

**Meeting of the Central Valley Flood Protection Board  
March 8, 2013**

**Staff Report – Information for the CVFPB Regarding Under-Maintained Levees**

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**1.0 – ITEM**

Information to facilitate a policy discussion regarding under-maintained levees in the state of California and options available.

**2.0 – UNDER-MAINTAINED LEVEES**

LMA: Local Maintaining Area

NA: Named Area

MA: Maintenance Area (Formed when LMA dissolved or failed to maintain properly)

RD: Reclamation District

ST: State Area (Has always been maintained by the State)

Currently under review: Huff's Corner (Cache Creek, Yolo County)

Areas with no LMA: NA 0006, Paradise Dam

Areas that failed to report to DWR: RD 2035 (Conway Ranch)

Challenged LMA's: NA 0011, NA 0013, NA 0014, NA 0020, MA 0017, RD 0349, RD 0501, RD 0524, RD 0536, RD 0556, RD 0563, RD 0765, RD 0999, RD 2063, RD 2089, RD 2101, RD 2104, ST 006

(See Attachment A)

**3.0 – MAINTENANCE AREA FORMATION**

(See Attachment C)

**4.0 – POSSIBLE OUTCOMES OF THE MA FORMATION PROCESS**

The process of forming a MA can:

- Lead to the LMA improving its maintenance activity using its existing budget
- Lead to the LMA improving its maintenance activity with additional Proposition 218 assessments
- A State Maintenance Area can be formed
- Formal USACE decertification of the project

## **5.0 – STAFF’S RECOMMENDATION FOR UNDER-MAINTAINED LEVEES**

- Include under-maintained levees in Regional Planning and outreach
- CVFPB members visit under-maintained levees and discuss difficulties with LMA’s
- Invite LMA’s to attend CVFPB meetings to discuss difficulties with maintenance and funding

## **6.0 – ATTACHMENTS**

- A. List of Under-Maintained Levees (Staff Report Page # 3)
- B. LMA Summary (Staff Report Page # 4)
- C. General Procedure for Establishing a Maintenance Area (Staff Report Page # 9)
- D. DWR Inspection Ratings for Non-Compliance LMAs (Staff Report Page # 12)
- E. Maps – LMAs Not in Compliance (Staff Report Page # 13)

LMA / AREA	GENERAL LOCATION	LEVEE LENGTH (MILES)	(2013) REPORTED ANNUAL BUDGET
NA0006, Eastern Honcut Creek	North of Yuba City	1.5	NONE
NA0011, Madera County FCWA	San Joaquin River Basin	26.7	\$1.25 Million
NA0013, Merced County Streams Group	San Joaquin River Basin	6.4	\$40,500
NA0014, M&T Ranch	West of Chico on Sacramento River	0.8	\$20,000
NA0020, East-West Interceptor	Sutter / Butte Basin	4.8	\$26,000
NA0021, Huffs Corner	North of Woodland on Cache Creek	0.3	NONE
MA0017, Lake County	Lake County	3.9	\$91,200
RD0349, Sutter Island	Northern Delta, Lower Sacramento River	12.5	NONE
RD0501, Ryer Island	North Delta	20.5	\$80,000
RD0524, Middle Roberts Island	Southern Delta	6.3	\$80,000
RD0536, Egbert	North Delta North of Rio Vista	10.6	\$11,000
RD0556, Upper Andrus	North Delta	11.1	NONE
RD0563, Tyler Island	North Eastern Delta South of Walnut Grove	12.4	\$160,000
RD0765, Glide	Sacramento River South of West Sacramento	1.7	NONE
RD0999, Netherlands	South of West Sacramento	32.4	\$415,000
RD2035, Conway Ranch	North West of West Sacramento	12.1	NONE
RD2063, Crows Landing	San Joaquin River	10.6	\$83,000
RD2089, Stark	Southern Delta	2.9	\$25,000
RD2101, Blewett	San Joaquin River	3.5	\$25,000
RD2104, Peters Pocket Tract	North Western Delta	7.4	NONE
ST0006, Nelson Bend	Feather River and Sutter Bypass	0.5	NONE
Paradise Dam	San Joaquin System on the Paradise Cut	NA	NONE

## LMA Summary

March 7, 2013

### **NA0006, Eastern Honcut Creek:**

- This area includes levees south of Honcut Creek to the east of the railroad lines.
- The area is agricultural and a duck club. No formal LMA in this area.
- Maintenance Area formation has been researched but serious access issues exist.
- There has been a significant amount of crown surface roadway issues in the past but in 2012 most of the issues were obstructive vegetation.
- The eastern area may or may not be separate from RD0010 to the west of the railroad tracks. This area may be able to be removed with modifications to or adjacent to the railroad embankment.
- The area's levees are 1.5 miles long and no planned budget number is available.
- No USACE inspections have been finalized for this area.

### **NA0011, Madera County FCWA:**

- This area includes levees along several channels in the southern portion of the San Joaquin River Basin.
- Areas protected are predominantly agricultural.
- There is a large length of obstructive vegetation and animal control issues that have been getting significantly worse in recent years.
- The area's levees are 26.7 miles long and a planned budget for 2013 was reported as \$1.25 million.
- No USACE inspections have been finalized for this area.

### **NA0021, Yolo County Public Works (Huff's Corner):**

- This area includes a levee along the south side of Cache Creek immediately west of I-5 and north of the city of Woodland.
- The area protected is mostly agricultural but includes a county road and possibly portions of Woodland.
- There is a large length of obstructive vegetation on this levee.
- The LMA has expressed an interest in DWR taking over maintenance of this LMA.
- The levee is 0.3 miles long and no planned budget number is available.
- No USACE inspections have been finalized for this area.

### **NA0013, Merced County Streams Group:**

- This area includes levees along several channels in the southern portion of the San Joaquin River Basin.
- Areas protected include agricultural areas but may also include some residences.
- There is a large length of animal control issues and a significant amount of obstructive vegetation.
- The area's levees are 6.4 miles long and a planned budget for 2013 was reported as \$40,500.
- No USACE inspections have been finalized for this area.

**NA0014, M&T Ranch:**

- This levee and weir do not directly provide protection for an area but are designed as an overflow in the event of high water at the top of the Butte basin. Sutter Yard performs some maintenance. DWR may have obligation to maintain using general funds. DWR's Flood Maintenance Office can elaborate.
- An abundance of Elderberry bushes in the area may limit maintenance.
- The area's levees are 0.8 miles long and include an overflow structure. A planned budget for 2013 was reported as \$20,000.
- No USACE inspections have been finalized for this area.

**NA0020, East-West Interceptor:**

- These levees and the adjacent channel do not directly protect an area but divert sheet flow from the east side of the Sutter Buttes into the Wadsworth Canal in the area west of Yuba City. Sutter Yard performs maintenance.
- A large amount of obstructive vegetation and erosion exist.
- The need for these structures may need to be evaluated and possible modifications made to the size and extent that is required to be maintained. DWR's Flood Maintenance Office can elaborate.
- The area's levees are 4.8 miles long and a planned budget for 2013 was reported as \$26,000.
- The USACE has indicated that there are issues they are concerned about and that would result in these two specific segments being rated as Unacceptable and Inactive.

**MA0017, Lake County:**

- These levees are along the lower portion of Middle Creek north of Clear Lake.
- The levees have always had issues including stability and seepage. There is generally long length of obstructive vegetation.
- Land behind the levee is in the process of being purchased so a portion of this area can be modified.
- The area's levees are 3.9 miles long and a planned budget for 2013 was reported as \$91,200.
- No USACE inspections have been finalized for this area, but will be in the near future.

**RD0349, Sutter Island:**

- This area is an island in the northern delta, lower Sacramento River.
- The island is smaller with mostly agricultural land.
- In 2009 to 2011 maintenance increased but in 2012 a long length of obstructive vegetation was noted. No emergency materials, manuals, or plans were available from the LMA during inspections.
- The area's levees are 12.5 miles long and a no planned budget for 2013 was reported.
- The USACE noted this area as inactive in PL 84-99 on 07/28/2008.

**RD0501, Ryer Island:**

- This area is island in the northern delta.
- The island is larger with mostly agricultural land.
- Maintenance has been increasing some but there is still a long length of obstructive vegetation.
- The area's levees are 20.5 miles long and a planned budget for 2013 was reported as \$80,000.
- No USACE inspections have been finalized for this area.

**RD0524, Middle Roberts Island:**

- This area includes a levee in the east side of an island in the southern delta along the left bank of the San Joaquin River.
- The island is larger with mostly agricultural land but some residences.
- Some maintenance is done but there is a long length of obstructive vegetation and erosion. No manuals or emergency plans were available from the LMA during inspections.
- The area's levees are 6.3 miles long and a planned budget for 2013 was reported as \$80,000.
- The USACE noted this area as Unacceptable and inactive in PL 84-99 on 05/14/2012.

**RD0536, Egbert:**

- This area includes a levee in the north delta north of Rio Vista.
- This is a medium sized area including agricultural land and has a large length of obstructive vegetation and crown surface roadway issues.
- There is a history of cracking in this levee also. No emergency materials, manuals, or plans were available from the LMA during inspections.
- The area's levees are 10.6 miles long and a planned budget for 2013 was reported as \$11,000.
- No USACE inspections have been finalized for this area.

**RD0556, Upper Andrus:**

- This area includes levees in the north delta on a portion of an island along the Sacramento River.
- The area includes primarily agricultural land but may have an impact on the larger Brannan Island and the city of Isleton.
- There are long lengths of obstructive vegetation and animal control issues. No emergency materials, manuals, or plans were available from the LMA during inspections.
- The area's levees are 11.1 miles long and a planned budget for 2013 was not reported.
- No USACE inspections have been finalized for this area.

**RD0563, Tyler Island:**

- This area includes levees on the west side of an island in the north eastern delta south of Walnut Grove.
- The area is primarily agricultural but the levee may have an impact on the city of Walnut Grove.
- Maintenance has increased since 2007 but a significant amount of obstructive vegetation remains.
- The area's levees are 12.4 miles long and a planned budget for 2013 was reported as \$160,000.
- No USACE inspections have been finalized for this area.

**RD0765, Glide:**

- This area is a levee on the western side of the Sacramento River south of West Sacramento.
- The area includes agricultural land and some small communities.
- There is a large length of obstructive vegetation in this area and no manuals or emergency plans were available from the LMA during inspections.
- The USACE's system definition for this area currently includes the City of West Sacramento.
- The area's levees are 1.7 miles long and a planned budget for 2013 was not reported.
- No USACE inspections have been finalized for this area, but will be in the near future.

**RD0999, Netherlands:**

- This is a larger area south of West Sacramento.

- The area includes agricultural land and some small communities.
- Maintenance issues vary and the LMA does perform maintenance, but crown surface roadway, obstructive vegetation, and animal control issues persist.
- The USACE's system definition for this area currently includes the City of West Sacramento.
- The area's levees are 32.4 miles long and a planned budget for 2013 was reported as \$415,000.
- No USACE inspections have been finalized for this area but will be in the future.

**RD2035, Conway Ranch:**

- This area includes levees along the Yolo Bypass east of the city of Woodland.
- The area includes agricultural land and some portions of Woodland.
- Generally adequate maintenance performed but does not participate in LMA Reporting.
- The area's levees are 12.1 miles long and. No budget information is available as the LMA does not do any reporting.
- No USACE inspections have been finalized for this area.

**RD2063, Crows Landing:**

- This area includes levees along the east side of the San Joaquin River.
- The area is primarily agricultural with some dairies.
- Periodic maintenance is performed but generally significant maintenance issues. These issues include a large length of crown surface roadway issues but also obstructive vegetation. There is also a large erosion site in this district that the LMA has not repaired.
- The area's levees are 10.6 miles long and a planned budget for 2013 was reported as \$83,000.
- The USACE noted this area (the system includes RD2091 and RD2063) as Unacceptable and partially inactive in PL 84-99 on 01/18/2008.

**RD2089, Stark:**

- This area includes levees along the south side of an island in the southern delta.
- The island is small and agricultural with a few residences.
- There are generally significant lengths of maintenance issues including a large amount of obstructive vegetation and some animal control issues.
- The area's levees are 2.9 miles long and a planned budget for 2013 was reported as \$25,000.
- No USACE inspections have been finalized for this area, but will be in the near future.

**RD2101, Blewett:**

- This area includes levees along the west side of the San Joaquin River.
- The area is a small rural area along the San Joaquin River.
- There is a long length of obstructive vegetation, although this has decreased significantly in 2012. There is also a significant amount of erosion.
- The area's levees are 3.5 miles long and a planned budget for 2013 was reported as \$25,000.
- No USACE inspections have been finalized for this area.

**RD2104, Peters Pocket Tract:**

- This area includes levees on an island in the north western delta.
- The area is a small island with agricultural fields.
- There is a large length of crown surface roadway issues and obstructive vegetation. No emergency materials, manuals, or plans were available from the LMA during inspections.

- The area's levees are 7.4 miles long and a planned budget for 2013 was not reported.
- No USACE inspections have been finalized for this area.

**ST0006, Nelson Bend:**

- This area includes a levee at the confluence of the Feather River and Sutter Bypass.
- There is no area it directly protects but it directs the flow of the Feather River downstream along the Sutter Bypass and includes a rock weir.
- There is a large length of obstructive vegetation on this levee. A rock weir is adjacent to the levee to the north. DWR's Flood Maintenance Office can elaborate.
- The area's levees are 0.5 miles long and have the adjacent rock weir. A planned budget for 2013 was not reported.
- No USACE inspections have been finalized for this area.

**Paradise Dam:**

- This is a structure in the San Joaquin system on the Paradise Cut to limit flow through the channel. No formal LMA exists for this structure.
- No USACE inspections have been finalized for this area.



## General Procedure for Establishing a Maintenance Area

The procedure is covered in Water Code Sections 12878 through 12878.21. It assumes that the unit is part of a “project” within the meaning of Water Code Section 12639 or WC 12850, or a “project” that USACE has performed work upon under Section 208 of PL 83-780, and it also assumes that appropriate assurances of proper operation and maintenance have been given to the federal government.

### Procedure

1. An event occurs to initiate the procedure. This event is either:
  - a. The Local Maintaining Agency has determined that it no longer desires to operate and maintain a unit of a project, and has provided a resolution to that effect to the The Central Valley Flood Protection Board (CVFPB) or Department of Water Resources (DWR), or
  - b. CVFPB or DWR has determined that a unit of a project is not being operated or maintained in accordance with the standards established by federal regulations.
2. If neither CVFPB nor DWR has given the nonfederal assurances to the federal government, CVFPB or DWR determines whether assumption of operation and maintenance of the unit is in the best interest of the State. (CVFPB or DWR means CVFPB in the area where it has jurisdiction, and DWR elsewhere in the State.)
  - a. If the determination is positive, continue with step 3.
  - b. If the determination is negative, no MA will be formed.
3. CVFPB or DWR prepares a “Statement of Necessary Work” containing:
  - a. A statement that it has received the resolution or has determined that maintenance or operation is inadequate
  - b. A description of the unit
  - c. The name of the local maintaining agency
  - d. A statement of the work that needs to be done to maintain and operate the unit
  - e. A cost estimate for the current fiscal year and the one following.
3. CVFPB or DWR transmits the statement to the LMA.
4. LMA has 45 days to protest the statement to CVFPB or DWR. *(If this is a proceeding initiated by the LMA, and if the statement preparation is coordinated with the LMA, the LMA will probably not object, and may opt to provide a second resolution waiving the 45-day period.)*

5. CVFPB or DWR establishes the amounts required to operate and maintain the unit during the current and next fiscal years.
  - a. If LMA protests, CVFPB or DWR must hold a hearing within 30 days on the protest, giving 10-day notice. 30 days after the hearing, CVFPB or DWR may accept LMA assurances of adequate maintenance and drop the proceedings, or may establish the cost to maintain the unit for the current and following fiscal years.
  - b. If the LMA does not protest, CVFPB or DWR must use the amount specified in the Statement of Necessary Work (see Step 3e).
6. CVFPB or DWR prepares a map and description of the maintenance area, dividing it into zones if appropriate and defining the percentage flood benefit of each zone.
7. CVFPB or DWR holds a hearing to establish the MA boundaries, zones and benefit percentages. The hearing may be either within the LMA or at Sacramento. There must be 2-week notice and the map must be made available to interested parties.
8. After the hearing, CVFPB or DWR establishes the boundaries, zones, and percentage benefits in such a way that all lands benefited by operation and maintenance of the unit are included and classified according to the benefits received.
9. CVFPB or DWR establishes the maintenance area in an official document describing its name, number, boundary, zones, and percentage benefits. This document is either:
  - a. A resolution of CVFPB, or
  - b. An order of the Director of DWR.
10. The CVFPB Resolution or DWR Director's order is filed with the county recorder of each county containing part of the MA. This completes the MA establishment process.
11. DWR maintains the MA. DWR establishes the MA budget annually before April 1, holds a public budget hearing after April 1, with the specified notice, adopts the budget, and certifies the amounts of assessments to the county auditors and supervisors. The Counties levy and collect the taxes, allow for delinquencies and collection costs, and transmit the net amount to DWR.

## **Time Estimate**

This is an optimistic schedule that assumes LMA initiation and cooperation and no protest of DWR's initial statement, and no CVFPB involvement:

Prepare Statement and Estimate	6 weeks
Obtain waiver of protest period	1 week
Prepare map and description	6 weeks
DWR hearing on MA boundaries	6 weeks
Establish boundaries, zones, and benefits	2 week
Prepare, issue and file Director's order	4 weeks
<b>TOTAL</b>	<b>25 weeks</b>

If DWR initiates the procedure, allow additional 12 weeks for DWR investigation and documentation of inadequate operation or maintenance.

If CVFPB is involved, add 3 weeks to adjust schedule to coincide with a Board meeting for producing a Board resolution.

If a waiver of the protest period cannot be obtained by LMA resolution, add 6 weeks to complete the 45-day response period.

If the LMA protests (assuming midway in the protest period), add 2 weeks for the protest period and 6 weeks for the minimum notice period, hearing, and after-hearing response period.

## **Costs**

"Cost of operation and maintenance" means, for the purposes of maintenance areas established after July 31, 2004, as the result of relinquishment by a local agency pursuant to Section 12878.1 only, the cost of all maintenance, as defined in subdivision (f), and shall also include, but is not limited to, all of the following costs:

- (1) All costs incurred by the department or the board in the formation of the maintenance area under this chapter.
- (2) Any costs, if deemed appropriate by the department, to secure insurance covering liability to others for damages arising from the maintenance activities of the department or from flooding in the maintenance area.
- (3) Any costs of defending any action brought against the state, the department, or the board, or any employees of these entities, for damages arising from the maintenance activities of the department or from flooding in the maintenance area.
- (4) Any costs incurred in the payment of any judgment or settlement of an action against the state, the department, or the board, or any employees of these entities, for damages arising from the formation of the maintenance area or from any maintenance activities of the department or flooding in the maintenance area.

## LMA's Habitually Not in Compliance

### Channels and Structures:

None

### Levees:

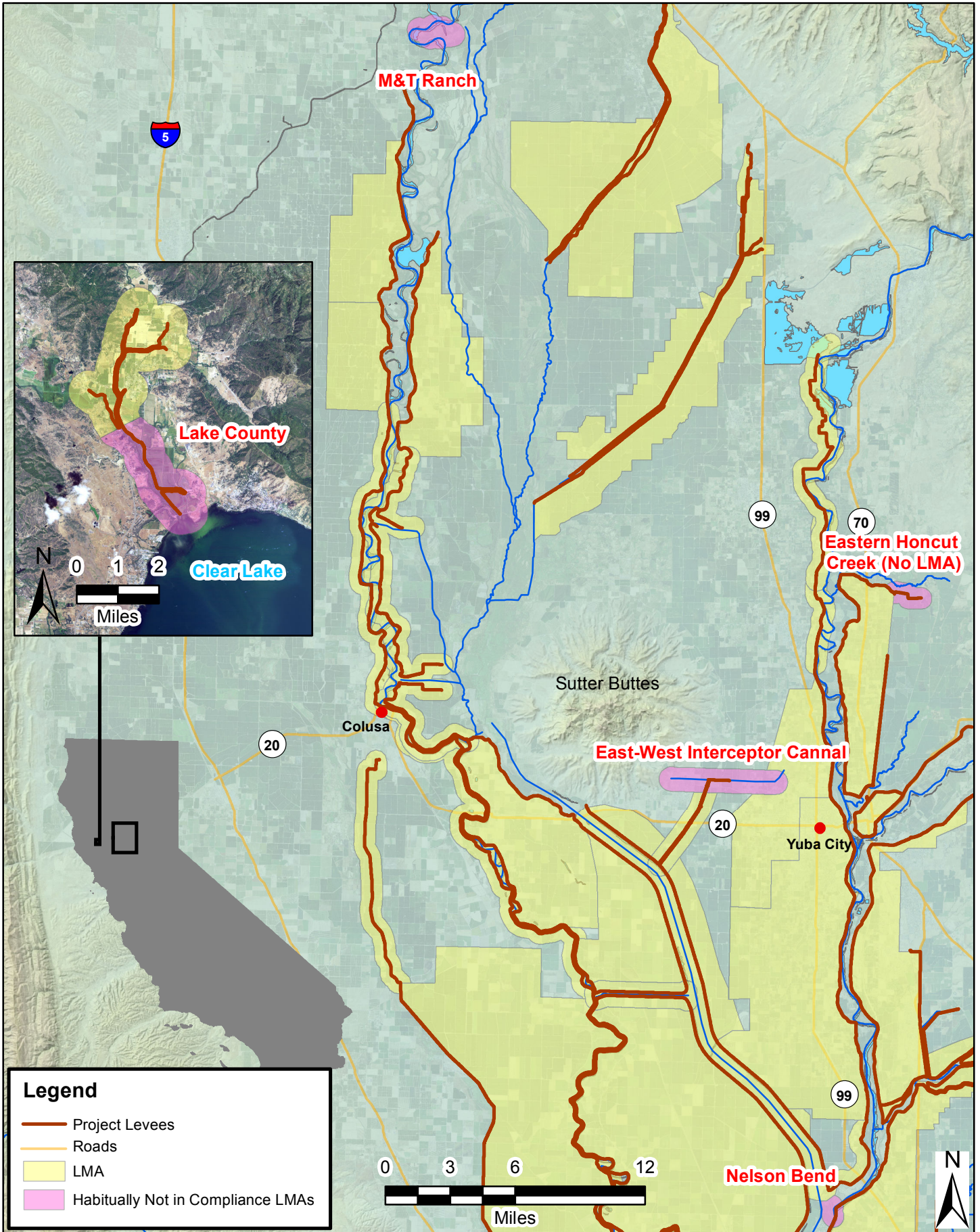
Area	Name	Threshold Percentage*						# of Years Reported*
		2007	2008	2009	2010	2011	2012	
NA0006	Eastern Honcut Creek	231%	246%	607%	241%	241%	198%	0
NA0011	Madera County FCWCA	304%	199%	39%	34%	159%	486%	2
NA0012	Yolo County Public Works (Huff's Corner)	228%	17%	290%	176%	703%	593%	1
NA0013	Merced County Stream Group	39%	168%	136%	55%	103%	104%	5
NA0014	M&T Ranch	460%	246%	296%	64%	90%	63%	3
NA0020	East-West Interceptor Canal	78%	84%	78%	83%	84%	103%	5
MA0017	Lake County	179%	641%	641%	641%	641%	641%	5
RD0349	Sutter Island	265%	92%	26%	22%	43%	115%	5
RD0501	Ryer Island	273%	170%	104%	91%	115%	138%	5
RD0524	Middle Roberts Island	76%	44%	62%	55%	75%	109%	5
RD0536	Egbert	221%	343%	100%	33%	341%	798%	5
RD0556	Upper Andrus	143%	330%	508%	126%	89%	340%	5
RD0563	Tyler Island	663%	238%	92%	44%	82%	81%	2
RD0765	Glide	174%	125%	47%	97%	108%	185%	5
RD0999	Netherlands	255%	52%	32%	142%	34%	30%	5
RD2035	Conway Ranch	39%	6%	0%	N/I*	24%	11%	0
RD2063	Crows Landing	284%	67%	32%	32%	128%	111%	5
RD2089	Stark	76%	376%	110%	122%	270%	270%	5
RD2101	Blewett	156%	156%	149%	219%	128%	24%	3
RD2104	Peters Pocket Tract	67%	407%	79%	114%	337%	770%	2
ST0006	Nelson Bend	948%	308%	308%	286%	286%	198%	5

\*Note: The threshold percentage is used by DWR to determine overall ratings. A percentage greater than 20% results in an Unacceptable rating. The greater the percentage generally indicates more deficiencies. More information on this can be found in Appendix F of the *2012 Inspection and Local Maintaining Agency Report*. Not all areas were inspected in 2010. The number of years reported refers to the number of year the LMA participated in the LMA Annual Reporting Program.

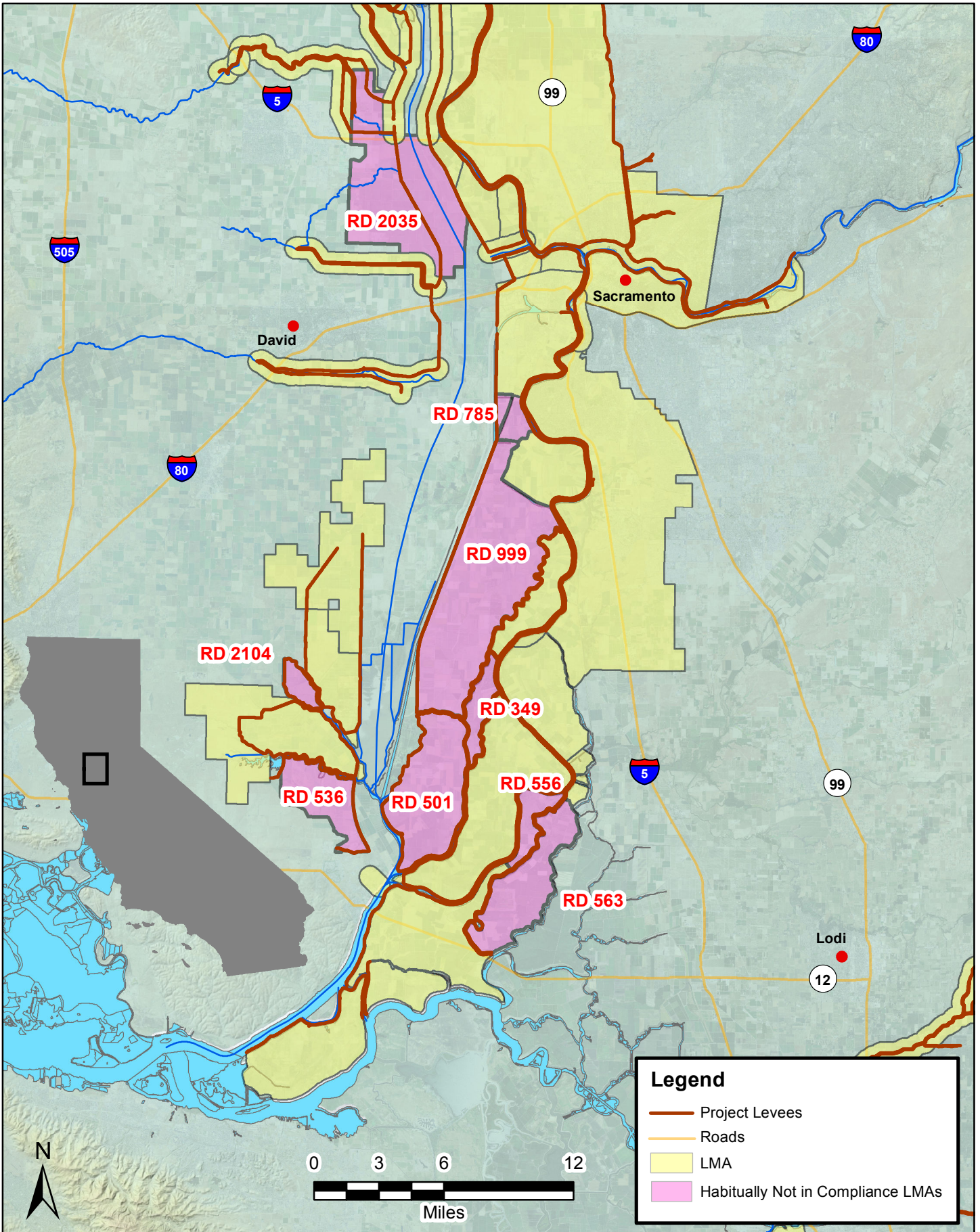
### Areas with no defined LMA:

Eastern Honcut Creek (NA0006)

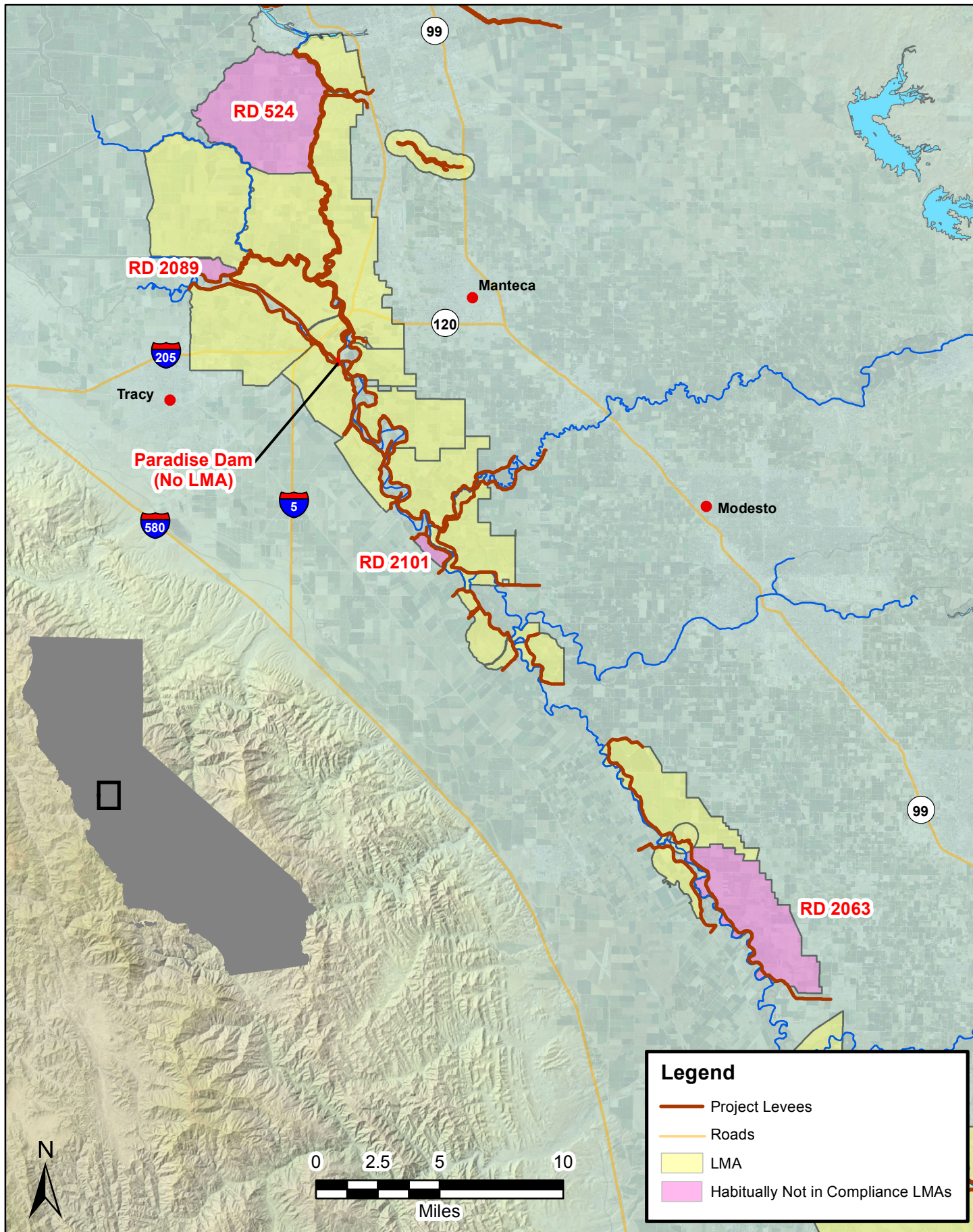
Paradise Dam



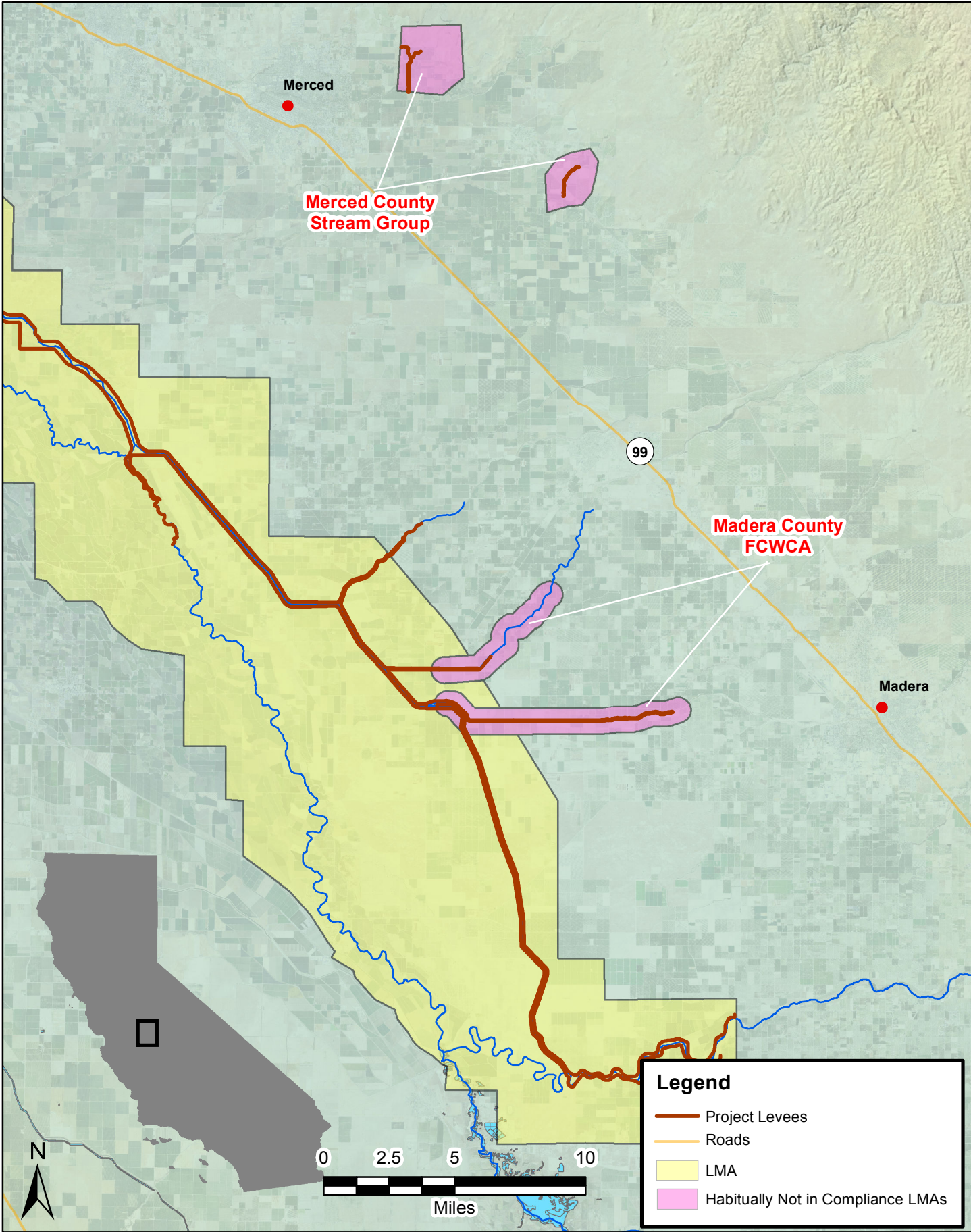
 **LMAs Habitually Not in Compliance**



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