2.1 LANDS IN THE STUDY AREA

Lands in the San Luis Unit study area are unchanged from the previous description presented in the 2002 PFR (Figure 2-1). In the Unit these lands include Westlands Water District (Westlands), and the northern San Luis Unit districts (Northerly Area), which include Broadview Water District, Charleston Drainage District, Pacheco Water District, and Panoche Water District. The total land area within the Unit study area is 689,600 acres. In addition, 40,400 acres of lands contiguous to the northern districts were included in the drainage service analysis because the drainage systems are closely interrelated with the lands in the Unit and Section 5 of the San Luis Act authorizes participation of adjacent lands. The total land area in the Re-evaluation study area is 730,000 acres (Table 2.1-1 in the PFR).

2.2 AREAS NEEDING DRAINAGE BY 2050

Areas needing drainage service by 2050 were previously evaluated in the PFR. The previous evaluation identified 298,000 acres in Westlands and 45,000 acres in the Northerly Area for a total of 343,000 acres within the San Luis Unit. In addition, the PFR identified an additional 36,000 acres of drainage-impaired lands contiguous to the Northerly Area district lands but outside the Unit. For this formulation of land retirement alternatives only lands within the Unit were considered.

Areas needing drainage service have been revised based on land retirement actions that occurred since the publication of the PFR. Table 2-1 illustrates revised estimates of lands needing drainage service in Westlands. Consequently, the revised estimate of lands within the study area needing drainage service is 334,900 acres.

Table 2-1
Revised Estimate of Westlands Water District Lands Needing Drainage Service by 2050

Category	Acres
Previous Westlands Drainage-Impaired Lands Identified in PFR	298,000
Retired Lands (Britz, Sumner Peck, CVPIA)	44,100
Revised Estimate of Lands In Westlands Needing Drainage Service	253,900

2.3 RETIRED LANDS

The total area needing drainage service would be reduced by land retirement programs and actions. Land retirement is defined as the removal of lands from irrigated agricultural production by purchase or lease for other purposes or land uses. Existing retired lands are shown later in this addendum on Figure 3-2 and include lands retired under the Central Valley Project Improvement Act (CVPIA) and settlement agreements.

The PFR Addendum updates land retirement assumptions for the four existing action alternatives (In-Valley, Out-of-Valley, and two Delta alternatives). In the 2002 PFR, 10,000 acres are retired (7,000 from the CVPIA land retirement program and 3,000 from the Britz settlement) for the action alternatives, with an additional 68,400 acres retired under No Action from the Westlands Water District (Sagouspe) settlement. This Sagouspe settlement acreage has been revised to 65,000 acres based on revised estimates from Westlands. The PFR Addendum amends this land retirement to include the Sumner Peck settlement lands (34,100 acres) for a total planned land retirement of 44,100 for the four original action alternatives.

The total area needing drainage service would be reduced further for each of the additional land retirement alternatives. These alternatives are described in Section 5. Table 2-2 shows the estimates of land retirement acreage for all of the alternatives.

Table 2-2
Land Retirement Program Acreages

	No Action Alternative	Action Alternatives	In-Valley Land Retirement Alternatives
Land Retirement Program	**Area (acres)**	**Area (acres)**	**Area (acres)**
CVPIA Land Retirement Program	7,000	7,000	7,000
Britz Settlement	3,000	3,000	3,000
Sumner Peck Settlement	34,100	34,100	34,100
Westlands Settlement (Sagouspe)[1]	65,000	0	Varies[3]
New Alternatives	0	0	48,500 to 263,900
Total	**109,100**	**44,100**	**92,600 to 308,000[2]**

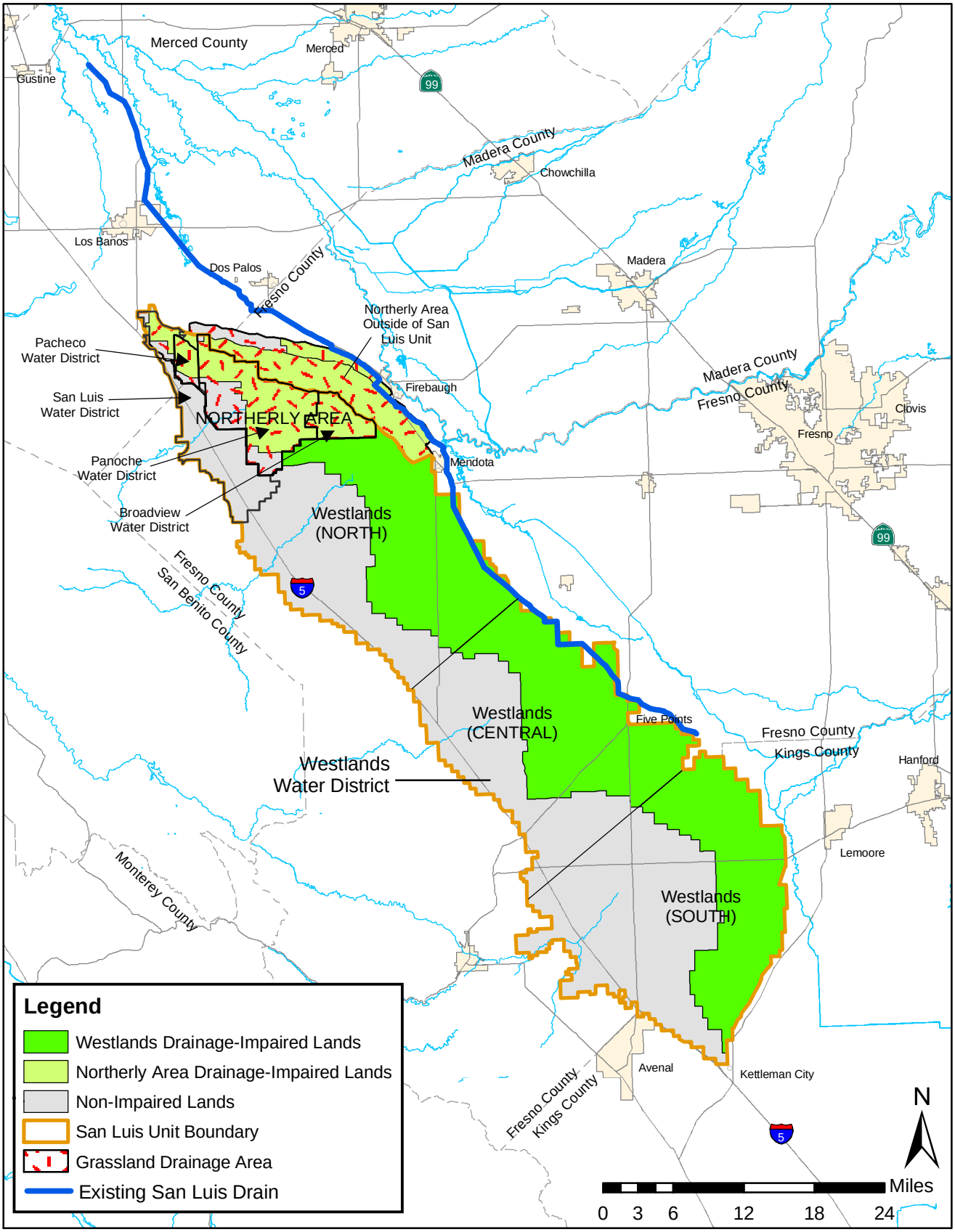
1 Sagouspe settlement lands would return to agricultural production when drainage service is provided.

2 Land retirement alternatives include lands retired under other programs. See preceding paragraphs.

3 Lands recently acquired by Westlands in 2003 overlap with the other categories of land retirement.

2.4 TILE SYSTEMS INSTALLED BY 2050

In the PFR it was estimated that by 2050 farmers would install field drains on two-thirds of the drainage-impaired lands or 254,000 acres. This estimate was based on historical data from the Grassland Drainage Area (which has a drainage disposal outlet) and confirmed with a regional groundwater model (Source Control Memo [URS 2002]). Because the amount of lands needing drainage service in Westlands has decreased to 253,900 acres (due to recent land retirement actions), the total amount of tile systems installed by 2050 would also decrease proportionally to 218,000 acres. These estimates were evaluated with the regional groundwater model and are discussed further in Section 4.



URS	San Luis Drainage Feature Re-evaluation 17324004	Drainage Study Area	Figure 2-1