b>1.24</b>	<b>2.95</b>
Boat Survey Erosion						0.37		0.37	<b>0.88</b>	<b>0.37</b>		<b>0.37</b>	<b>0.88</b>
<i>LMA Totals:</i>		0.57	0.00	0.57	<b>1.36</b>	1.43	0.36	2.87	<b>6.83*</b>	<b>0.86</b>	<b>0.36</b>	<b>2.30</b>	<b>5.48</b>

<b>MA0016</b>		Total LMA Miles		<b>4.10</b>									
<b>Maintenance Area 0016</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
		Overall LMA Rating				Overall LMA Rating							
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation						0.33		0.33	<b>8.05</b>	<b>0.33</b>		<b>0.33</b>	<b>8.05</b>
Encroachments		0.31		0.31	<b>7.56</b>	0.02		0.02	<b>0.49</b>	<b>-0.29</b>		<b>-0.29</b>	<b>-7.07</b>
Animal Control		0.27		0.27	<b>6.59</b>	0.25		0.25	<b>6.10</b>	<b>-0.02</b>		<b>-0.02</b>	<b>-0.49</b>
<i>LMA Totals:</i>		0.58	0.00	0.58	<b>14.15</b>	0.60	0.00	0.60	<b>14.63</b>	<b>0.02</b>	0.00	<b>0.02</b>	<b>0.49</b>

<b>NA0001</b>		Total LMA Miles		<b>34.12</b>									
<b>American River Flood Control District</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
		Overall LMA Rating				Overall LMA Rating							
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation		0.01		0.01	<b>0.03</b>					<b>-0.01</b>		<b>-0.01</b>	<b>-0.03</b>
Encroachments		1.49		1.49	<b>4.37</b>	0.02		0.02	<b>0.06</b>	<b>-1.47</b>		<b>-1.47</b>	<b>-4.31</b>
Erosion / Bank Caving		0.03	0.12	0.51	<b>1.49</b>					<b>-0.03</b>	<b>-0.12</b>	<b>-0.51</b>	<b>-1.49</b>
<i>LMA Totals:</i>		1.53	0.12	2.01	<b>5.89*</b>	0.02	0.00	0.02	<b>0.06</b>	<b>-1.51</b>	<b>-0.12</b>	<b>-1.99</b>	<b>-5.83</b>

<b>NA0002</b>		Total LMA Miles		<b>19.30</b>									
<b>Brannan Andrus Levee Maintenance District</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
		Overall LMA Rating				Overall LMA Rating							
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation		22.91	12.77	73.99	<b>383.37</b>	0.78	0.57	3.06	<b>15.85</b>	<b>-22.13</b>	<b>-12.20</b>	<b>-70.93</b>	<b>-367.51</b>
Trim / Thin Trees		4.38	1.12	8.86	<b>45.91</b>	0.61	0.44	2.37	<b>12.28</b>	<b>-3.77</b>	<b>-0.68</b>	<b>-6.49</b>	<b>-33.63</b>
Encroachments		0.01		0.01	<b>0.05</b>	0.02		0.02	<b>0.10</b>	<b>0.01</b>		<b>0.01</b>	<b>0.05</b>
Erosion / Bank Caving			0.21	0.84	<b>4.35</b>					0.00	<b>-0.21</b>	<b>-0.84</b>	<b>-4.35</b>
Boat Survey Erosion						0.01		0.04	<b>0.21</b>	0.00	<b>0.01</b>	<b>0.04</b>	<b>0.21</b>
<i>LMA Totals:</i>		27.30	14.10	83.70	<b>433.68</b>	1.41	1.02	5.49	<b>28.45</b>	<b>-25.89</b>	<b>-13.08</b>	<b>-78.21</b>	<b>-405.23</b>

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

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**Sacramento River Basin (cont.)**

<b>NA0003</b>	Total LMA Miles		<b>24.74</b>									
<b>Butte County Public Works</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.01		0.01	<b>0.04</b>	0.01		0.01	<b>0.04</b>	0.00			<b>0.00</b>
Trim / Thin Trees	0.07		0.07	<b>0.28</b>					-0.07		-0.07	<b>-0.28</b>
Encroachments					0.41		0.41	<b>1.66</b>	<b>0.41</b>		<b>0.41</b>	<b>1.66</b>
Animal Control					0.05		0.05	<b>0.20</b>	<b>0.05</b>		<b>0.05</b>	<b>0.20</b>
Slope Stability					0.01		0.01	<b>0.04</b>	<b>0.01</b>		<b>0.01</b>	<b>0.04</b>
Erosion / Bank Caving	0.10		0.10	<b>0.40</b>					-0.10		-0.10	<b>-0.40</b>
Crown Surface / Depressions / Rutting	0.39		0.39	<b>1.58</b>					-0.39		-0.39	<b>-1.58</b>
<i>LMA Totals:</i>	0.57	0.00	0.57	<b>2.30</b>	0.48	0.00	0.48	<b>1.94</b>	-0.09	0.00	-0.09	<b>-0.36</b>

<b>NA0004</b>	Total LMA Miles		<b>11.40</b>									
<b>Marysville Levee Commission</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	1.16		1.16	<b>10.18</b>					-1.16		-1.16	<b>-10.18</b>
<i>LMA Totals:</i>	1.16	0.00	1.16	<b>10.18</b>	0.00	0.00	0.00	<b>0.00</b>	-1.16	0.00	-1.16	<b>-10.18</b>

<b>NA0005</b>	Total LMA Miles		<b>3.60</b>									
<b>City of Sacramento</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation					0.01		0.01	<b>0.28</b>	<b>0.01</b>		<b>0.01</b>	<b>0.28</b>
Trim / Thin Trees	1.66		1.66	<b>46.11</b>					-1.66		-1.66	<b>-46.11</b>
<i>LMA Totals:</i>	1.66	0.00	1.66	<b>46.11</b>	0.01	0.00	0.01	<b>0.28</b>	-1.65	0.00	-1.65	<b>-45.83</b>

<b>NA0006</b>	Total LMA Miles		<b>1.50</b>									
<b>Eastern Honcut Creek</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	3.00		3.00	<b>200.00</b>	2.96		2.96	<b>197.33</b>	-0.04		-0.04	<b>-2.67</b>
Trim / Thin Trees	0.10		0.10	<b>6.67</b>					-0.10		-0.10	<b>-6.67</b>
Encroachments	0.31		0.31	<b>20.67</b>					-0.31		-0.31	<b>-20.67</b>
Crown Surface / Depressions / Rutting	0.05		0.05	<b>3.33</b>	0.73		0.73	<b>48.67</b>	<b>0.68</b>		<b>0.68</b>	<b>45.33</b>
<i>LMA Totals:</i>	3.46	0.00	3.46	<b>230.67</b>	3.69	0.00	3.69	<b>246.00</b>	<b>0.23</b>	0.00	<b>0.23</b>	<b>15.33</b>

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**Sacramento River Basin (cont.)**

<b>NA0007</b>	Total LMA Miles		<b>3.01</b>									
<b>East Interceptor Canal</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	2.45		2.45	<b>81.40</b>	3.17		3.17	<b>105.32</b>	<b>0.72</b>		<b>0.72</b>	<b>23.92</b>
Trim / Thin Trees	0.15		0.15	<b>4.98</b>					<b>-0.15</b>		<b>-0.15</b>	<b>-4.98</b>
Encroachments	0.13		0.13	<b>4.32</b>	0.12		0.12	<b>3.99</b>	<b>-0.01</b>		<b>-0.01</b>	<b>-0.33</b>
Erosion / Bank Caving					0.39		0.39	<b>12.96</b>	<b>0.39</b>		<b>0.39</b>	<b>12.96</b>
Crown Surface / Depressions / Rutting	0.40		0.40	<b>13.29</b>					<b>-0.40</b>		<b>-0.40</b>	<b>-13.29</b>
<i>LMA Totals:</i>	3.13	0.00	3.13	<b>103.99</b>	3.68	0.00	3.68	<b>122.26</b>	<b>0.55</b>	0.00	<b>0.55</b>	<b>18.27</b>

<b>NA0008</b>	Total LMA Miles		<b>12.60</b>									
<b>Knights Landing Ridge Drainage District</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.28		0.28	<b>2.22</b>	0.08		0.08	<b>0.64</b>	<b>-0.20</b>		<b>-0.20</b>	<b>-1.59</b>
Trim / Thin Trees	0.11		0.11	<b>0.87</b>	0.01		0.01	<b>0.08</b>	<b>-0.10</b>		<b>-0.10</b>	<b>-0.79</b>
Encroachments	0.54		0.54	<b>4.29</b>	0.01		0.01	<b>0.08</b>	<b>-0.53</b>		<b>-0.53</b>	<b>-4.21</b>
Animal Control					0.05		0.05	<b>0.40</b>	<b>0.05</b>		<b>0.05</b>	<b>0.40</b>
Erosion / Bank Caving	2.27		2.27	<b>18.02</b>					<b>-2.27</b>		<b>-2.27</b>	<b>-18.02</b>
Crown Surface / Depressions / Rutting	6.67		6.67	<b>52.94</b>					<b>-6.67</b>		<b>-6.67</b>	<b>-52.94</b>
Boat Survey Erosion					2.27		2.27	<b>18.02</b>	<b>2.27</b>		<b>2.27</b>	<b>18.02</b>
<i>LMA Totals:</i>	9.87	0.00	9.87	<b>78.33</b>	2.42	0.00	2.42	<b>19.21</b>	<b>-7.45</b>	0.00	<b>-7.45</b>	<b>-59.13</b>

<b>NA0012</b>	Total LMA Miles		<b>0.59</b>									
<b>Solano County Public Works (Mellin Levee)</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.15		0.15	<b>25.42</b>	0.59		0.59	<b>100.00</b>	<b>0.44</b>		<b>0.44</b>	<b>74.58</b>
Encroachments	0.03		0.03	<b>5.09</b>	0.02		0.02	<b>3.39</b>	<b>-0.01</b>		<b>-0.01</b>	<b>-1.70</b>
Slope Stability	0.06		0.06	<b>10.17</b>	0.01		0.01	<b>1.70</b>	<b>-0.05</b>		<b>-0.05</b>	<b>-8.47</b>
Crown Surface / Depressions / Rutting	0.19		0.19	<b>32.20</b>	0.31		0.31	<b>52.54</b>	<b>0.12</b>		<b>0.12</b>	<b>20.34</b>
<i>LMA Totals:</i>	0.43	0.00	0.43	<b>72.88</b>	0.93	0.00	0.93	<b>157.63</b>	<b>0.50</b>	0.00	<b>0.50</b>	<b>84.75</b>

<b>NA0014</b>	Total LMA Miles		<b>0.78</b>									
<b>Murphy Slough at M&amp;T Ranch</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.31	0.82	3.59	<b>460.26</b>	1.30		1.30	<b>166.67</b>	<b>0.99</b>	<b>-0.82</b>	<b>-2.29</b>	<b>-293.59</b>
Trim / Thin Trees					0.62		0.62	<b>79.49</b>	<b>0.62</b>		<b>0.62</b>	<b>79.49</b>
<i>LMA Totals:</i>	0.31	0.82	3.59	<b>460.26</b>	1.92	0.00	1.92	<b>246.15</b>	<b>1.61</b>	<b>-0.82</b>	<b>-1.67</b>	<b>-214.10</b>

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**Sacramento River Basin (cont.)**

<b>NA0016</b>	Total LMA Miles		<b>50.24</b>									
<b>Sacramento River West Side Levee District</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>M *</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	3.99		3.99	<b>7.94</b>	0.05		0.05	<b>0.10</b>	-3.94		-3.94	<b>-7.84</b>
Trim / Thin Trees	3.68		3.68	<b>7.33</b>	0.04		0.04	<b>0.08</b>	-3.64		-3.64	<b>-7.25</b>
Encroachments	1.00		1.00	<b>1.99</b>	0.05		0.05	<b>0.10</b>	-0.95		-0.95	<b>-1.89</b>
Animal Control	100.48		100.48	<b>200.00</b>	0.15		0.15	<b>0.30</b>	-100.33		-100.33	<b>-199.70</b>
Erosion / Bank Caving	0.05		0.05	<b>0.10</b>					-0.05		-0.05	<b>-0.10</b>
Boat Survey Erosion					0.04		0.16	<b>0.32</b>	0.00	<b>0.04</b>	<b>0.16</b>	<b>0.32</b>
<i>LMA Totals:</i>	109.20	0.00	109.20	<b>217.36</b>	0.29	0.04	0.45	<b>0.90*</b>	-108.91	<b>0.04</b>	-108.75	<b>-216.46</b>

<b>NA0018</b>	Total LMA Miles		<b>0.30</b>									
<b>California Department of Fish and Game</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>A</b>				Overall LMA Rating <b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
No Items									0.00			<b>0.00</b>
<i>LMA Totals:</i>	0.00	0.00	0.00	<b>0.00</b>	0.00	0.00	0.00	<b>0.00</b>	0.00	0.00	0.00	<b>0.00</b>

<b>NA0019</b>	Total LMA Miles		<b>13.64</b>									
<b>Tehama County Flood Control and Water Conservation District</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>M</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	1.46		1.46	<b>10.70</b>	0.66		0.66	<b>4.84</b>	-0.80		-0.80	<b>-5.87</b>
Trim / Thin Trees	3.48		3.48	<b>25.51</b>	0.14		0.14	<b>1.03</b>	-3.34		-3.34	<b>-24.49</b>
Encroachments	0.90		0.90	<b>6.60</b>	0.65		0.65	<b>4.77</b>	-0.25		-0.25	<b>-1.83</b>
Animal Control					0.01		0.01	<b>0.07</b>	<b>0.01</b>		<b>0.01</b>	<b>0.07</b>
Slope Stability					0.25		0.25	<b>1.83</b>	<b>0.25</b>		<b>0.25</b>	<b>1.83</b>
Erosion / Bank Caving	0.20	0.05	0.40	<b>2.93</b>	0.01		0.01	<b>0.07</b>	-0.19	-0.05	-0.39	<b>-2.86</b>
Crown Surface / Depressions / Rutting	0.25		0.25	<b>1.83</b>					-0.25		-0.25	<b>-1.83</b>
Boat Survey Erosion					0.07		0.07	<b>0.51</b>	<b>0.07</b>		<b>0.07</b>	<b>0.51</b>
<i>LMA Totals:</i>	6.29	0.05	6.49	<b>47.58</b>	1.79	0.00	1.79	<b>13.12</b>	-4.50	-0.05	-4.70	<b>-34.46</b>

<b>NA0020</b>	Total LMA Miles		<b>1.75</b>									
<b>West Interceptor Canal</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>M</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Trim / Thin Trees	0.52		0.52	<b>29.71</b>	0.24		0.24	<b>13.71</b>	-0.28		-0.28	<b>-16.00</b>
Encroachments	0.04		0.04	<b>2.29</b>	0.04		0.04	<b>2.29</b>	0.00			<b>0.00</b>
Erosion / Bank Caving	0.02		0.02	<b>1.14</b>	0.04		0.04	<b>2.29</b>	<b>0.02</b>		<b>0.02</b>	<b>1.14</b>
<i>LMA Totals:</i>	0.58	0.00	0.58	<b>33.14</b>	0.32	0.00	0.32	<b>18.29</b>	-0.26	0.00	-0.26	<b>-14.86</b>

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<b>NA0021</b>	Total LMA Miles		<b>0.29</b>									
<b>Yolo County Public Works</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>M</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.66		0.66	<b>227.59</b>					-0.66		-0.66	<b>-227.59</b>
Trim / Thin Trees	0.23		0.23	<b>79.31</b>	0.05		0.05	<b>17.24</b>	-0.18		-0.18	<b>-62.07</b>
Encroachments	0.03		0.03	<b>10.35</b>					-0.03		-0.03	<b>-10.35</b>
Animal Control	0.29		0.29	<b>100.00</b>					-0.29		-0.29	<b>-100.00</b>
<i>LMA Totals:</i>	1.21	0.00	1.21	<b>417.24</b>	0.05	0.00	0.05	<b>17.24</b>	-1.16	0.00	-1.16	<b>-400.00</b>

<b>NA0022</b>	Total LMA Miles		<b>5.97</b>									
<b>Yolo County Service Area 6</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>M</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	5.02		5.02	<b>84.09</b>	0.56		0.56	<b>9.38</b>	-4.46		-4.46	<b>-74.71</b>
Trim / Thin Trees	1.05		1.05	<b>17.59</b>	0.01		0.01	<b>0.17</b>	-1.04		-1.04	<b>-17.42</b>
Encroachments	4.19		4.19	<b>70.18</b>	0.05		0.05	<b>0.84</b>	-4.14		-4.14	<b>-69.35</b>
Erosion / Bank Caving	0.04		0.04	<b>0.67</b>					-0.04		-0.04	<b>-0.67</b>
<i>LMA Totals:</i>	10.30	0.00	10.30	<b>172.53</b>	0.62	0.00	0.62	<b>10.39</b>	-9.68	0.00	-9.68	<b>-162.14</b>

<b>RD0003</b>	Total LMA Miles		<b>28.60</b>									
<b>Reclamation District No. 0003</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	24.97	0.01	25.01	<b>87.45</b>	35.38		35.38	<b>123.71</b>	10.41	-0.01	10.37	<b>36.26</b>
Trim / Thin Trees	3.89		3.89	<b>13.60</b>	3.94	0.64	6.50	<b>22.73</b>	0.05	0.64	2.61	<b>9.13</b>
Encroachments	0.01		0.01	<b>0.04</b>	0.17		0.17	<b>0.59</b>	0.16		0.16	<b>0.56</b>
Slope Stability					0.06		0.06	<b>0.21</b>	0.06		0.06	<b>0.21</b>
Erosion / Bank Caving	0.29		0.29	<b>1.01</b>					-0.29		-0.29	<b>-1.01</b>
Repair Gates					0.01		0.01	<b>0.04</b>	0.01		0.01	<b>0.04</b>
Boat Survey Erosion					0.29		0.29	<b>1.01</b>	0.29		0.29	<b>1.01</b>
<i>LMA Totals:</i>	29.16	0.01	29.20	<b>102.10</b>	39.85	0.64	42.41	<b>148.29</b>	10.69	0.63	13.21	<b>46.19</b>

<b>RD0010</b>	Total LMA Miles		<b>21.90</b>									
<b>Reclamation District No. 0010</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.50		0.50	<b>2.28</b>	24.02		24.02	<b>109.68</b>	23.52		23.52	<b>107.40</b>
Trim / Thin Trees					0.05		0.05	<b>0.23</b>	0.05		0.05	<b>0.23</b>
Encroachments	0.25		0.25	<b>1.14</b>	0.02	0.12	0.50	<b>2.28</b>	-0.23	0.12	0.25	<b>1.14</b>
Animal Control	9.11		9.11	<b>41.60</b>	0.03		0.03	<b>0.14</b>	-9.08		-9.08	<b>-41.46</b>
Crown Surface / Depressions / Rutting	7.68		7.68	<b>35.07</b>					-7.68		-7.68	<b>-35.07</b>
Culverts: Inlets / Outlets					0.01		0.01	<b>0.05</b>	0.01		0.01	<b>0.05</b>
<i>LMA Totals:</i>	17.54	0.00	17.54	<b>80.09</b>	24.13	0.12	24.61	<b>112.37</b>	6.59	0.12	7.07	<b>32.28</b>

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

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<b>RD0070</b>	Total LMA Miles		<b>23.60</b>									
<b>Reclamation District No. 0070</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>M</b> *				<b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Trim / Thin Trees	0.10		0.10	<b>0.42</b>					-0.10		-0.10	<b>-0.42</b>
Animal Control					0.07		0.07	<b>0.30</b>	<b>0.07</b>		<b>0.07</b>	<b>0.30</b>
Erosion / Bank Caving	0.01	0.36	1.45	<b>6.14</b>					-0.01	-0.36	-1.45	<b>-6.14</b>
Boat Survey Erosion					0.29		0.29	<b>1.23</b>	<b>0.29</b>		<b>0.29</b>	<b>1.23</b>
<i>LMA Totals:</i>	0.11	0.36	1.55	<b>6.57*</b>	0.36	0.00	0.36	<b>1.53</b>	<b>0.25</b>	<b>-0.36</b>	<b>-1.19</b>	<b>-5.04</b>
<b>RD0108</b>	Total LMA Miles		<b>20.60</b>									
<b>Reclamation District No. 0108</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>A</b>				<b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.02		0.02	<b>0.10</b>	0.02		0.02	<b>0.10</b>	0.00			<b>0.00</b>
Animal Control	0.11		0.11	<b>0.53</b>	0.02		0.02	<b>0.10</b>	-0.09		-0.09	<b>-0.44</b>
Crown Surface / Depressions / Rutting	0.73		0.73	<b>3.54</b>					-0.73		-0.73	<b>-3.54</b>
<i>LMA Totals:</i>	0.86	0.00	0.86	<b>4.18</b>	0.04	0.00	0.04	<b>0.19</b>	<b>-0.82</b>	0.00	<b>-0.82</b>	<b>-3.98</b>
<b>RD0150</b>	Total LMA Miles		<b>18.07</b>									
<b>Reclamation District No. 0150</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>M</b> *							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	10.72	1.40	16.32	<b>90.32</b>	0.22		0.22	<b>1.22</b>	-10.50	-1.40	-16.10	<b>-89.10</b>
Trim / Thin Trees	16.84		16.84	<b>93.19</b>	0.53		0.53	<b>2.93</b>	-16.31		-16.31	<b>-90.26</b>
Encroachments	0.21		0.21	<b>1.16</b>	0.13		0.13	<b>0.72</b>	-0.08		-0.08	<b>-0.44</b>
Animal Control					0.20		0.20	<b>1.11</b>	<b>0.20</b>		<b>0.20</b>	<b>1.11</b>
Slope Stability					0.03		0.03	<b>0.17</b>	<b>0.03</b>		<b>0.03</b>	<b>0.17</b>
Erosion / Bank Caving	0.08	0.09	0.44	<b>2.43</b>	0.08		0.08	<b>0.44</b>	0.00	-0.09	-0.36	<b>-1.99</b>
Crown Surface / Depressions / Rutting					0.01		0.01	<b>0.06</b>	<b>0.01</b>		<b>0.01</b>	<b>0.06</b>
Metal Pipes	0.01		0.01	<b>0.06</b>					-0.01		-0.01	<b>-0.06</b>
Boat Survey Erosion					0.03	0.09	0.39	<b>2.16</b>	<b>0.03</b>	<b>0.09</b>	<b>0.39</b>	<b>2.16</b>
<i>LMA Totals:</i>	27.86	1.49	33.82	<b>187.16</b>	1.23	0.09	1.59	<b>8.80*</b>	<b>-26.63</b>	<b>-1.40</b>	<b>-32.23</b>	<b>-178.36</b>
<b>RD0307</b>	Total LMA Miles		<b>6.70</b>									
<b>Reclamation District No. 0307</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	7.66	6.65	34.26	<b>511.34</b>	1.33	1.94	9.09	<b>135.67</b>	-6.33	-4.71	-25.17	<b>-375.67</b>
Trim / Thin Trees	1.91	4.20	18.71	<b>279.25</b>	3.98	1.10	8.38	<b>125.07</b>	<b>2.07</b>	<b>-3.10</b>	<b>-10.33</b>	<b>-154.18</b>
Encroachments	0.02		0.02	<b>0.30</b>	0.07	0.03	0.19	<b>2.84</b>	<b>0.05</b>	<b>0.03</b>	<b>0.17</b>	<b>2.54</b>
Animal Control	13.30		13.30	<b>198.51</b>	0.06		0.06	<b>0.90</b>	-13.24		-13.24	<b>-197.61</b>
Boat Survey Erosion					0.01	0.04	0.60	<b>0.60</b>	0.00	<b>0.01</b>	<b>0.04</b>	<b>0.60</b>
<i>LMA Totals:</i>	22.89	10.85	66.29	<b>989.40</b>	5.44	3.08	17.76	<b>265.07</b>	<b>-17.45</b>	<b>-7.77</b>	<b>-48.53</b>	<b>-724.33</b>

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<b>RD0341</b>	Total LMA Miles		<b>9.70</b>									
<b>Reclamation District No. 0341</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	3.86	2.44	13.62	<b>140.41</b>	1.96	3.06	14.20	<b>146.39</b>	-1.90	<b>0.62</b>	<b>0.58</b>	<b>5.98</b>
Trim / Thin Trees	6.09		6.09	<b>62.78</b>					-6.09		-6.09	<b>-62.78</b>
Encroachments	1.46		1.46	<b>15.05</b>	0.15		0.15	<b>1.55</b>	-1.31		-1.31	<b>-13.51</b>
Slope Stability	0.12		0.12	<b>1.24</b>					-0.12		-0.12	<b>-1.24</b>
Erosion / Bank Caving		0.15	0.60	<b>6.19</b>					0.00	-0.15	-0.60	<b>-6.19</b>
Crown Surface / Depressions / Rutting	0.53		0.53	<b>5.46</b>					-0.53		-0.53	<b>-5.46</b>
<i>LMA Totals:</i>	12.06	2.59	22.42	<b>231.13</b>	2.11	3.06	14.35	<b>147.94</b>	-9.95	<b>0.47</b>	-8.07	<b>-83.20</b>

<b>RD0349</b>	Total LMA Miles		<b>12.60</b>									
<b>Reclamation District No. 0349</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	14.58		14.58	<b>115.71</b>	9.39	0.20	10.19	<b>80.87</b>	-5.19	<b>0.20</b>	-4.39	<b>-34.84</b>
Trim / Thin Trees	9.10		9.10	<b>72.22</b>	0.54		0.54	<b>4.29</b>	-8.56		-8.56	<b>-67.94</b>
Encroachments	3.14		3.14	<b>24.92</b>	0.22	0.04	0.38	<b>3.02</b>	-2.92	<b>0.04</b>	-2.76	<b>-21.91</b>
Erosion / Bank Caving	0.04	0.26	1.08	<b>8.57</b>					-0.04	-0.26	-1.08	<b>-8.57</b>
Crown Surface / Depressions / Rutting	5.44		5.44	<b>43.18</b>					-5.44		-5.44	<b>-43.18</b>
Boat Survey Erosion					0.03	0.11	0.47	<b>3.73</b>	<b>0.03</b>	<b>0.11</b>	<b>0.47</b>	<b>3.73</b>
<i>LMA Totals:</i>	32.30	0.26	33.34	<b>264.60</b>	10.18	0.35	11.58	<b>91.90</b>	-22.12	<b>0.09</b>	-21.76	<b>-172.70</b>

<b>RD0369</b>	Total LMA Miles		<b>0.80</b>									
<b>Reclamation District No. 0369</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	1.18		1.18	<b>147.50</b>	0.16	0.22	1.04	<b>130.00</b>	-1.02	<b>0.22</b>	-0.14	<b>-17.50</b>
Trim / Thin Trees	1.06		1.06	<b>132.50</b>	0.21	0.08	0.53	<b>66.25</b>	-0.85	<b>0.08</b>	-0.53	<b>-66.25</b>
<i>LMA Totals:</i>	2.24	0.00	2.24	<b>280.00</b>	0.37	0.30	1.57	<b>196.25</b>	-1.87	<b>0.30</b>	-0.67	<b>-83.75</b>

<b>RD0501</b>	Total LMA Miles		<b>20.50</b>									
<b>Reclamation District No. 0501</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	48.20		48.20	<b>235.12</b>	16.03	2.00	24.03	<b>117.22</b>	-32.17	<b>2.00</b>	-24.17	<b>-117.90</b>
Trim / Thin Trees	2.63		2.63	<b>12.83</b>	0.78	1.13	5.30	<b>25.85</b>	-1.85	<b>1.13</b>	<b>2.67</b>	<b>13.02</b>
Encroachments	2.80		2.80	<b>13.66</b>	0.01	0.03	0.13	<b>0.63</b>	-2.79	<b>0.03</b>	-2.67	<b>-13.02</b>
Animal Control					3.30		3.30	<b>16.10</b>	<b>3.30</b>		<b>3.30</b>	<b>16.10</b>
Slope Stability		0.51	2.04	<b>9.95</b>					0.00	-0.51	-2.04	<b>-9.95</b>
Erosion / Bank Caving	0.08	0.04	0.24	<b>1.17</b>	0.06		0.06	<b>0.29</b>	-0.02	-0.04	-0.18	<b>-0.88</b>
Cracking					0.29	0.33	1.61	<b>7.85</b>	<b>0.29</b>	<b>0.33</b>	<b>1.61</b>	<b>7.85</b>
Crown Surface / Depressions / Rutting					0.18		0.18	<b>0.88</b>	<b>0.18</b>		<b>0.18</b>	<b>0.88</b>
Boat Survey Erosion					0.11	0.01	0.15	<b>0.73</b>	<b>0.11</b>	<b>0.01</b>	<b>0.15</b>	<b>0.73</b>
<i>LMA Totals:</i>	53.71	0.55	55.91	<b>272.73</b>	20.76	3.50	34.76	<b>169.56</b>	-32.95	<b>2.95</b>	-21.15	<b>-103.17</b>

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<b>RD0536</b>	Total LMA Miles		<b>10.70</b>									
<b>Reclamation District No. 0536</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	1.55	0.17	2.23	<b>20.84</b>	11.54	4.41	29.18	<b>272.71</b>	<b>9.99</b>	<b>4.24</b>	<b>26.95</b>	<b>251.87</b>
Trim / Thin Trees	0.08		0.08	<b>0.75</b>	0.08		0.08	<b>0.75</b>	0.00			<b>0.00</b>
Encroachments	3.63		3.63	<b>33.93</b>					<b>-3.63</b>		<b>-3.63</b>	<b>-33.93</b>
Animal Control	0.11		0.11	<b>1.03</b>					<b>-0.11</b>		<b>-0.11</b>	<b>-1.03</b>
Erosion / Bank Caving					0.01		0.01	<b>0.09</b>	<b>0.01</b>		<b>0.01</b>	<b>0.09</b>
Cracking	6.63		6.63	<b>61.96</b>					<b>-6.63</b>		<b>-6.63</b>	<b>-61.96</b>
Crown Surface / Depressions / Rutting	5.72	1.30	10.92	<b>102.06</b>	4.78	0.67	7.46	<b>69.72</b>	<b>-0.94</b>	<b>-0.63</b>	<b>-3.46</b>	<b>-32.34</b>
Repair Gates		0.02	0.08	<b>0.75</b>					0.00	<b>-0.02</b>	<b>-0.08</b>	<b>-0.75</b>
<i>LMA Totals:</i>	<b>17.72</b>	<b>1.49</b>	<b>23.68</b>	<b>221.31</b>	<b>16.41</b>	<b>5.08</b>	<b>36.73</b>	<b>343.27</b>	<b>-1.31</b>	<b>3.59</b>	<b>13.05</b>	<b>121.96</b>
<b>RD0537</b>	Total LMA Miles		<b>6.00</b>									
<b>Reclamation District No. 0537</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	5.03		5.03	<b>83.83</b>	0.37		0.37	<b>6.17</b>	<b>-4.66</b>		<b>-4.66</b>	<b>-77.67</b>
Trim / Thin Trees	0.25		0.25	<b>4.17</b>					<b>-0.25</b>		<b>-0.25</b>	<b>-4.17</b>
Encroachments	2.02		2.02	<b>33.67</b>					<b>-2.02</b>		<b>-2.02</b>	<b>-33.67</b>
Erosion / Bank Caving	0.05		0.05	<b>0.83</b>					<b>-0.05</b>		<b>-0.05</b>	<b>-0.83</b>
Boat Survey Erosion					0.01		0.01	<b>0.17</b>	<b>0.01</b>		<b>0.01</b>	<b>0.17</b>
<i>LMA Totals:</i>	<b>7.35</b>	<b>0.00</b>	<b>7.35</b>	<b>122.50</b>	<b>0.38</b>	<b>0.00</b>	<b>0.38</b>	<b>6.33</b>	<b>-6.97</b>	<b>0.00</b>	<b>-6.97</b>	<b>-116.17</b>
<b>RD0551</b>	Total LMA Miles		<b>6.80</b>									
<b>Reclamation District No. 0551</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	1.61	0.62	4.09	<b>60.15</b>	0.99	0.14	1.55	<b>22.79</b>	<b>-0.62</b>	<b>-0.48</b>	<b>-2.54</b>	<b>-37.35</b>
Trim / Thin Trees	2.41		2.41	<b>35.44</b>	0.07		0.07	<b>1.03</b>	<b>-2.34</b>		<b>-2.34</b>	<b>-34.41</b>
Encroachments	0.01		0.01	<b>0.15</b>	0.25	0.03	0.37	<b>5.44</b>	<b>0.24</b>	<b>0.03</b>	<b>0.36</b>	<b>5.29</b>
Animal Control					1.17		1.17	<b>17.21</b>	<b>1.17</b>		<b>1.17</b>	<b>17.21</b>
Crown Surface / Depressions / Rutting	0.01		0.01	<b>0.15</b>					<b>-0.01</b>		<b>-0.01</b>	<b>-0.15</b>
<i>LMA Totals:</i>	<b>4.04</b>	<b>0.62</b>	<b>6.52</b>	<b>95.88</b>	<b>2.48</b>	<b>0.17</b>	<b>3.16</b>	<b>46.47</b>	<b>-1.56</b>	<b>-0.45</b>	<b>-3.36</b>	<b>-49.41</b>
<b>RD0554</b>	Total LMA Miles		<b>1.20</b>									
<b>Reclamation District No. 0554</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	1.07		1.07	<b>89.17</b>	0.01	0.83	3.33	<b>277.50</b>	<b>-1.06</b>	<b>0.83</b>	<b>2.26</b>	<b>188.33</b>
Trim / Thin Trees	0.75		0.75	<b>62.50</b>	0.04	0.14	0.60	<b>50.00</b>	<b>-0.71</b>	<b>0.14</b>	<b>-0.15</b>	<b>-12.50</b>
Encroachments					0.02	0.08	0.67	<b>6.67</b>	0.00	<b>0.02</b>	<b>0.08</b>	<b>6.67</b>
<i>LMA Totals:</i>	<b>1.82</b>	<b>0.00</b>	<b>1.82</b>	<b>151.67</b>	<b>0.05</b>	<b>0.99</b>	<b>4.01</b>	<b>334.17</b>	<b>-1.77</b>	<b>0.99</b>	<b>2.19</b>	<b>182.50</b>

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<b>RD0556</b>	Total LMA Miles		<b>11.20</b>									
<b>Reclamation District No. 0556</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>U</b>							
<b>Rated Item</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>
Vegetation	8.91	0.44	10.67	<b>95.27</b>	7.40	5.76	30.44	<b>271.79</b>	-1.51	5.32	19.77	<b>176.52</b>
Trim / Thin Trees	2.61		2.61	<b>23.30</b>	0.48	0.89	4.04	<b>36.07</b>	-2.13	0.89	1.43	<b>12.77</b>
Encroachments	0.40		0.40	<b>3.57</b>	0.05	0.03	0.17	<b>1.52</b>	-0.35	0.03	-0.23	<b>-2.05</b>
Slope Stability						0.29	1.16	<b>10.36</b>	0.00	0.29	1.16	<b>10.36</b>
Erosion / Bank Caving	0.36	0.48	2.28	<b>20.36</b>					-0.36	-0.48	-2.28	<b>-20.36</b>
Boat Survey Erosion					0.37	0.20	1.17	<b>10.45</b>	0.37	0.20	1.17	<b>10.45</b>
<i>LMA Totals:</i>	12.28	0.92	15.96	<b>142.50</b>	8.30	7.17	36.98	<b>330.18</b>	-3.98	6.25	21.02	<b>187.68</b>
<b>RD0563</b>	Total LMA Miles		<b>12.40</b>									
<b>Reclamation District No. 0563</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>U</b>							
<b>Rated Item</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>
Vegetation	18.43	13.81	73.67	<b>594.11</b>	18.99	0.60	21.39	<b>172.50</b>	0.56	-13.21	-52.28	<b>-421.61</b>
Trim / Thin Trees	1.72	0.62	4.20	<b>33.87</b>	0.60	0.32	1.88	<b>15.16</b>	-1.12	-0.30	-2.32	<b>-18.71</b>
Encroachments	0.28		0.28	<b>2.26</b>	1.98	0.02	2.06	<b>16.61</b>	1.70	0.02	1.78	<b>14.35</b>
Slope Stability						0.01	0.04	<b>0.32</b>	0.00	0.01	0.04	<b>0.32</b>
Erosion / Bank Caving	2.08	0.51	4.12	<b>33.23</b>					-2.08	-0.51	-4.12	<b>-33.23</b>
Boat Survey Erosion					2.10	0.51	4.14	<b>33.39</b>	2.10	0.51	4.14	<b>33.39</b>
<i>LMA Totals:</i>	22.51	14.94	82.27	<b>663.47</b>	23.67	1.46	29.51	<b>237.98</b>	1.16	-13.48	-52.76	<b>-425.48</b>
<b>RD0755</b>	Total LMA Miles		<b>1.90</b>									
<b>Reclamation District No. 0755</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>U</b>							
<b>Rated Item</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>
Vegetation	1.29		1.29	<b>67.90</b>	0.36		0.36	<b>18.95</b>	-0.93		-0.93	<b>-48.95</b>
Trim / Thin Trees	0.33		0.33	<b>17.37</b>	0.01		0.01	<b>0.53</b>	-0.32		-0.32	<b>-16.84</b>
Encroachments	0.19		0.19	<b>10.00</b>	0.01	0.01	0.05	<b>2.63</b>	-0.18	0.01	-0.14	<b>-7.37</b>
Animal Control	0.12		0.12	<b>6.32</b>	0.06		0.06	<b>3.16</b>	-0.06		-0.06	<b>-3.16</b>
Slope Stability					0.04		0.04	<b>2.11</b>	0.04		0.04	<b>2.11</b>
Erosion / Bank Caving		0.09	0.36	<b>18.95</b>					0.00	-0.09	-0.36	<b>-18.95</b>
Crown Surface / Depressions / Rutting					0.01		0.01	<b>0.53</b>	0.01		0.01	<b>0.53</b>
<i>LMA Totals:</i>	1.93	0.09	2.29	<b>120.53</b>	0.49	0.01	0.53	<b>27.89</b>	-1.44	-0.08	-1.76	<b>-92.63</b>
<b>RD0765</b>	Total LMA Miles		<b>1.70</b>									
<b>Reclamation District No. 0765</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>U</b>							
<b>Rated Item</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>	<b>M Miles</b>	<b>U Miles</b>	<b>M+4U Miles</b>	<b>Thresh. %</b>
Vegetation		0.36	1.44	<b>84.71</b>	0.07	0.24	1.03	<b>60.59</b>	0.07	-0.12	-0.41	<b>-24.12</b>
Trim / Thin Trees	0.83	0.17	1.51	<b>88.82</b>	0.53	0.14	1.09	<b>64.12</b>	-0.30	-0.03	-0.42	<b>-24.71</b>
Encroachments					0.01		0.01	<b>0.59</b>	0.01		0.01	<b>0.59</b>
<i>LMA Totals:</i>	0.83	0.53	2.95	<b>173.53</b>	0.61	0.38	2.13	<b>125.29</b>	-0.22	-0.15	-0.82	<b>-48.24</b>

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<b>RD0784</b>	Total LMA Miles		<b>35.20</b>									
<b>Reclamation District No. 0784</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	1.01		1.01	<b>2.87</b>	0.71		0.71	<b>2.02</b>	-0.30		-0.30	<b>-0.85</b>
Encroachments	2.10		2.10	<b>5.97</b>					-2.10		-2.10	<b>-5.97</b>
Erosion / Bank Caving	0.01	0.49	1.97	<b>5.60</b>	0.03		0.03	<b>0.09</b>	0.02	-0.49	-1.94	<b>-5.51</b>
Crown Surface / Depressions / Rutting	0.32		0.32	<b>0.91</b>					-0.32		-0.32	<b>-0.91</b>
<i>LMA Totals:</i>	3.44	0.49	5.40	<b>15.34</b>	0.74	0.00	0.74	<b>2.10</b>	-2.70	-0.49	-4.66	<b>-13.24</b>
<b>RD0785</b>	Total LMA Miles		<b>5.60</b>									
<b>Reclamation District No. 0785</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	2.26		2.26	<b>40.36</b>	0.15		0.15	<b>2.68</b>	-2.11		-2.11	<b>-37.68</b>
Trim / Thin Trees	0.45		0.45	<b>8.04</b>					-0.45		-0.45	<b>-8.04</b>
Encroachments	0.16		0.16	<b>2.86</b>					-0.16		-0.16	<b>-2.86</b>
Erosion / Bank Caving	0.27		0.27	<b>4.82</b>					-0.27		-0.27	<b>-4.82</b>
<i>LMA Totals:</i>	3.14	0.00	3.14	<b>56.07</b>	0.15	0.00	0.15	<b>2.68</b>	-2.99	0.00	-2.99	<b>-53.39</b>
<b>RD0787</b>	Total LMA Miles		<b>4.40</b>									
<b>Reclamation District No. 0787</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Trim / Thin Trees	0.10		0.10	<b>2.27</b>					-0.10		-0.10	<b>-2.27</b>
Encroachments	0.06		0.06	<b>1.36</b>					-0.06		-0.06	<b>-1.36</b>
Animal Control					0.04		0.04	<b>0.91</b>	0.04		0.04	<b>0.91</b>
<i>LMA Totals:</i>	0.16	0.00	0.16	<b>3.64</b>	0.04	0.00	0.04	<b>0.91</b>	-0.12	0.00	-0.12	<b>-2.73</b>
<b>RD0817</b>	Total LMA Miles		<b>9.20</b>									
<b>Reclamation District No. 0817</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.99		0.99	<b>10.76</b>	0.11		0.11	<b>1.20</b>	-0.88		-0.88	<b>-9.57</b>
Trim / Thin Trees	0.33		0.33	<b>3.59</b>					-0.33		-0.33	<b>-3.59</b>
Encroachments	0.56		0.56	<b>6.09</b>	0.01		0.01	<b>0.11</b>	-0.55		-0.55	<b>-5.98</b>
Slope Stability	0.85		0.85	<b>9.24</b>					-0.85		-0.85	<b>-9.24</b>
Crown Surface / Depressions / Rutting	1.93		1.93	<b>20.98</b>	0.23		0.23	<b>2.50</b>	-1.70		-1.70	<b>-18.48</b>
Metal Pipes		0.01	0.04	<b>0.43</b>					0.00	-0.01	-0.04	<b>-0.43</b>
<i>LMA Totals:</i>	4.66	0.01	4.70	<b>51.09</b>	0.35	0.00	0.35	<b>3.80</b>	-4.31	-0.01	-4.35	<b>-47.28</b>

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<b>RD0827</b>	Total LMA Miles		<b>4.20</b>									
<b>Reclamation District No. 0827</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>M</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.98		0.98	<b>23.33</b>	0.47		0.47	<b>11.19</b>	-0.51		-0.51	<b>-12.14</b>
Trim / Thin Trees	0.45		0.45	<b>10.71</b>	0.13		0.13	<b>3.10</b>	-0.32		-0.32	<b>-7.62</b>
Encroachments	1.46		1.46	<b>34.76</b>					-1.46		-1.46	<b>-34.76</b>
Animal Control					0.02		0.02	<b>0.48</b>	<b>0.02</b>		<b>0.02</b>	<b>0.48</b>
Crown Surface / Depressions / Rutting	2.49		2.49	<b>59.29</b>					-2.49		-2.49	<b>-59.29</b>
<i>LMA Totals:</i>	5.38	0.00	5.38	<b>128.10</b>	0.62	0.00	0.62	<b>14.76</b>	-4.76	0.00	-4.76	<b>-113.33</b>

<b>RD0900</b>	Total LMA Miles		<b>13.60</b>									
<b>Reclamation District No. 0900</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	2.39		2.39	<b>17.57</b>	4.09	0.64	6.65	<b>48.90</b>	<b>1.70</b>	<b>0.64</b>	<b>4.26</b>	<b>31.32</b>
Trim / Thin Trees	0.06		0.06	<b>0.44</b>	1.27	0.12	1.75	<b>12.87</b>	<b>1.21</b>	<b>0.12</b>	<b>1.69</b>	<b>12.43</b>
Encroachments	2.08		2.08	<b>15.29</b>	0.02		0.02	<b>0.15</b>	-2.06		-2.06	<b>-15.15</b>
Animal Control					0.29		0.29	<b>2.13</b>	<b>0.29</b>		<b>0.29</b>	<b>2.13</b>
Erosion / Bank Caving	0.04	0.09	0.40	<b>2.94</b>					-0.04	-0.09	-0.40	<b>-2.94</b>
Cracking					0.02		0.02	<b>0.15</b>	<b>0.02</b>		<b>0.02</b>	<b>0.15</b>
Crown Surface / Depressions / Rutting	0.94		0.94	<b>6.91</b>	1.64	0.18	2.36	<b>17.35</b>	<b>0.70</b>	<b>0.18</b>	<b>1.42</b>	<b>10.44</b>
Boat Survey Erosion						0.01	0.04	<b>0.29</b>	0.00	0.01	0.04	<b>0.29</b>
<i>LMA Totals:</i>	5.51	0.09	5.87	<b>43.16</b>	7.33	0.95	11.13	<b>81.84</b>	<b>1.82</b>	<b>0.86</b>	<b>5.26</b>	<b>38.68</b>

<b>RD0999</b>	Total LMA Miles		<b>32.40</b>									
<b>Reclamation District No. 0999</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation		14.06	56.24	<b>173.58</b>	1.92	0.35	3.32	<b>10.25</b>	<b>1.92</b>	<b>-13.71</b>	<b>-52.92</b>	<b>-163.33</b>
Trim / Thin Trees	12.22	3.00	24.22	<b>74.75</b>	4.06	1.28	9.18	<b>28.33</b>	-8.16	-1.72	-15.04	<b>-46.42</b>
Encroachments	0.31		0.31	<b>0.96</b>	0.91		0.91	<b>2.81</b>	<b>0.60</b>		<b>0.60</b>	<b>1.85</b>
Animal Control					1.91		1.91	<b>5.90</b>	<b>1.91</b>		<b>1.91</b>	<b>5.90</b>
Erosion / Bank Caving	0.35	0.27	1.43	<b>4.41</b>					-0.35	-0.27	-1.43	<b>-4.41</b>
Crown Surface / Depressions / Rutting	0.40		0.40	<b>1.24</b>	0.29		0.29	<b>0.90</b>	-0.11		-0.11	<b>-0.34</b>
Boat Survey Erosion					0.02	0.34	1.38	<b>4.26</b>	<b>0.02</b>	<b>0.34</b>	<b>1.38</b>	<b>4.26</b>
<i>LMA Totals:</i>	13.28	17.33	82.60	<b>254.94</b>	9.11	1.97	16.99	<b>52.44</b>	-4.17	-15.36	-65.61	<b>-202.50</b>

<b>RD1000</b>	Total LMA Miles		<b>42.60</b>									
<b>Reclamation District No. 1000</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>A</b>				Overall LMA Rating <b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation					1.30		1.30	<b>3.05</b>	<b>1.30</b>		<b>1.30</b>	<b>3.05</b>
Encroachments	2.14		2.14	<b>5.02</b>					-2.14		-2.14	<b>-5.02</b>
Erosion / Bank Caving	0.13		0.13	<b>0.31</b>					-0.13		-0.13	<b>-0.31</b>
Boat Survey Erosion					0.13		0.13	<b>0.31</b>	<b>0.13</b>		<b>0.13</b>	<b>0.31</b>
<i>LMA Totals:</i>	2.27	0.00	2.27	<b>5.33</b>	1.43	0.00	1.43	<b>3.36</b>	-0.84	0.00	-0.84	<b>-1.97</b>

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

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<b>RD1001</b>		Total LMA Miles		<b>44.00</b>									
<b>Reclamation District No. 1001</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
		Overall LMA Rating		<b>U</b>		Overall LMA Rating		<b>M</b>					
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	16.77	0.96	20.61	<b>46.84</b>	5.45		5.45	<b>12.39</b>	-11.32	-0.96	-15.16	<b>-34.45</b>	
Trim / Thin Trees	2.19		2.19	<b>4.98</b>	0.11		0.11	<b>0.25</b>	-2.08		-2.08	<b>-4.73</b>	
Encroachments	8.18		8.18	<b>18.59</b>	0.57		0.57	<b>1.30</b>	-7.61		-7.61	<b>-17.30</b>	
Animal Control					0.02		0.02	<b>0.05</b>	0.02		0.02	<b>0.05</b>	
Slope Stability					0.03		0.03	<b>0.07</b>	0.03		0.03	<b>0.07</b>	
Erosion / Bank Caving	0.54	0.32	1.82	<b>4.14</b>					-0.54	-0.32	-1.82	<b>-4.14</b>	
Crown Surface / Depressions / Rutting	4.56		4.56	<b>10.36</b>					-4.56		-4.56	<b>-10.36</b>	
Sluice / Slide Gates					0.01		0.01	<b>0.02</b>	0.01		0.01	<b>0.02</b>	
Boat Survey Erosion					0.03	0.04	0.19	<b>0.43</b>	0.03	0.04	0.19	<b>0.43</b>	
<i>LMA Totals:</i>	32.24	1.28	37.36	<b>84.91</b>	6.22	0.04	6.38	<b>14.50</b>	-26.02	-1.24	-30.98	<b>-70.41</b>	

<b>RD1500</b>		Total LMA Miles		<b>54.40</b>									
<b>Reclamation District No. 1500</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
		Overall LMA Rating		<b>M</b>		Overall LMA Rating		<b>M *</b>					
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	0.60		0.60	<b>1.10</b>					-0.60		-0.60	<b>-1.10</b>	
Trim / Thin Trees	0.57		0.57	<b>1.05</b>					-0.57		-0.57	<b>-1.05</b>	
Encroachments	2.91		2.91	<b>5.35</b>	0.03		0.03	<b>0.06</b>	-2.88		-2.88	<b>-5.29</b>	
Animal Control					0.07		0.07	<b>0.13</b>	0.07		0.07	<b>0.13</b>	
Erosion / Bank Caving	0.50	0.68	3.22	<b>5.92</b>	0.05		0.05	<b>0.09</b>	-0.45	-0.68	-3.17	<b>-5.83</b>	
Boat Survey Erosion					0.49	0.47	2.37	<b>4.36</b>	0.49	0.47	2.37	<b>4.36</b>	
<i>LMA Totals:</i>	4.58	0.68	7.30	<b>13.42</b>	0.64	0.47	2.52	<b>4.63*</b>	-3.94	-0.21	-4.78	<b>-8.79</b>	

<b>RD1600</b>		Total LMA Miles		<b>14.70</b>									
<b>Reclamation District No. 1600</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
		Overall LMA Rating		<b>U</b>		Overall LMA Rating		<b>M</b>					
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	3.62		3.62	<b>24.63</b>	0.99		0.99	<b>6.74</b>	-2.63		-2.63	<b>-17.89</b>	
Trim / Thin Trees	2.88		2.88	<b>19.59</b>	0.01		0.01	<b>0.07</b>	-2.87		-2.87	<b>-19.52</b>	
Encroachments	0.11		0.11	<b>0.75</b>	0.08		0.08	<b>0.54</b>	-0.03		-0.03	<b>-0.20</b>	
Animal Control	3.77		3.77	<b>25.65</b>					-3.77		-3.77	<b>-25.65</b>	
Erosion / Bank Caving	0.03		0.03	<b>0.20</b>	0.66		0.66	<b>4.49</b>	0.63		0.63	<b>4.29</b>	
Crown Surface / Depressions / Rutting	0.12		0.12	<b>0.82</b>					-0.12		-0.12	<b>-0.82</b>	
Metal Pipes	0.01		0.01	<b>0.07</b>					-0.01		-0.01	<b>-0.07</b>	
<i>LMA Totals:</i>	10.54	0.00	10.54	<b>71.70</b>	1.74	0.00	1.74	<b>11.84</b>	-8.80	0.00	-8.80	<b>-59.86</b>	

<b>RD1601</b>		Total LMA Miles		<b>2.50</b>									
<b>Reclamation District No. 1601</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
		Overall LMA Rating		<b>A</b>		Overall LMA Rating		<b>A</b>					
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Encroachments	0.02		0.02	<b>0.80</b>					-0.02		-0.02	<b>-0.80</b>	
<i>LMA Totals:</i>	0.02	0.00	0.02	<b>0.80</b>	0.00	0.00	0.00	<b>0.00</b>	-0.02	0.00	-0.02	<b>-0.80</b>	

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<b>RD1660</b>	Total LMA Miles		<b>12.10</b>									
<b>Reclamation District No. 1660</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>A</b>				<b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Trim / Thin Trees	0.02		0.02	<b>0.17</b>					-0.02		-0.02	<b>-0.17</b>
Encroachments	0.01		0.01	<b>0.08</b>	0.01		0.01	<b>0.08</b>	0.00			<b>0.00</b>
Animal Control	0.01		0.01	<b>0.08</b>	0.04		0.04	<b>0.33</b>	<b>0.03</b>		<b>0.03</b>	<b>0.25</b>
Erosion / Bank Caving	0.04		0.04	<b>0.33</b>					-0.04		-0.04	<b>-0.33</b>
<i>LMA Totals:</i>	0.08	0.00	0.08	<b>0.66</b>	0.05	0.00	0.05	<b>0.41</b>	-0.03	0.00	-0.03	<b>-0.25</b>
<b>RD2035</b>	Total LMA Miles		<b>12.10</b>									
<b>Reclamation District No. 2035</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Animal Control	3.96		3.96	<b>32.73</b>					-3.96		-3.96	<b>-32.73</b>
Erosion / Bank Caving	0.73		0.73	<b>6.03</b>					-0.73		-0.73	<b>-6.03</b>
Boat Survey Erosion					0.73		0.73	<b>6.03</b>	<b>0.73</b>		<b>0.73</b>	<b>6.03</b>
<i>LMA Totals:</i>	4.69	0.00	4.69	<b>38.76</b>	0.73	0.00	0.73	<b>6.03</b>	-3.96	0.00	-3.96	<b>-32.73</b>
<b>RD2060</b>	Total LMA Miles		<b>16.00</b>									
<b>Reclamation District No. 2060</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>M</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	1.02		1.02	<b>6.38</b>	2.71		2.71	<b>16.94</b>	<b>1.69</b>		<b>1.69</b>	<b>10.56</b>
Trim / Thin Trees					0.03		0.03	<b>0.19</b>	<b>0.03</b>		<b>0.03</b>	<b>0.19</b>
Encroachments	0.02		0.02	<b>0.13</b>					-0.02		-0.02	<b>-0.13</b>
Erosion / Bank Caving	0.31		0.31	<b>1.94</b>	0.01		0.01	<b>0.06</b>	-0.30		-0.30	<b>-1.88</b>
Crown Surface / Depressions / Rutting	2.37		2.37	<b>14.81</b>					-2.37		-2.37	<b>-14.81</b>
Repair Gates						0.02	0.08	<b>0.50</b>	0.00	<b>0.02</b>	<b>0.08</b>	<b>0.50</b>
<i>LMA Totals:</i>	3.72	0.00	3.72	<b>23.25</b>	2.75	0.02	2.83	<b>17.69</b>	-0.97	<b>0.02</b>	-0.89	<b>-5.56</b>
<b>RD2068</b>	Total LMA Miles		<b>8.73</b>									
<b>Reclamation District No. 2068</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>A</b>				<b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation					0.06		0.06	<b>0.69</b>	<b>0.06</b>		<b>0.06</b>	<b>0.69</b>
Animal Control	0.77		0.77	<b>8.82</b>					-0.77		-0.77	<b>-8.82</b>
<i>LMA Totals:</i>	0.77	0.00	0.77	<b>8.82</b>	0.06	0.00	0.06	<b>0.69</b>	-0.71	0.00	-0.71	<b>-8.13</b>

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<b>RD2098</b>	Total LMA Miles		<b>11.02</b>									
<b>Reclamation District No. 2098</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>M</b>				Overall LMA Rating <b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.52		0.52	<b>4.72</b>	0.66		0.66	<b>5.99</b>	0.14		0.14	<b>1.27</b>
Trim / Thin Trees	0.10		0.10	<b>0.91</b>					-0.10		-0.10	<b>-0.91</b>
Encroachments	0.01		0.01	<b>0.09</b>					-0.01		-0.01	<b>-0.09</b>
Erosion / Bank Caving	0.88		0.88	<b>7.99</b>	0.06		0.06	<b>0.54</b>	-0.82		-0.82	<b>-7.44</b>
<i>LMA Totals:</i>	1.51	0.00	1.51	<b>13.70</b>	0.72	0.00	0.72	<b>6.53</b>	-0.79	0.00	-0.79	<b>-7.17</b>
<b>RD2103</b>	Total LMA Miles		<b>9.80</b>									
<b>Reclamation District No. 2103</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>A</b>				Overall LMA Rating <b>M *</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Trim / Thin Trees	0.38		0.38	<b>3.88</b>					-0.38		-0.38	<b>-3.88</b>
Encroachments	0.12		0.12	<b>1.22</b>		0.01	0.04	<b>0.41</b>	-0.12	0.01	-0.08	<b>-0.82</b>
Animal Control					0.02		0.02	<b>0.20</b>	0.02		0.02	<b>0.20</b>
Crown Surface / Depressions / Rutting					0.74		0.74	<b>7.55</b>	0.74		0.74	<b>7.55</b>
Repair Gates						0.01	0.04	<b>0.41</b>	0.00	0.01	0.04	<b>0.41</b>
<i>LMA Totals:</i>	0.50	0.00	0.50	<b>5.10</b>	0.76	0.02	0.84	<b>8.57*</b>	0.26	0.02	0.34	<b>3.47</b>
<b>RD2104</b>	Total LMA Miles		<b>7.40</b>									
<b>Reclamation District No. 2104</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.42	0.10	0.82	<b>11.08</b>	1.78	7.01	29.82	<b>402.97</b>	1.36	6.91	29.00	<b>391.89</b>
Trim / Thin Trees					0.02	0.05	0.22	<b>2.97</b>	0.02	0.05	0.22	<b>2.97</b>
Encroachments	0.03		0.03	<b>0.41</b>					-0.03		-0.03	<b>-0.41</b>
Erosion / Bank Caving					0.01		0.01	<b>0.14</b>	0.01		0.01	<b>0.14</b>
Crown Surface / Depressions / Rutting	4.11		4.11	<b>55.54</b>					-4.11		-4.11	<b>-55.54</b>
Repair Gates						0.01	0.04	<b>0.54</b>	0.00	0.01	0.04	<b>0.54</b>
<i>LMA Totals:</i>	4.56	0.10	4.96	<b>67.03</b>	1.81	7.07	30.09	<b>406.62</b>	-2.75	6.97	25.13	<b>339.59</b>
<b>ST0001</b>	Total LMA Miles		<b>25.83</b>									
<b>Cache Creek</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>M *</b>				Overall LMA Rating <b>M *</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation					0.02		0.02	<b>0.08</b>	0.02		0.02	<b>0.08</b>
Trim / Thin Trees	0.21		0.21	<b>0.81</b>					-0.21		-0.21	<b>-0.81</b>
Encroachments	0.68		0.68	<b>2.63</b>	0.11		0.11	<b>0.43</b>	-0.57		-0.57	<b>-2.21</b>
Erosion / Bank Caving		0.28	1.12	<b>4.34</b>					0.00	-0.28	-1.12	<b>-4.34</b>
Boat Survey Erosion					0.28	1.12	4.34	<b>4.34</b>	0.00	0.28	1.12	<b>4.34</b>
<i>LMA Totals:</i>	0.89	0.28	2.01	<b>7.78*</b>	0.13	0.28	1.25	<b>4.84*</b>	-0.76	0.00	-0.76	<b>-2.94</b>

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ST0002		Total LMA Miles		22.37									
East Levee Sutter Bypass		Fall 2007				Fall 2008				Change			
		Overall LMA Rating				Overall LMA Rating							
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Animal Control						0.07		0.07	0.31	0.07		0.07	0.31
Erosion / Bank Caving			0.02	0.08	0.36					0.00	-0.02	-0.08	-0.36
LMA Totals:		0.00	0.02	0.08	0.36*	0.07	0.00	0.07	0.31	0.07	-0.02	-0.01	-0.04

ST0003		Total LMA Miles		27.30									
East Levee Sacramento River		Fall 2007				Fall 2008				Change			
		Overall LMA Rating				Overall LMA Rating							
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation		0.04		0.04	0.15	0.55		0.55	2.02	0.51		0.51	1.87
Trim / Thin Trees		1.38		1.38	5.06	0.44		0.44	1.61	-0.94		-0.94	-3.44
Encroachments		0.14		0.14	0.51	0.26		0.26	0.95	0.12		0.12	0.44
Animal Control		0.14		0.14	0.51	1.30		1.30	4.76	1.16		1.16	4.25
Slope Stability						0.02		0.02	0.07	0.02		0.02	0.07
Erosion / Bank Caving		0.04		0.04	0.15					-0.04		-0.04	-0.15
LMA Totals:		1.74	0.00	1.74	6.37	2.57	0.00	2.57	9.41	0.83	0.00	0.83	3.04

ST0004		Total LMA Miles		2.00									
East Levee Yolo Bypass		Fall 2007				Fall 2008				Change			
		Overall LMA Rating				Overall LMA Rating							
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation		0.58		0.58	29.00					-0.58		-0.58	-29.00
Trim / Thin Trees		0.18		0.18	9.00					-0.18		-0.18	-9.00
LMA Totals:		0.76	0.00	0.76	38.00	0.00	0.00	0.00	0.00	-0.76	0.00	-0.76	-38.00

ST0005		Total LMA Miles		1.20									
Hamilton Bend		Fall 2007				Fall 2008				Change			
		Overall LMA Rating				Overall LMA Rating							
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation		6.21		6.21	517.50					-6.21		-6.21	-517.50
Trim / Thin Trees		6.76		6.76	563.33					-6.76		-6.76	-563.33
Crown Surface / Depressions / Rutting		3.38		3.38	281.67	1.05		1.05	87.50	-2.33		-2.33	-194.17
LMA Totals:		16.35	0.00	16.35	1,362.50	1.05	0.00	1.05	87.50	-15.30	0.00	-15.30	1,275.00

ST0006		Total LMA Miles		0.50									
Nelson Bend		Fall 2007				Fall 2008				Change			
		Overall LMA Rating				Overall LMA Rating							
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation		0.08	1.00	4.08	816.00	1.10		1.10	220.00	1.02	-1.00	-2.98	-596.00
Trim / Thin Trees		0.66		0.66	132.00	0.44		0.44	88.00	-0.22		-0.22	-44.00
LMA Totals:		0.74	1.00	4.74	948.00	1.54	0.00	1.54	308.00	0.80	-1.00	-3.20	-640.00

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

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**Overall LMA Ratings, Compare 2008 & 2007**

**Sacramento River Basin (cont.)**

<b>ST0007</b>	Total LMA Miles		<b>16.29</b>									
<b>Putah Creek</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>M</b>				<b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.17		0.17	<b>1.04</b>					-0.17		-0.17	<b>-1.04</b>
Trim / Thin Trees	0.68		0.68	<b>4.17</b>	0.23		0.23	<b>1.41</b>	-0.45		-0.45	<b>-2.76</b>
Encroachments	0.79		0.79	<b>4.85</b>	0.05		0.05	<b>0.31</b>	-0.74		-0.74	<b>-4.54</b>
Animal Control					0.12		0.12	<b>0.74</b>	<b>0.12</b>		<b>0.12</b>	<b>0.74</b>
<i>LMA Totals:</i>	1.64	0.00	1.64	<b>10.07</b>	0.40	0.00	0.40	<b>2.46</b>	-1.24	0.00	-1.24	<b>-7.61</b>

<b>ST0008</b>	Total LMA Miles		<b>3.56</b>									
<b>Sacramento Bypass</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>A</b>				<b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Encroachments	0.03		0.03	<b>0.84</b>	0.01		0.01	<b>0.28</b>	-0.02		-0.02	<b>-0.56</b>
<i>LMA Totals:</i>	0.03	0.00	0.03	<b>0.84</b>	0.01	0.00	0.01	<b>0.28</b>	-0.02	0.00	-0.02	<b>-0.56</b>

<b>ST0009</b>	Total LMA Miles		<b>9.00</b>									
<b>Tisdale Bypass</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>A</b>				<b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.01		0.01	<b>0.11</b>					-0.01		-0.01	<b>-0.11</b>
Encroachments					0.01		0.01	<b>0.11</b>	<b>0.01</b>		<b>0.01</b>	<b>0.11</b>
<i>LMA Totals:</i>	0.01	0.00	0.01	<b>0.11</b>	0.01	0.00	0.01	<b>0.11</b>	0.00	0.00	0.00	<b>0.00</b>

<b>ST0010</b>	Total LMA Miles		<b>9.32</b>									
<b>Wadsworth Canal</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>A</b>				<b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Encroachments					0.01		0.01	<b>0.11</b>	<b>0.01</b>		<b>0.01</b>	<b>0.11</b>
Animal Control					0.15		0.15	<b>1.61</b>	<b>0.15</b>		<b>0.15</b>	<b>1.61</b>
Erosion / Bank Caving	0.06		0.06	<b>0.64</b>					-0.06		-0.06	<b>-0.64</b>
<i>LMA Totals:</i>	0.06	0.00	0.06	<b>0.64</b>	0.16	0.00	0.16	<b>1.72</b>	<b>0.10</b>	0.00	<b>0.10</b>	<b>1.07</b>

<b>ST0011</b>	Total LMA Miles		<b>9.35</b>									
<b>West Levee Yolo Bypass</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
	<b>U</b>				<b>M *</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Trim / Thin Trees	1.62		1.62	<b>17.33</b>					-1.62		-1.62	<b>-17.33</b>
Encroachments	0.01		0.01	<b>0.11</b>					-0.01		-0.01	<b>-0.11</b>
Animal Control					0.01		0.01	<b>0.11</b>	<b>0.01</b>		<b>0.01</b>	<b>0.11</b>
Erosion / Bank Caving	0.15	0.05	0.35	<b>3.74</b>					-0.15	-0.05	-0.35	<b>-3.74</b>
Boat Survey Erosion					0.15	0.03	0.27	<b>2.89</b>	<b>0.15</b>	<b>0.03</b>	<b>0.27</b>	<b>2.89</b>
<i>LMA Totals:</i>	1.78	0.05	1.98	<b>21.18</b>	0.16	0.03	0.28	<b>2.99*</b>	-1.62	-0.02	-1.70	<b>-18.18</b>

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

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**Overall LMA Ratings, Compare 2008 & 2007**

**Sacramento River Basin (cont.)**

<b>ST0012</b>	Total LMA Miles		<b>12.46</b>										
<b>Willow Slough Bypass</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>				
	Overall LMA Rating				Overall LMA Rating								
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Animal Control					0.21		0.21	<b>1.69</b>	0.21		0.21	<b>1.69</b>	
Erosion / Bank Caving	0.54		0.54	<b>4.33</b>					-0.54		-0.54	<b>-4.33</b>	
Boat Survey Erosion					0.54		0.54	<b>4.33</b>	0.54		0.54	<b>4.33</b>	
<i>LMA Totals:</i>	0.54	0.00	0.54	<b>4.33</b>	0.75	0.00	0.75	<b>6.02</b>	0.21	0.00	0.21	<b>1.69</b>	

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**Overall LMA Ratings, Compare 2008 & 2007**

**San Joaquin River Basin**

<b>NA0010</b>		Total LMA Miles		<b>191.40</b>													
<b>Lower San Joaquin Levee District</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>							
		Overall LMA Rating		<b>M</b>		Overall LMA Rating		<b>M *</b>									
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %					
Vegetation	21.94		21.94	<b>11.46</b>	9.86		9.86	<b>5.15</b>	-12.08		-12.08	<b>-6.31</b>					
Trim / Thin Trees	0.18		0.18	<b>0.09</b>	0.03		0.03	<b>0.02</b>	-0.15		-0.15	<b>-0.08</b>					
Encroachments	1.72		1.72	<b>0.90</b>		0.01	0.04	<b>0.02</b>	-1.72	<b>0.01</b>	-1.68	<b>-0.88</b>					
Animal Control	0.85		0.85	<b>0.44</b>	0.70		0.70	<b>0.37</b>	-0.15		-0.15	<b>-0.08</b>					
Slope Stability	1.61		1.61	<b>0.84</b>					-1.61		-1.61	<b>-0.84</b>					
Erosion / Bank Caving	0.08	0.01	0.12	<b>0.06</b>					-0.08	-0.01	-0.12	<b>-0.06</b>					
Crown Surface / Depressions / Rutting	0.54		0.54	<b>0.28</b>					-0.54		-0.54	<b>-0.28</b>					
Rip Rap Revetments	0.13		0.13	<b>0.07</b>					-0.13		-0.13	<b>-0.07</b>					
Vegetation & Obstructions	0.13	0.02	0.21	<b>0.11</b>	0.06		0.06	<b>0.03</b>	-0.07	-0.02	-0.15	<b>-0.08</b>					
Erosion Areas	0.01		0.01	<b>0.01</b>					-0.01		-0.01	<b>-0.01</b>					
Flap Gates	0.01		0.01	<b>0.01</b>					-0.01		-0.01	<b>-0.01</b>					
Concrete Surfaces	0.01		0.01	<b>0.01</b>					-0.01		-0.01	<b>-0.01</b>					
Boat Survey Erosion						0.06	0.24	<b>0.13</b>	0.00	<b>0.06</b>	<b>0.24</b>	<b>0.13</b>					
<i>LMA Totals:</i>	27.21	0.03	27.33	<b>14.28</b>	10.65	0.07	10.93	<b>5.71*</b>	-16.56	<b>0.04</b>	-16.40	<b>-8.57</b>					

<b>NA0011</b>		Total LMA Miles		<b>26.70</b>													
<b>Madera County FCWCA</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>							
		Overall LMA Rating		<b>U</b>		Overall LMA Rating		<b>U</b>									
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %					
Vegetation	24.56		24.56	<b>91.99</b>	26.16	2.33	35.48	<b>132.88</b>	<b>1.60</b>	<b>2.33</b>	<b>10.92</b>	<b>40.90</b>					
Trim / Thin Trees	1.02		1.02	<b>3.82</b>	0.18	0.05	0.38	<b>1.42</b>	-0.84	<b>0.05</b>	-0.64	<b>-2.40</b>					
Encroachments	0.72	0.08	1.04	<b>3.90</b>	0.21	0.94	3.97	<b>14.87</b>	-0.51	<b>0.86</b>	<b>2.93</b>	<b>10.97</b>					
Animal Control	8.85	6.07	33.13	<b>124.08</b>	7.69	1.34	13.05	<b>48.88</b>	-1.16	-4.73	-20.08	<b>-75.21</b>					
Erosion / Bank Caving	0.10		0.10	<b>0.38</b>	0.02	0.04	0.18	<b>0.67</b>	-0.08	<b>0.04</b>	<b>0.08</b>	<b>0.30</b>					
Crown Surface / Depressions / Rutting	21.41	0.01	21.45	<b>80.34</b>		0.01	0.04	<b>0.15</b>	-21.41		-21.41	<b>-80.19</b>					
Boat Survey Erosion					0.10		0.10	<b>0.38</b>	<b>0.10</b>		<b>0.10</b>	<b>0.38</b>					
<i>LMA Totals:</i>	56.66	6.16	81.30	<b>304.49</b>	34.36	4.71	53.20	<b>199.25</b>	-22.30	-1.45	-28.10	<b>-105.24</b>					

<b>NA0013</b>		Total LMA Miles		<b>6.30</b>													
<b>Merced County Stream Group</b>		<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>							
		Overall LMA Rating		<b>U</b>		Overall LMA Rating		<b>U</b>									
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %					
Vegetation	0.34		0.34	<b>5.40</b>					-0.34		-0.34	<b>-5.40</b>					
Animal Control	0.85		0.85	<b>13.49</b>	1.10	2.33	10.42	<b>165.40</b>	<b>0.25</b>	<b>2.33</b>	<b>9.57</b>	<b>151.90</b>					
Slope Stability	0.64		0.64	<b>10.16</b>					-0.64		-0.64	<b>-10.16</b>					
Erosion / Bank Caving	0.04	0.14	0.60	<b>9.52</b>					-0.04	-0.14	-0.60	<b>-9.52</b>					
Crown Surface / Depressions / Rutting					0.10		0.10	<b>1.59</b>	<b>0.10</b>		<b>0.10</b>	<b>1.59</b>					
Boat Survey Erosion					0.02	0.01	0.06	<b>0.95</b>	<b>0.02</b>	<b>0.01</b>	<b>0.06</b>	<b>0.95</b>					
<i>LMA Totals:</i>	1.87	0.14	2.43	<b>38.57</b>	1.22	2.34	10.58	<b>167.94</b>	-0.65	<b>2.20</b>	<b>8.15</b>	<b>129.37</b>					

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**San Joaquin River Basin (cont.)**

NA0017		Total LMA Miles		104.50									
San Joaquin County Flood Control District		Fall 2007				Fall 2008				Change			
		Overall LMA Rating				Overall LMA Rating							
		U				M *							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	2.61	0.01	2.65	2.54	2.52		2.52	2.41	-0.09	-0.01	-0.13	-0.12	
Trim / Thin Trees	6.60		6.60	6.32	0.60		0.60	0.57	-6.00		-6.00	-5.74	
Encroachments	3.33	0.31	4.57	4.37	1.59	0.25	2.59	2.48	-1.74	-0.06	-1.98	-1.89	
Animal Control					0.29		0.29	0.28	0.29		0.29	0.28	
Slope Stability					0.03		0.03	0.03	0.03		0.03	0.03	
Erosion / Bank Caving	0.07	1.07	4.35	4.16	0.05		0.05	0.05	-0.02	-1.07	-4.30	-4.11	
Crown Surface / Depressions / Rutting	10.58	0.07	10.86	10.39	0.81		0.81	0.78	-9.77	-0.07	-10.05	-9.62	
Repair Gates		0.03	0.12	0.11					0.00	-0.03	-0.12	-0.11	
Erosion Areas	0.01		0.01	0.01					-0.01		-0.01	-0.01	
Flap Gates						0.01	0.04	0.04	0.00	0.01	0.04	0.04	
Boat Survey Erosion					0.06	0.81	3.30	3.16	0.06	0.81	3.30	3.16	
<i>LMA Totals:</i>	23.20	1.49	29.16	27.90	5.95	1.07	10.23	9.79*	-17.25	-0.42	-18.93	-18.11	

RD0001		Total LMA Miles		1.20									
Reclamation District No. 0001		Fall 2007				Fall 2008				Change			
		Overall LMA Rating				Overall LMA Rating							
		M				A							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	0.14		0.14	11.67					-0.14		-0.14	-11.67	
Trim / Thin Trees	0.03		0.03	2.50					-0.03		-0.03	-2.50	
Erosion / Bank Caving	0.01		0.01	0.83					-0.01		-0.01	-0.83	
Boat Survey Erosion					0.01		0.01	0.83	0.01		0.01	0.83	
<i>LMA Totals:</i>	0.18	0.00	0.18	15.00	0.01	0.00	0.01	0.83	-0.17	0.00	-0.17	-14.17	

RD0017		Total LMA Miles		16.20									
Reclamation District No. 0017		Fall 2007				Fall 2008				Change			
		Overall LMA Rating				Overall LMA Rating							
		U				U							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	16.18	16.34	81.54	503.33	0.45	0.02	0.53	3.27	-15.73	-16.32	-81.01	-500.06	
Trim / Thin Trees	0.36		0.36	2.22	0.54	0.25	1.54	9.51	0.18	0.25	1.18	7.28	
Encroachments	0.08		0.08	0.49	0.10		0.10	0.62	0.02		0.02	0.12	
Animal Control	14.37		14.37	88.70	1.86	0.04	2.02	12.47	-12.51	0.04	-12.35	-76.23	
Slope Stability					0.01		0.01	0.06	0.01		0.01	0.06	
Erosion / Bank Caving		0.04	0.16	0.99					0.00	-0.04	-0.16	-0.99	
Repair Gates					0.02		0.02	0.12	0.02		0.02	0.12	
<i>LMA Totals:</i>	30.99	16.38	96.51	595.74	2.98	0.31	4.22	26.05	-28.01	-16.07	-92.29	-569.69	

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

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**San Joaquin River Basin (cont.)**

RD0404 Reclamation District No. 0404	Total LMA Miles		4.10									
	Fall 2007				Fall 2008				Change			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.02		0.02	0.49	0.33		0.33	8.05	0.31		0.31	7.56
Trim / Thin Trees	0.07	0.03	0.19	4.63					-0.07	-0.03	-0.19	-4.63
Encroachments	0.03		0.03	0.73	0.03		0.03	0.73	0.00			0.00
Animal Control	1.89		1.89	46.10	0.40		0.40	9.76	-1.49		-1.49	-36.34
Slope Stability					0.05		0.05	1.22	0.05		0.05	1.22
Erosion / Bank Caving	0.04	0.36	1.48	36.10	0.03		0.03	0.73	-0.01	-0.36	-1.45	-35.37
Crown Surface / Depressions / Rutting					0.38		0.38	9.27	0.38		0.38	9.27
Flap Gates	0.01		0.01	0.24	0.01		0.01	0.24	0.00			0.00
Boat Survey Erosion					0.09	0.29	1.25	30.49	0.09	0.29	1.25	30.49
<b>LMA Totals:</b>	<b>2.06</b>	<b>0.39</b>	<b>3.62</b>	<b>88.29</b>	<b>1.32</b>	<b>0.29</b>	<b>2.48</b>	<b>60.49</b>	<b>-0.74</b>	<b>-0.10</b>	<b>-1.14</b>	<b>-27.80</b>

RD0524 Reclamation District No. 0524	Total LMA Miles		6.30									
	Fall 2007				Fall 2008				Change			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.65	0.19	1.41	22.38	0.07	0.08	0.39	6.19	-0.58	-0.11	-1.02	-16.19
Trim / Thin Trees	1.13		1.13	17.94	0.58		0.58	9.21	-0.55		-0.55	-8.73
Encroachments	0.09	0.14	0.65	10.32	0.44	0.01	0.48	7.62	0.35	-0.13	-0.17	-2.70
Animal Control	1.04		1.04	16.51	0.63		0.63	10.00	-0.41		-0.41	-6.51
Slope Stability	0.26		0.26	4.13	0.16		0.16	2.54	-0.10		-0.10	-1.59
Erosion / Bank Caving	0.22	0.01	0.26	4.13	0.25	0.01	0.29	4.60	0.03		0.03	0.48
Crown Surface / Depressions / Rutting					0.02	0.05	0.22	3.49	0.02	0.05	0.22	3.49
Metal Pipes	0.01		0.01	0.16					-0.01		-0.01	-0.16
Boat Survey Erosion					0.02		0.02	0.32	0.02		0.02	0.32
<b>LMA Totals:</b>	<b>3.40</b>	<b>0.34</b>	<b>4.76</b>	<b>75.56</b>	<b>2.17</b>	<b>0.15</b>	<b>2.77</b>	<b>43.97</b>	<b>-1.23</b>	<b>-0.19</b>	<b>-1.99</b>	<b>-31.59</b>

RD0544 Reclamation District No. 0544	Total LMA Miles		10.30									
	Fall 2007				Fall 2008				Change			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	3.02	0.01	3.06	29.71	7.10	0.45	8.90	86.41	4.08	0.44	5.84	56.70
Trim / Thin Trees	0.69		0.69	6.70	0.83		0.83	8.06	0.14		0.14	1.36
Encroachments	0.56	0.24	1.52	14.76	0.52		0.52	5.05	-0.04	-0.24	-1.00	-9.71
Animal Control	1.36		1.36	13.20	0.36		0.36	3.50	-1.00		-1.00	-9.71
Slope Stability	0.02		0.02	0.19	0.05		0.05	0.49	0.03		0.03	0.29
Erosion / Bank Caving	0.12		0.12	1.17	0.01		0.01	0.10	-0.11		-0.11	-1.07
Crown Surface / Depressions / Rutting					0.06		0.06	0.58	0.06		0.06	0.58
Erosion Areas	0.01		0.01	0.10					-0.01		-0.01	-0.10
Boat Survey Erosion						0.04	0.16	1.55	0.00	0.04	0.16	1.55
<b>LMA Totals:</b>	<b>5.78</b>	<b>0.25</b>	<b>6.78</b>	<b>65.83</b>	<b>8.93</b>	<b>0.49</b>	<b>10.89</b>	<b>105.73</b>	<b>3.15</b>	<b>0.24</b>	<b>4.11</b>	<b>39.90</b>

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

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<b>RD1602</b>	Total LMA Miles		<b>6.30</b>									
<b>Reclamation District No. 1602</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.18		0.18	<b>2.86</b>	3.89		3.89	<b>61.75</b>	<b>3.71</b>		<b>3.71</b>	<b>58.89</b>
Trim / Thin Trees					0.15		0.15	<b>2.38</b>	<b>0.15</b>		<b>0.15</b>	<b>2.38</b>
Encroachments	0.22		0.22	<b>3.49</b>	0.04		0.04	<b>0.64</b>	<b>-0.18</b>		<b>-0.18</b>	<b>-2.86</b>
Animal Control	5.02		5.02	<b>79.68</b>	1.47		1.47	<b>23.33</b>	<b>-3.55</b>		<b>-3.55</b>	<b>-56.35</b>
Slope Stability					0.01		0.01	<b>0.16</b>	<b>0.01</b>		<b>0.01</b>	<b>0.16</b>
Erosion / Bank Caving		0.01	0.04	<b>0.63</b>					0.00	<b>-0.01</b>	<b>-0.04</b>	<b>-0.63</b>
Crown Surface / Depressions / Rutting	1.57		1.57	<b>24.92</b>	0.47		0.47	<b>7.46</b>	<b>-1.10</b>		<b>-1.10</b>	<b>-17.46</b>
Encroachments					0.01		0.01	<b>0.16</b>	<b>0.01</b>		<b>0.01</b>	<b>0.16</b>
<i>LMA Totals:</i>	6.99	0.01	7.03	<b>111.59</b>	6.04	0.00	6.04	<b>95.87</b>	<b>-0.95</b>	<b>-0.01</b>	<b>-0.99</b>	<b>-15.71</b>
<b>RD2031</b>	Total LMA Miles		<b>13.20</b>									
<b>Reclamation District No. 2031</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>M *</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	3.78		3.78	<b>28.64</b>	0.11		0.11	<b>0.83</b>	<b>-3.67</b>		<b>-3.67</b>	<b>-27.80</b>
Trim / Thin Trees	2.69		2.69	<b>20.38</b>	0.22		0.22	<b>1.67</b>	<b>-2.47</b>		<b>-2.47</b>	<b>-18.71</b>
Encroachments	0.27	0.90	3.87	<b>29.32</b>	0.01		0.01	<b>0.08</b>	<b>-0.26</b>	<b>-0.90</b>	<b>-3.86</b>	<b>-29.24</b>
Slope Stability		0.90	3.60	<b>27.27</b>					0.00	<b>-0.90</b>	<b>-3.60</b>	<b>-27.27</b>
Erosion / Bank Caving		0.09	0.36	<b>2.73</b>					0.00	<b>-0.09</b>	<b>-0.36</b>	<b>-2.73</b>
Crown Surface / Depressions / Rutting	2.42		2.42	<b>18.33</b>		0.09	0.36	<b>2.73</b>	<b>-2.42</b>	<b>0.09</b>	<b>-2.06</b>	<b>-15.61</b>
Boat Survey Erosion						0.10	0.40	<b>3.03</b>	0.00	<b>0.10</b>	<b>0.40</b>	<b>3.03</b>
<i>LMA Totals:</i>	9.16	1.89	16.72	<b>126.67</b>	0.34	0.19	1.10	<b>8.33*</b>	<b>-8.82</b>	<b>-1.70</b>	<b>-15.62</b>	<b>-118.33</b>
<b>RD2058</b>	Total LMA Miles		<b>6.70</b>									
<b>Reclamation District No. 2058</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	6.71	0.58	9.03	<b>134.78</b>	0.58	0.05	0.78	<b>11.64</b>	<b>-6.13</b>	<b>-0.53</b>	<b>-8.25</b>	<b>-123.13</b>
Trim / Thin Trees	0.37		0.37	<b>5.52</b>	0.18	0.21	1.02	<b>15.22</b>	<b>-0.19</b>	<b>0.21</b>	<b>0.65</b>	<b>9.70</b>
Encroachments	10.91		10.91	<b>162.84</b>	0.03		0.03	<b>0.45</b>	<b>-10.88</b>		<b>-10.88</b>	<b>-162.39</b>
Animal Control	13.30		13.30	<b>198.51</b>					<b>-13.30</b>		<b>-13.30</b>	<b>-198.51</b>
Slope Stability					0.01		0.01	<b>0.15</b>	<b>0.01</b>		<b>0.01</b>	<b>0.15</b>
Erosion / Bank Caving		0.08	0.32	<b>4.78</b>					0.00	<b>-0.08</b>	<b>-0.32</b>	<b>-4.78</b>
Boat Survey Erosion						0.04	0.16	<b>2.39</b>	0.00	<b>0.04</b>	<b>0.16</b>	<b>2.39</b>
<i>LMA Totals:</i>	31.29	0.66	33.93	<b>506.42</b>	0.80	0.30	2.00	<b>29.85</b>	<b>-30.49</b>	<b>-0.36</b>	<b>-31.93</b>	<b>-476.57</b>

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RD2062 Reclamation District No. 2062		Total LMA Miles		12.30		Fall 2007				Fall 2008				Change			
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
		Overall LMA Rating				U				Overall LMA Rating				M *			
Vegetation		0.01		0.01	0.08	0.05		0.05	0.41	0.04		0.04	0.33				
Encroachments		5.95		5.95	48.37					-5.95		-5.95	-48.37				
Erosion / Bank Caving		0.05	0.08	0.37	3.01					-0.05	-0.08	-0.37	-3.01				
Boat Survey Erosion						0.03	0.12	0.51	4.15	0.03	0.12	0.51	4.15				
LMA Totals:		6.01	0.08	6.33	51.46	0.08	0.12	0.56	4.55*	-5.93	0.04	-5.77	-46.91				

RD2063 Reclamation District No. 2063		Total LMA Miles		10.60		Fall 2007				Fall 2008				Change			
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
		Overall LMA Rating				U				Overall LMA Rating				U			
Vegetation		24.47	0.61	26.91	253.87	6.59		6.59	62.17	-17.88	-0.61	-20.32	-191.70				
Trim / Thin Trees		0.99		0.99	9.34	0.03		0.03	0.28	-0.96		-0.96	-9.06				
Encroachments		0.52		0.52	4.91	0.02	0.01	0.06	0.57	-0.50	0.01	-0.46	-4.34				
Animal Control		0.17		0.17	1.60					-0.17		-0.17	-1.60				
Slope Stability						0.01		0.01	0.09	0.01		0.01	0.09				
Erosion / Bank Caving		0.96		0.96	9.06					-0.96		-0.96	-9.06				
Crown Surface / Depressions / Rutting		0.58		0.58	5.47	0.34		0.34	3.21	-0.24		-0.24	-2.26				
Flap Gates						0.02		0.02	0.19	0.02		0.02	0.19				
Sluice / Slide Gates							0.01	0.04	0.38	0.00	0.01	0.04	0.38				
Boat Survey Erosion						0.01		0.01	0.09	0.01		0.01	0.09				
LMA Totals:		27.69	0.61	30.13	284.25	7.02	0.02	7.10	66.98	-20.67	-0.59	-23.03	-217.26				

RD2064 Reclamation District No. 2064		Total LMA Miles		11.90		Fall 2007				Fall 2008				Change			
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
		Overall LMA Rating				U				Overall LMA Rating				M			
Vegetation		14.45		14.45	121.43					-14.45		-14.45	-121.43				
Trim / Thin Trees		2.89		2.89	24.29					-2.89		-2.89	-24.29				
Encroachments		0.09		0.09	0.76					-0.09		-0.09	-0.76				
Animal Control		5.82		5.82	48.91	1.30		1.30	10.92	-4.52		-4.52	-37.98				
Erosion / Bank Caving						0.01		0.01	0.08	0.01		0.01	0.08				
Crown Surface / Depressions / Rutting		3.00		3.00	25.21					-3.00		-3.00	-25.21				
LMA Totals:		26.25	0.00	26.25	220.59	1.31	0.00	1.31	11.01	-24.94	0.00	-24.94	-209.58				

RD2075 Reclamation District No. 2075		Total LMA Miles		7.50		Fall 2007				Fall 2008				Change			
Rated Item		M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
		Overall LMA Rating				U				Overall LMA Rating				U			
Vegetation		3.77		3.77	50.27	3.71		3.71	49.47	-0.06		-0.06	-0.80				
Trim / Thin Trees		0.23		0.23	3.07	0.05		0.05	0.67	-0.18		-0.18	-2.40				
Encroachments		0.09	0.19	0.85	11.33	0.38	0.01	0.42	5.60	0.29	-0.18	-0.43	-5.73				
Erosion / Bank Caving			0.02	0.08	1.07					0.00	-0.02	-0.08	-1.07				
Boat Survey Erosion							0.03	0.12	1.60	0.00	0.03	0.12	1.60				
LMA Totals:		4.09	0.21	4.93	65.73	4.14	0.04	4.30	57.33	0.05	-0.17	-0.63	-8.40				

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RD2085 Reclamation District No. 2085	Total LMA Miles		6.20										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating				Overall LMA Rating								
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	10.41		10.41	167.90	0.79		0.79	12.74	-9.62		-9.62	-155.16	
Trim / Thin Trees	0.01		0.01	0.16	1.47		1.47	23.71	1.46		1.46	23.55	
Encroachments	2.71		2.71	43.71	0.02		0.02	0.32	-2.69		-2.69	-43.39	
Erosion / Bank Caving	0.01		0.01	0.16	0.01		0.01	0.16	0.00			0.00	
Crown Surface / Depressions / Rutting	0.85		0.85	13.71	0.05		0.05	0.81	-0.80		-0.80	-12.90	
Underseepage Relief Wells						0.02	0.08	1.29	0.00	0.02	0.08	1.29	
Repair Gates	0.01		0.01	0.16					-0.01		-0.01	-0.16	
LMA Totals:	14.00	0.00	14.00	225.81	2.34	0.02	2.42	39.03	-11.66	0.02	-11.58	-186.77	

RD2089 Reclamation District No. 2089	Total LMA Miles		2.90										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating				Overall LMA Rating								
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation	1.21		1.21	41.72	0.26	2.08	8.58	295.86	-0.95	2.08	7.37	254.14	
Trim / Thin Trees	0.81		0.81	27.93	0.85	0.12	1.33	45.86	0.04	0.12	0.52	17.93	
Encroachments	0.02		0.02	0.69					-0.02		-0.02	-0.69	
Animal Control					0.03	0.01	0.07	2.41	0.03	0.01	0.07	2.41	
Erosion / Bank Caving	0.03	0.03	0.15	5.17					-0.03	-0.03	-0.15	-5.17	
Crown Surface / Depressions / Rutting					0.76		0.76	26.21	0.76		0.76	26.21	
Boat Survey Erosion					0.04	0.03	0.16	5.52	0.04	0.03	0.16	5.52	
LMA Totals:	2.07	0.03	2.19	75.52	1.94	2.24	10.90	375.86	-0.13	2.21	8.71	300.34	

RD2091 Reclamation District No. 2091	Total LMA Miles		7.92										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating				Overall LMA Rating								
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation					0.62		0.62	7.83	0.62		0.62	7.83	
Trim / Thin Trees					0.16		0.16	2.02	0.16		0.16	2.02	
Encroachments	0.01		0.01	0.13					-0.01		-0.01	-0.13	
LMA Totals:	0.01	0.00	0.01	0.13	0.78	0.00	0.78	9.85	0.77	0.00	0.77	9.72	

RD2092 Reclamation District No. 2092	Total LMA Miles		3.80										
	Fall 2007				Fall 2008				Change				
	Overall LMA Rating				Overall LMA Rating								
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	
Vegetation					0.07		0.07	1.84	0.07		0.07	1.84	
Encroachments					0.01		0.01	0.26	0.01		0.01	0.26	
Slope Stability					0.01		0.01	0.26	0.01		0.01	0.26	
Erosion / Bank Caving	0.14		0.14	3.68					-0.14		-0.14	-3.68	
Boat Survey Erosion					0.14		0.14	3.68	0.14		0.14	3.68	
LMA Totals:	0.14	0.00	0.14	3.68	0.23	0.00	0.23	6.05	0.09	0.00	0.09	2.37	

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<b>RD2094</b>	Total LMA Miles		<b>3.30</b>									
<b>Reclamation District No. 2094</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Encroachments	5.41		5.41	<b>163.94</b>					-5.41		-5.41	<b>-163.94</b>
Animal Control					0.19		0.19	<b>5.76</b>	0.19		0.19	<b>5.76</b>
Erosion / Bank Caving					0.01		0.01	<b>0.30</b>	0.01		0.01	<b>0.30</b>
<i>LMA Totals:</i>	5.41	0.00	5.41	<b>163.94</b>	0.20	0.00	0.20	<b>6.06</b>	-5.21	0.00	-5.21	<b>-157.88</b>

<b>RD2095</b>	Total LMA Miles		<b>4.90</b>									
<b>Reclamation District No. 2095</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	3.61		3.61	<b>73.67</b>	1.82		1.82	<b>37.14</b>	-1.79		-1.79	<b>-36.53</b>
Trim / Thin Trees					0.72		0.72	<b>14.69</b>	0.72		0.72	<b>14.69</b>
Encroachments	1.45		1.45	<b>29.59</b>	0.02		0.02	<b>0.41</b>	-1.43		-1.43	<b>-29.18</b>
Erosion / Bank Caving	0.03	0.03	0.15	<b>3.06</b>	0.81		0.81	<b>16.53</b>	0.78	-0.03	0.66	<b>13.47</b>
Boat Survey Erosion					0.01	0.06	0.25	<b>5.10</b>	0.01	0.06	0.25	<b>5.10</b>
<i>LMA Totals:</i>	5.09	0.03	5.21	<b>106.33</b>	3.38	0.06	3.62	<b>73.88</b>	-1.71	0.03	-1.59	<b>-32.45</b>

<b>RD2096</b>	Total LMA Miles		<b>0.20</b>									
<b>Reclamation District No. 2096</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation					0.01		0.01	<b>5.00</b>	0.01		0.01	<b>5.00</b>
Animal Control					0.01		0.01	<b>5.00</b>	0.01		0.01	<b>5.00</b>
<i>LMA Totals:</i>	0.00	0.00	0.00	<b>0.00</b>	0.02	0.00	0.02	<b>10.00</b>	0.02	0.00	0.02	<b>10.00</b>

<b>RD2101</b>	Total LMA Miles		<b>3.50</b>									
<b>Reclamation District No. 2101</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	2.38		2.38	<b>68.00</b>	2.75		2.75	<b>78.57</b>	0.37		0.37	<b>10.57</b>
Trim / Thin Trees	0.85		0.85	<b>24.29</b>	1.88		1.88	<b>53.71</b>	1.03		1.03	<b>29.43</b>
Animal Control	0.24		0.24	<b>6.86</b>	0.14		0.14	<b>4.00</b>	-0.10		-0.10	<b>-2.86</b>
Erosion / Bank Caving		0.09	0.36	<b>10.29</b>		0.02	0.08	<b>2.29</b>	0.00	-0.07	-0.28	<b>-8.00</b>
Crown Surface / Depressions / Rutting	1.62		1.62	<b>46.29</b>	0.20		0.20	<b>5.71</b>	-1.42		-1.42	<b>-40.57</b>
Boat Survey Erosion					0.10	0.40	1.43	<b>11.43</b>	0.00	0.10	0.40	<b>11.43</b>
<i>LMA Totals:</i>	5.09	0.09	5.45	<b>155.71</b>	4.97	0.12	5.45	<b>155.71</b>	-0.12	0.03	0.00	<b>0.00</b>

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2008 Levee Maintenance Deficiency Summary Report**

**Overall LMA Ratings, Compare 2008 & 2007**

**San Joaquin River Basin (cont.)**

<b>RD2107</b>	Total LMA Miles		<b>4.20</b>									
<b>Reclamation District No. 2107</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating				Overall LMA Rating							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation					0.22		0.22	<b>5.24</b>	<b>0.22</b>		<b>0.22</b>	<b>5.24</b>
Trim / Thin Trees	0.01		0.01	<b>0.24</b>	0.05		0.05	<b>1.19</b>	<b>0.04</b>		<b>0.04</b>	<b>0.95</b>
Encroachments	0.83		0.83	<b>19.76</b>	0.01		0.01	<b>0.24</b>	<b>-0.82</b>		<b>-0.82</b>	<b>-19.52</b>
<i>LMA Totals:</i>	0.84	0.00	0.84	<b>20.00</b>	0.28	0.00	0.28	<b>6.67</b>	<b>-0.56</b>	0.00	<b>-0.56</b>	<b>-13.33</b>

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2008 Levee Maintenance Deficiency Summary Report**

**Overall LMA Ratings, Compare 2008 & 2007**

**Miscellaneous Streams & Basins**

<b>MA0017</b>	Total LMA Miles		<b>3.90</b>									
<b>Maintenance Area 0017</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>U</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	4.08		4.08	<b>104.62</b>		3.13	12.52	<b>321.03</b>	-4.08	3.13	8.44	<b>216.41</b>
Trim / Thin Trees	2.89		2.89	<b>74.10</b>		3.12	12.48	<b>320.00</b>	-2.89	3.12	9.59	<b>245.90</b>
<i>LMA Totals:</i>	6.97	0.00	6.97	<b>178.72</b>	0.00	6.25	25.00	<b>641.03</b>	-6.97	6.25	18.03	<b>462.31</b>

<b>NA0009</b>	Total LMA Miles		<b>11.10</b>									
<b>Lake County Watershed Protection District</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>M</b>				Overall LMA Rating <b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	0.46		0.46	<b>4.14</b>	0.23		0.23	<b>2.07</b>	-0.23		-0.23	<b>-2.07</b>
Trim / Thin Trees	0.54		0.54	<b>4.87</b>	0.19		0.19	<b>1.71</b>	-0.35		-0.35	<b>-3.15</b>
Encroachments	0.06		0.06	<b>0.54</b>	0.04		0.04	<b>0.36</b>	-0.02		-0.02	<b>-0.18</b>
Erosion / Bank Caving	0.05		0.05	<b>0.45</b>	0.10		0.10	<b>0.90</b>	0.05		0.05	<b>0.45</b>
<i>LMA Totals:</i>	1.11	0.00	1.11	<b>10.00</b>	0.56	0.00	0.56	<b>5.05</b>	-0.55	0.00	-0.55	<b>-4.96</b>

<b>NA0015</b>	Total LMA Miles		<b>3.20</b>									
<b>Plumas County</b>	<b>Fall 2007</b>				<b>Fall 2008</b>				<b>Change</b>			
	Overall LMA Rating <b>U</b>				Overall LMA Rating <b>A</b>							
Rated Item	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %	M Miles	U Miles	M+4U Miles	Thresh. %
Vegetation	6.44		6.44	<b>201.25</b>					-6.44		-6.44	<b>-201.25</b>
Erosion / Bank Caving	0.02		0.02	<b>0.63</b>					-0.02		-0.02	<b>-0.63</b>
<i>LMA Totals:</i>	6.46	0.00	6.46	<b>201.88</b>	0.00	0.00	0.00	<b>0.00</b>	-6.46	0.00	-6.46	<b>-201.88</b>

\* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.



## **Appendix B: Fall 2008 Channel Maintenance Deficiency Summary Report**



**Flood Control Project Maintenance**  
**2008 Channel Summary Report**  
**Overall Unit and Item Ratings**

**Adin Community Service District**

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**Ash Creek**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	M

**Dry Creek**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Flood Control Project Maintenance**  
**2008 Channel Summary Report**  
**Overall Unit and Item Ratings**

**Department Of Water Resources**

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**Big Chico Creek**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	M
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Lindo Channel & Sandy Gulch**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	M
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Little Chico Creek**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	M
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Flood Control Project Maintenance**  
**2008 Channel Summary Report**  
**Overall Unit and Item Ratings**

**Fairfield Suisun Sewer District**

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**Laurel Creek**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**McCoy Creek**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Union Avenue Diversion**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Flood Control Project Maintenance**  
**2008 Channel Summary Report**  
**Overall Unit and Item Ratings**

**Madera County**

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**Ash Slough**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	M
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Berenda Slough**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	M
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Chowchilla River**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	M
	Shoaling	A
	Encroachments	M
	Rip Rap Revetments	A
	Erosion	A

**Fresno River**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	M
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Flood Control Project Maintenance**  
**2008 Channel Summary Report**  
**Overall Unit and Item Ratings**

**Merced Irrigation District**

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**Bear Creek**

Overall Unit Rating	Rated Item	Item Rating
<b>M</b>	Vegetation & Obstructions	M
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	U

**Black Rascal Creek**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Burns Creek**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Mariposa Creek & Duck Slough**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	M

**Miles Creek**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	M
	Rip Rap Revetments	A
	Erosion	A

**Owens Creek**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Flood Control Project Maintenance**  
**2008 Channel Summary Report**  
**Overall Unit and Item Ratings**

**Placer County**

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**Truckee River**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	M
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Flood Control Project Maintenance**  
**2008 Channel Summary Report**  
**Overall Unit and Item Ratings**

**Tehama County Flood Control and Water Conservation District**

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**McClure Creek**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**Salt Creek**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	U

**Flood Control Project Maintenance**  
**2008 Channel Summary Report**  
**Overall Unit and Item Ratings**

**San Joaquin County Flood Control District**

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**Duck Creek Diversion Channel**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**North Littlejohn Creek**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	M
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	M
	Erosion	A

**South Littlejohn Creek**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

**South Littlejohn Creek North Branch**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Shoaling	A
	Encroachments	A
	Rip Rap Revetments	A
	Erosion	A

# **Appendix C: Fall 2008 Structure Maintenance Deficiency Summary Report**



Flood Control Project Maintenance

2008 Structure Summary Report

Overall Unit and Item Ratings

Butte County Public Works

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**Big Chico Creek Diversion Structure**

Overall Unit Rating	Rated Item	Item Rating
A	Vegetation & Obstructions	A

**Lindo Channel Control Structure**

Overall Unit Rating	Rated Item	Item Rating
A	Concrete Foundations	A

**Lindo Channel Diversion Weir**

Overall Unit Rating	Rated Item	Item Rating
A	Concrete Foundations	A

**Flood Control Project Maintenance**  
**2008 Structure Summary Report**  
**Overall Unit and Item Ratings**

**Department Of Water Resources**

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**Paradise Dam**

Overall Unit Rating	Rated Item	Item Rating
<b>M</b>	Vegetation & Obstructions	M
	Encroachments	A
	Erosion Areas	M

Flood Control Project Maintenance

2008 Structure Summary Report

Overall Unit and Item Ratings

Lake County Watershed Protection District

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Clover Creek Diversion Structure

Overall Unit Rating	Rated Item	Item Rating
M	Culverts: Inlets / Outlets	M
	Sluice/Slide Gates	A
	Concrete Surfaces	M

Highland Canal Diversion Weir And Drainage Structure

Overall Unit Rating	Rated Item	Item Rating
A	Culverts: Inlets / Outlets	A

**Flood Control Project Maintenance  
2008 Structure Summary Report  
Overall Unit and Item Ratings**

**Lower San Joaquin Levee District**

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**Ash Slough Drop Structure No. 1**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Revetments	A
	Erosion Areas	M
	Concrete Tilting / Settlement	A
	Concrete Foundations	A
	Monolith Joints	A

**Ash Slough Drop Structure No. 2**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Revetments	A
	Erosion Areas	A
	Concrete Tilting / Settlement	A
	Concrete Foundations	A
	Monolith Joints	A

**Ash Slough Drop Structure No. 3**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Revetments	A
	Concrete Tilting / Settlement	A
	Concrete Foundations	A
	Monolith Joints	A

**Ash Slough Drop Structure No. 4**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	M
	Revetments	A
	Concrete Tilting / Settlement	A
	Concrete Foundations	A
	Monolith Joints	A

**Bear Creek Diversion Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Revetments	A
	Electric Gate Operators	A
	Concrete Surfaces	M
	Concrete Foundations	A
	Monolith Joints	A

**Flood Control Project Maintenance  
2008 Structure Summary Report  
Overall Unit and Item Ratings**

**Lower San Joaquin Levee District (cont.)**

**Eastside Bypass Control Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Encroachments	A
	Revetments	A
	Sluice/Slide Gates	A
	Electric Gate Operators	A
	Concrete Surfaces	A
	Concrete Foundations	A
	Other Metallic Items	A
	Monolith Joints	A

**Eastside Bypass Drop Structure No. 1**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Revetments	A
	Concrete Tilting / Settlement	A
	Concrete Foundations	A
	Monolith Joints	A

**Eastside Bypass Drop Structure No. 2**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Revetments	A
	Concrete Tilting / Settlement	A
	Concrete Foundations	A
	Monolith Joints	A

**Fresno River Drainage Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	M
	Encroachments	A
	Revetments	A
	Culverts: Inlets / Outlets	A
	Flap Gates	A
	Manual Operations	M
	Concrete Foundations	A

**Mariposa Bypass Control Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Revetments	M
	Electric Gate Operators	A
	Concrete Surfaces	A
	Concrete Foundations	A
	Closure Structures	A
	Other Metallic Items	A
	Monolith Joints	A

**Flood Control Project Maintenance**  
**2008 Structure Summary Report**  
**Overall Unit and Item Ratings**

**Lower San Joaquin Levee District (cont.)**

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**Mariposa Bypass Drop Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Concrete Surfaces	A
	Concrete Foundations	A
	Monolith Joints	A

**Owens Creek Control Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Concrete Surfaces	U
	Concrete Foundations	A
	Closure Structures	A

**Owens Creek Overflow Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Revetments	M
	Culverts: Inlets / Outlets	A
	Concrete Surfaces	A
	Concrete Foundations	A

**San Joaquin River And Chowchilla Canal Bypass Control Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Revetments	A
	Sluice/Slide Gates	A
	Electric Gate Operators	A
	Concrete Surfaces	A
	Concrete Tilting / Settlement	A
	Concrete Foundations	A
	Monolith Joints	A

**San Joaquin River Structure And Sand Slough Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	M
	Encroachments	A
	Revetments	A
	Manual Operations	A
	Concrete Surfaces	A
	Concrete Foundations	A

**Flood Control Project Maintenance**  
**2008 Structure Summary Report**  
**Overall Unit and Item Ratings**

**Madera County FCWCA**

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**Ash And Berenda Slough Control Structures**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	M
	Revetments	A
	Concrete Foundations	A
	Closure Structures	A
	Trash Rakes	M

**Fresno River Diversion Weir**

Overall Unit Rating	Rated Item	Item Rating
<b>M</b>	Encroachments	U
	Concrete Foundations	A

**Flood Control Project Maintenance**  
**2008 Structure Summary Report**  
**Overall Unit and Item Ratings**

**Merced Irrigation District**

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**Black Rascal Creek Drop Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	M
	Encroachments	A
	Concrete Foundations	A
	Security Fencing	A

**Owens Creek Siphon Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>M</b>	Culverts: Inlets / Outlets	M
	Concrete Foundations	A

**Flood Control Project Maintenance**

**2008 Structure Summary Report**

**Overall Unit and Item Ratings**

**Plumas County**

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**North Fork Feather River Diversion Channel Drop Structure Drop Structures  
No. 1 & 3 Through 7**

Overall Unit Rating	Rated Item	Item Rating
A	Concrete Surfaces	A

**North Fork Feather River Diversion Structure**

Overall Unit Rating	Rated Item	Item Rating
A	Culverts: Inlets / Outlets	A
	Trash Racks	A
	Electric Gate Operators	A
	Closure Structures	A

**Flood Control Project Maintenance**  
**2008 Structure Summary Report**  
**Overall Unit and Item Ratings**

**Reclamation District No. 0999**

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**Elk Slough Inlet Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Erosion Areas	A
	Culverts: Inlets / Outlets	A
	Manual Operations	A

**Flood Control Project Maintenance**  
**2008 Structure Summary Report**  
**Overall Unit and Item Ratings**

**Sacramento Maintenance Yard**

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**Cache Creek Setting Basin Weir And Drainage Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Revetments	A
	Sluice/Slide Gates	A
	Concrete Surfaces	A
	Security Fencing	A
	Closure Structures	A

**Fremont Weir**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Revetments	A
	Concrete Surfaces	A
	Other Metallic Items	A

**Knights Landing Outfall Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Erosion Areas	A
	Metal Pipes	A
	Flap Gates	A
	Sluice/Slide Gates	A
	Electric Gate Operators	A
	Manual Operations	A
	Concrete Surfaces	A
	Security Fencing	A
	Trash Rakes	A

**Sacramento Weir**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Manual Operations	A
	Concrete Surfaces	A

**Flood Control Project Maintenance**  
**2008 Structure Summary Report**  
**Overall Unit and Item Ratings**

**San Joaquin County Flood Control District**

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**Duck Creek Diversion Weir And Control Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	M
	Revetments	A
	Sluice/Slide Gates	A
	Concrete Surfaces	A
	Concrete Foundations	A

**Flood Control Project Maintenance**

**2008 Structure Summary Report**

**Overall Unit and Item Ratings**

**Sutter Maintenance Yard**

**Butte Slough Drainage Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>M</b>	Vegetation & Obstructions	M

**Butte Slough Outfall Structure**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A

**Colusa Weir**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	No Items	A

**Little Chico Creek Control And Weir Structures**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Concrete Foundations	A

**Moulton Weir**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Concrete Foundations	A

**Nelson Bend**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Vegetation & Obstructions	A
	Encroachments	A
	Revetments	A

**Sutter Bypass Weir No. 2**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Concrete Foundations	A

**Tisdale Weir**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Concrete Foundations	A

**Wadsworth Canal Weir No. 4**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Concrete Foundations	A



## **Appendix D: Fall 2008 Pumping Plant Maintenance Deficiency Summary Report**



**Flood Control Project Maintenance**  
**2008 Pumping Plant Summary Report**  
**Overall Unit and Item Ratings**

**City of Sacramento**

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**Magpie Creek Pumping Plant**

Overall Unit Rating	Rated Item	Item Rating
A	Operating Log	A
	Operation & Maintenance Manual	A
	Plant Building	A
	Communications	A
	Safety	M
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	A
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	A
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**Flood Control Project Maintenance**  
**2008 Pumping Plant Summary Report**  
**Overall Unit and Item Ratings**

**Reclamation District No. 2063**

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**Reclamation District No. 2063 Pumping Plant (Nelson Drain)**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	U
	Operation & Maintenance Manual	U
	Plant Building	A
	Communications	A
	Safety	A
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	A
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	U
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**Flood Control Project Maintenance**  
**2008 Pumping Plant Summary Report**  
**Overall Unit and Item Ratings**

**Reclamation District No. 2096**

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**Wetherbee Lake Pumping Plant & Navigation Gate**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	U
	Operation & Maintenance Manual	U
	Plant Building	A
	Communications	A
	Safety	M
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	A
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	M
	Flap Gates	A
	Closure Structures	A
	Security Fencing	A
Intake and Discharge Pipes	A	

**Flood Control Project Maintenance**  
**2008 Pumping Plant Summary Report**  
**Overall Unit and Item Ratings**

**Sacramento County**

**American River Pumping Plant No. 1 Howe Avenue Storm Drain D - 05**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	A
	Operation & Maintenance Manual	A
	Plant Building	A
	Communications	A
	Safety	A
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	A
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	A
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**American River Pumping Plant No. 2 Willhaggin Storm Drain D - 43**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	A
	Operation & Maintenance Manual	A
	Plant Building	A
	Communications	A
	Safety	A
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	A
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	A
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**Flood Control Project Maintenance**  
**2008 Pumping Plant Summary Report**  
**Overall Unit and Item Ratings**

**San Joaquin County Flood Control District**

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**Mormon Slough Pumping Plant No. 1**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	U
	Operation & Maintenance Manual	A
	Plant Building	A
	Communications	A
	Safety	A
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	A
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	A
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**Mormon Slough Pumping Plant No. 2**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	U
	Operation & Maintenance Manual	A
	Plant Building	M
	Communications	A
	Safety	A
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	A
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	A
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**Flood Control Project Maintenance**  
**2008 Pumping Plant Summary Report**  
**Overall Unit and Item Ratings**

**San Joaquin County Flood Control District (cont.)**

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**Mormon Slough Pumping Plant No. 3**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	U
	Operation & Maintenance Manual	A
	Plant Building	A
	Communications	A
	Safety	A
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	A
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	M
Intake and Discharge Pipes	A	
Pressurized Pipe	A	

**Flood Control Project Maintenance**  
**2008 Pumping Plant Summary Report**  
**Overall Unit and Item Ratings**

**Sutter Maintenance Yard**

**Middle Creek Pumping Plant**

Overall Unit Rating	Rated Item	Item Rating
<b>M</b>	Operating Log	U
	Operation & Maintenance Manual	U
	Plant Building	M
	Communications	A
	Safety	A
	Cranes	A
	Pumps	M
	Power	A
	Motors, Engines, Fans & Gear Reducers	M
	Pump Control Systems	M
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	M
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**Sutter Bypass Pumping Plant No. 1**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	A
	Operation & Maintenance Manual	A
	Plant Building	A
	Communications	A
	Safety	A
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	M
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	A
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**Flood Control Project Maintenance**  
**2008 Pumping Plant Summary Report**  
**Overall Unit and Item Ratings**

**Sutter Maintenance Yard (cont.)**

**Sutter Bypass Pumping Plant No. 2**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	A
	Operation & Maintenance Manual	A
	Plant Building	A
	Communications	A
	Safety	A
	Cranes	A
	Pumps	U
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	M
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	A
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**Sutter Bypass Pumping Plant No. 3**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	A
	Operation & Maintenance Manual	A
	Plant Building	A
	Communications	A
	Safety	A
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	M
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Closure Structures	A
	Security Fencing	A
	Intake and Discharge Pipes	A
	Pressurized Pipe	A

**Flood Control Project Maintenance**

**2008 Pumping Plant Summary Report**

**Overall Unit and Item Ratings**

**Turlock Irrigation District--Formerly LD0023**

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**Gomes Lake Pumping Plant**

Overall Unit Rating	Rated Item	Item Rating
<b>A</b>	Operating Log	A
	Operation & Maintenance Manual	A
	Plant Building	A
	Communications	A
	Safety	A
	Cranes	A
	Pumps	A
	Power	A
	Motors, Engines, Fans & Gear Reducers	A
	Pump Control Systems	A
	Sumps/Wet Well	A
	Trash Racks	A
	Trash Rakes	A
	Sluice / Slide Gates	A
	Electric Gate Operators	A
	Manual Gate Operators	A
	Other Metallic Items	A
	Flap Gates	A
	Security Fencing	A
	Intake and Discharge Pipes	A
Pressurized Pipe	A	