



# THE SAN JOAQUIN RIVER



DISCUSSION PURPOSES ONLY

CALIFORNIA STATE LANDS COMMISSION



## OVERVIEW OF THE CALIFORNIA STATE LANDS COMMISSION PRESENTATION

- California State Lands Commission (CSLC)
- Sovereign Lands and the Public Trust
- CSLC involvement in the SJRRP
- Character of the Land and Ownership along the San Joaquin River
- Natural v. Artificial v. Avulsion relationship to property boundaries
- Compilation Plats produced by CSLC
- Next Step

# CALIFORNIA STATE LANDS COMMISSION

- CSLC created in 1938
- The California State Lands Commission has three members:
  - Lieutenant Governor  
Gavin Newsom
  - State Controller  
John Chiang
  - Director of Finance  
Ana J. Matosantos



# JURISDICTION AND OWNERSHIP



- Sovereign Lands
- School Lands
- Civil Code 830 defines State and private ownership
- CSLC leases lands to the public and government agencies
- CSLC does not regulate water rights
- CSLC is a landowner on behalf of the State

# PUBLIC TRUST AND SOVEREIGN OWNERSHIP



## HISTORY

### ■ Roman Civil Law

The air, the rivers, the sea and the seashore were incapable of private ownership; they were dedicated to the use of the public.

--*Institutes of Justinian, 534 CE*

### ■ English Common Law

The sovereign held the tide and submerged lands, not in a proprietary capacity, but as trustee of a public trust for the benefit of the people of the realm.

--*Magna Carta, 1215*

California received title to sovereign lands at statehood under the **Equal-Footing Doctrine**.



# SOVEREIGN LANDS (fee owned)



- Non-tidal navigable rivers and lakes—lands below low water
- All lands subject to the tides below mean high water
- Illinois Central Railroad Co. v. Illinois (1892) U.S. Supreme Court ruled the State cannot convey State sovereign lands into private ownership

# PUBLIC TRUST LANDS (easement)



- Non-tidal navigable rivers and lakes—lands between high and low water

- Confirmed in 1981 by The State Supreme Court
  - State of California v. Superior Court (Lyon) 29 Cal. 3d 210
  - State of California v. Supreme Court (Fogerty) 29 Cal. 3d 240



# CSLC AND THE SJRRP



- CSLC is NOT a party to the settlement
- CSLC has an ownership in the bed of the San Joaquin River up to the head of navigation, near Friant
- USBR and DWR requested CSLC to determine State interest within the San Joaquin River







## CHARACTER OF LAND AND OWNERSHIP ALONG THE SAN JOAQUIN RIVER

- Sovereign Land below Low Water
- Public Trust land  
between Low Water and High Water
- Swamp and Overflowed Lands
- Public Land – Sectionalized Land
- Rancho Land – Mexican Land Grant

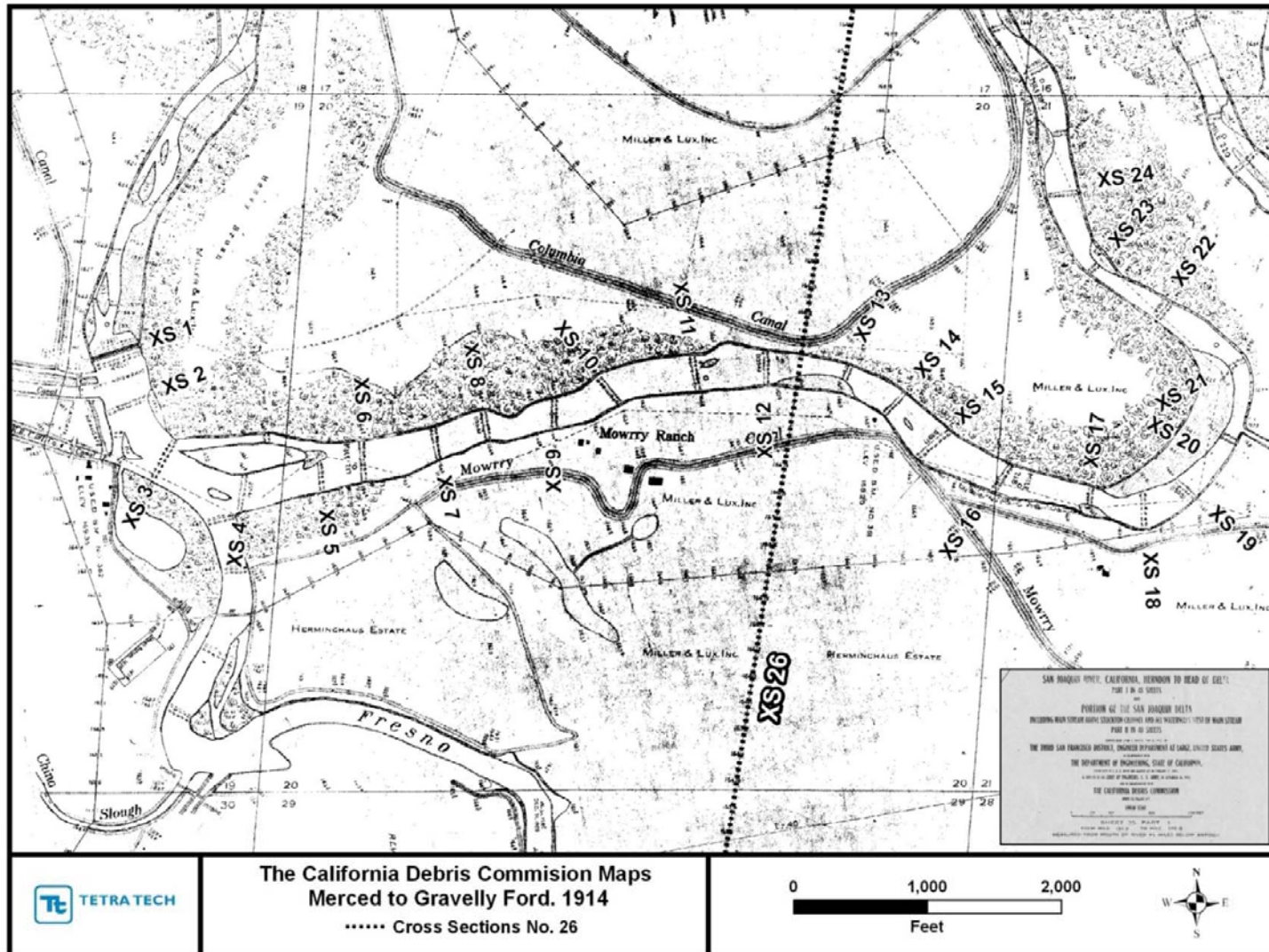
# HIGH WATER LINE



- Not a line reached by floods
- A line where erosion occurs; change in or lack of vegetation
- May relate to bank full level on many rivers
- Best evidence and application of case law

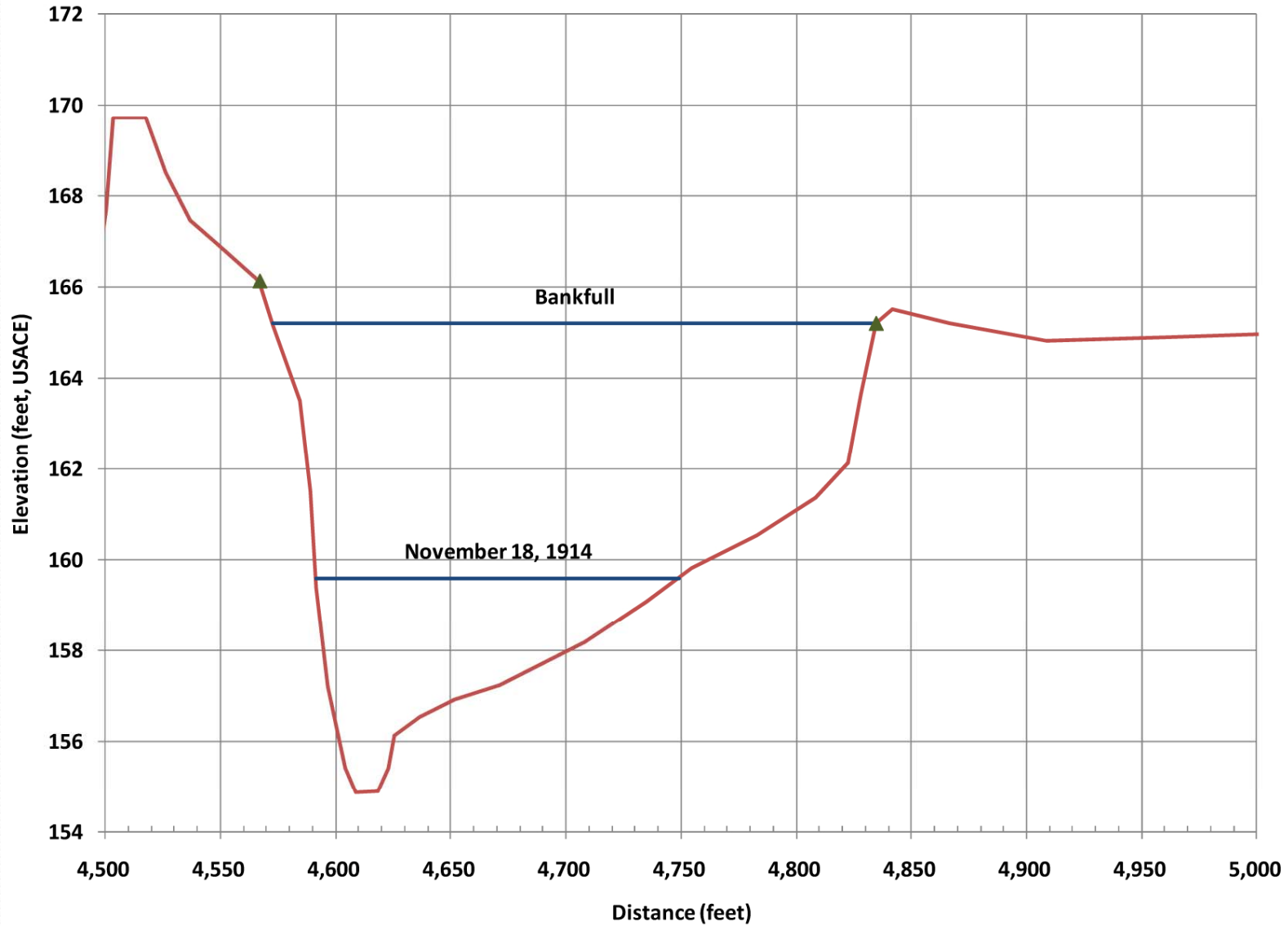
# HIGH WATER FLOW ANALYSIS

## PLAN VIEW OF BANK FULL CROSS SECTION



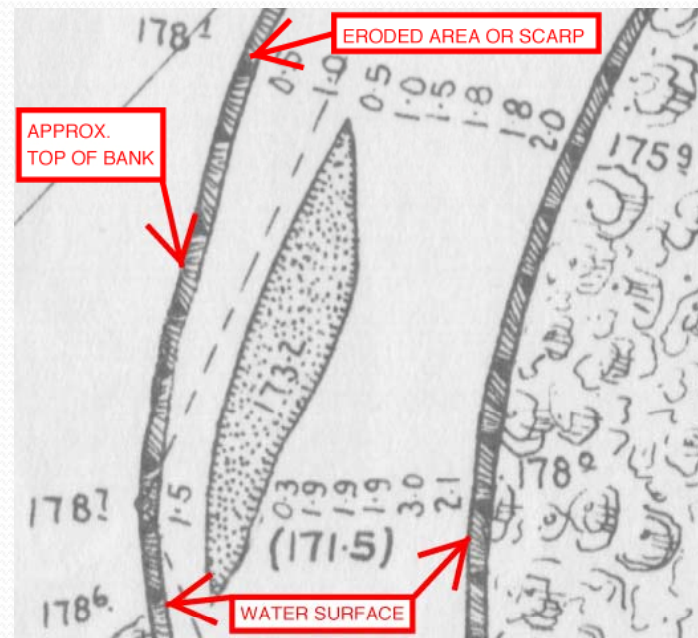
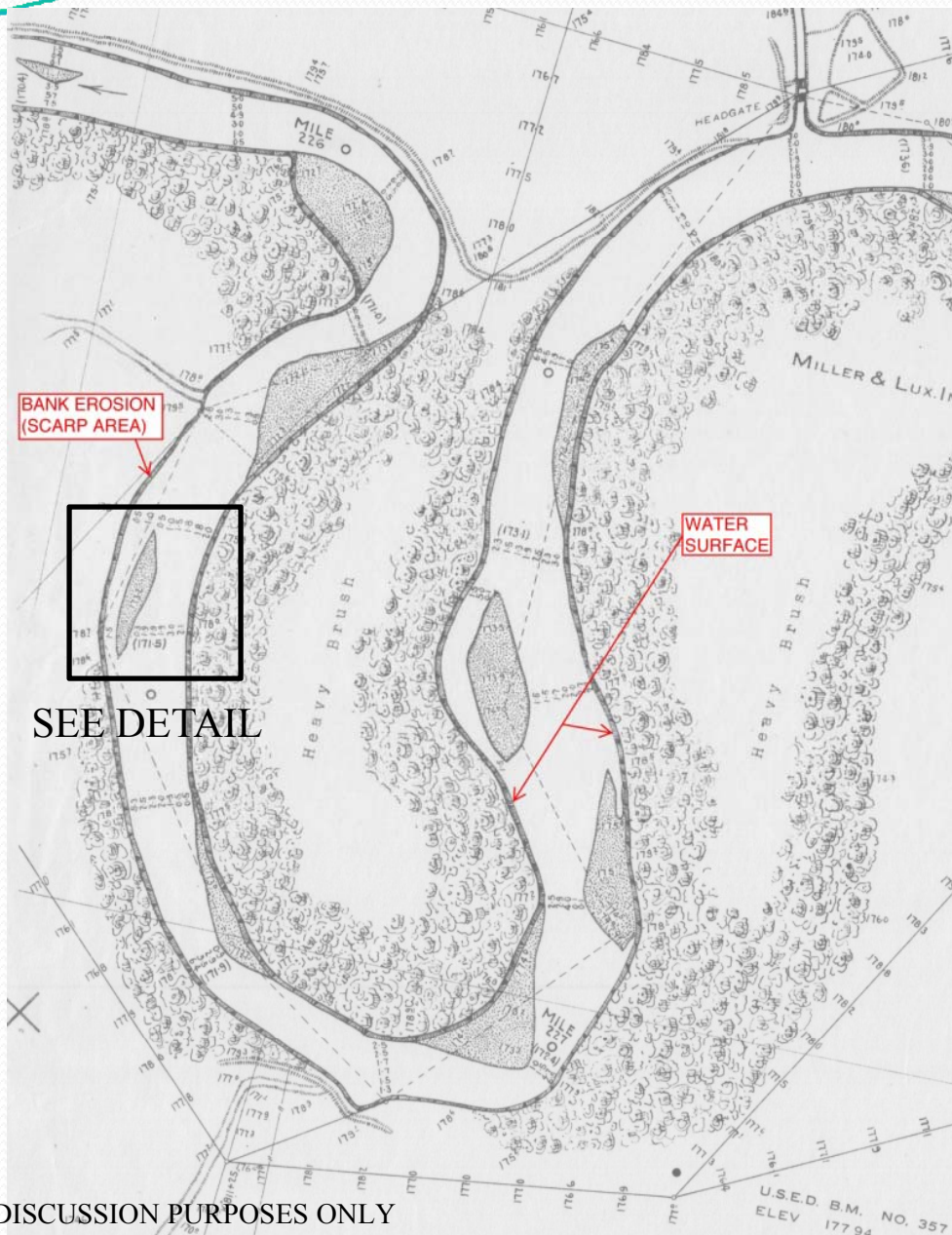
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# BANK FULL CROSS SECTION AT XS29



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# HIGH WATER PHYSICAL FEATURES GEOMORPHOLOGY



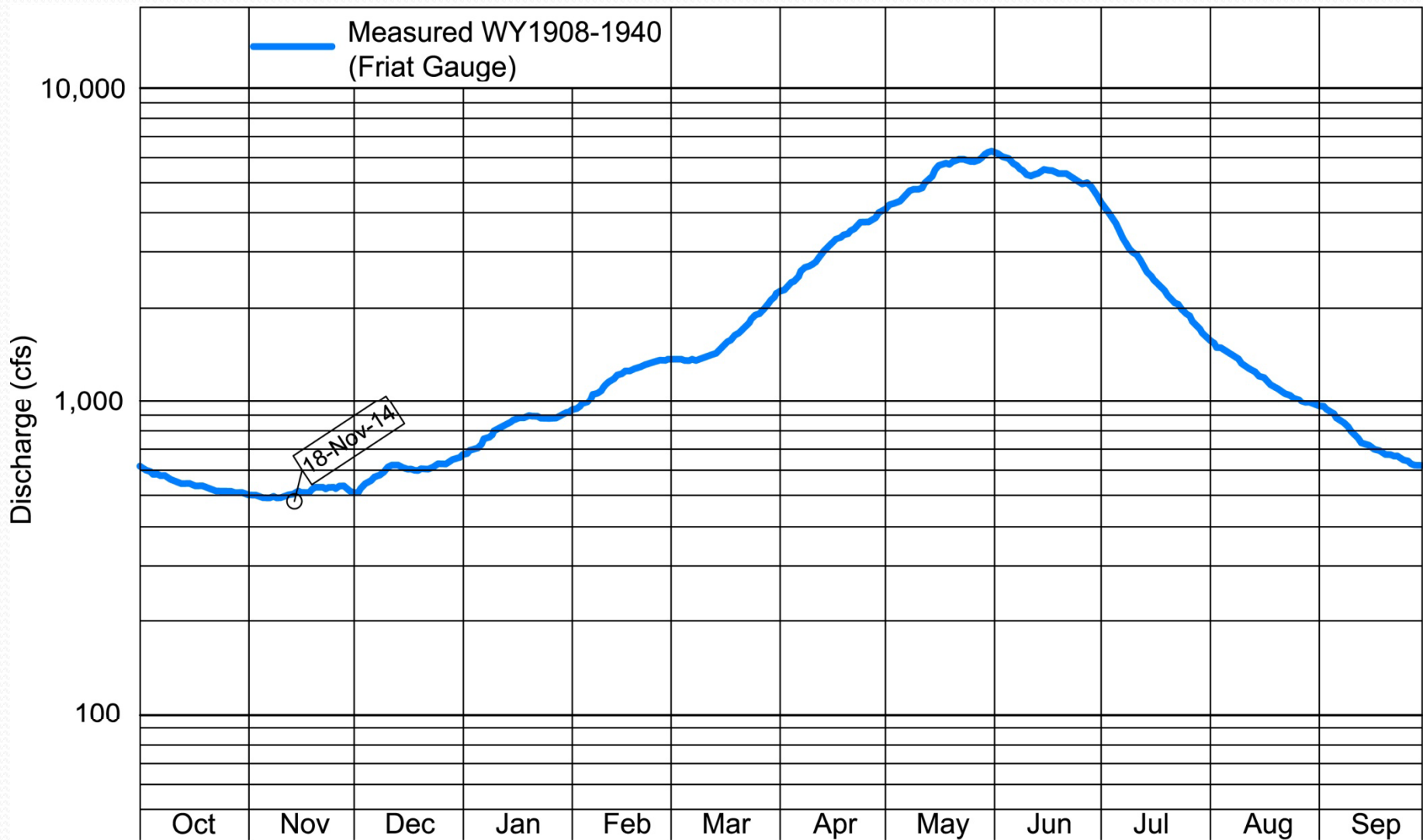
DETAIL



## LOW WATER LINE

- Covered by water most the year
- Low Water occurs during the Fall season
- Low Water should be determined during a **normal** water year
- Low Water determination should exclude years of droughts or floods
- Difficult to use physical or geomorphic features

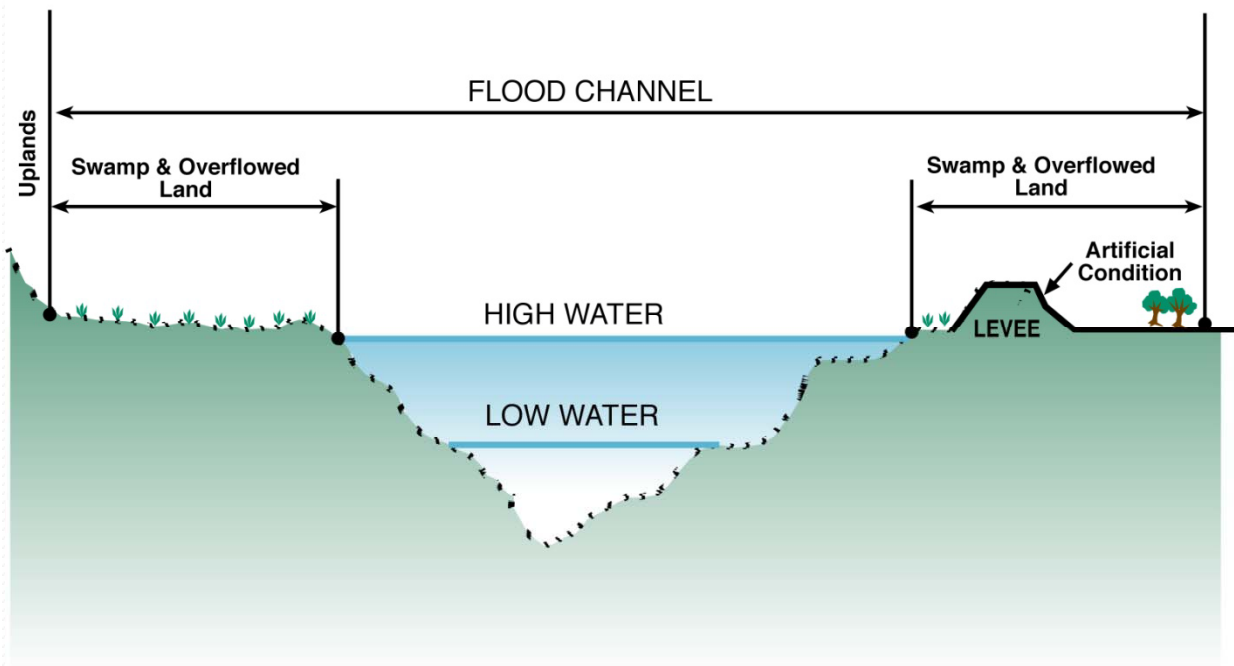
# LOW WATER -- NORMAL LOW WATER YEAR WATER SURFACE DURING THE FALL SEASON



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# SWAMP AND OVERFLOWED LAND

NON TIDAL NAVIGABLE RIVER



- Lands above high water
- Patented to the State by the Federal government
- Surveyed by County Surveyors and sold by the State





# NATURAL v. ARTIFICIAL v. AVULSION

## RELATIONSHIP TO PROPERTY BOUNDARIES

### RIVER IN A NATURAL STATE

- Boundaries between the upland owner and State are ambulatory and will move as the river moves
- Can have limited artificial influences
- Artificial influences cannot be primary or proximate



# NATURAL v. ARTIFICIAL v. AVULSION

## RELATIONSHIP TO PROPERTY BOUNDARIES

### RIVER IN AN ARTIFICIAL STATE

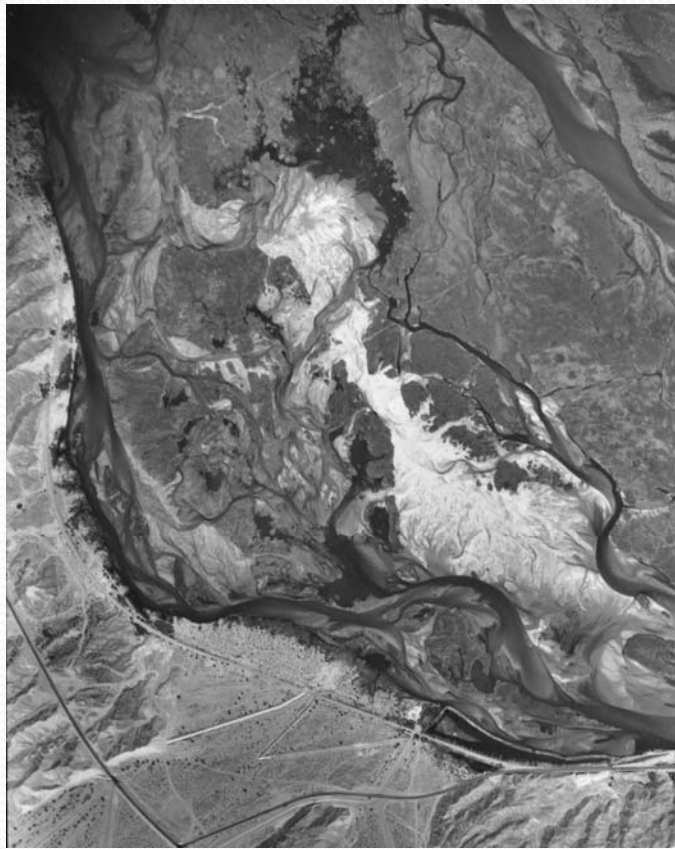
- Boundaries may remain fixed at the last natural location
- Artificial influences must be primary or proximate
- Dredging new river channel
- Filling of river bed
- Damming and significant removal of water from the natural channel

# NATURAL v. ARTIFICIAL v. AVULSION

## RELATIONSHIP TO PROPERTY BOUNDARIES

### RIVER IN AN ARTIFICIAL STATE

#### Colorado River



1947

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1953

# NATURAL v. ARTIFICIAL v. AVULSION

RELATIONSHIP TO PROPERTY BOUNDARIES  
RIVER IN AN ARTIFICIAL STATE

## Dam construction and major water diversion



Friant Dam, San Joaquin River

# NATURAL v. ARTIFICIAL v. AVULSION

## RELATIONSHIP TO PROPERTY BOUNDARIES

### RIVER IN AN ARTIFICIAL STATE

## Dam construction and major water diversion



- Up to 90% of water diverted from the river
- State would not be deprived of its sovereign ownership



# NATURAL v. ARTIFICIAL v. AVULSION

## RELATIONSHIP TO PROPERTY BOUNDARIES

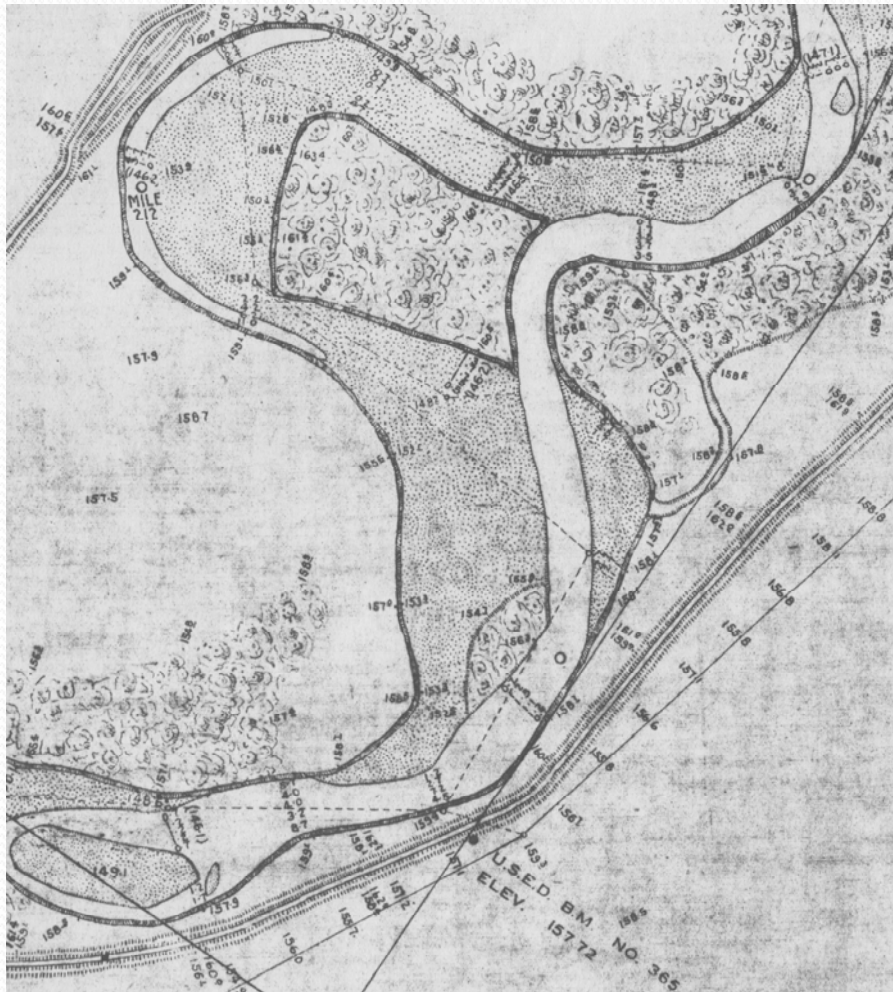
### AVULSIVE RIVER CHANGES

- Sudden and perceptible change in a water course
- May add or remove land
- May fix riparian boundaries

# NATURAL v. ARTIFICIAL v. AVULSION

## RELATIONSHIP TO PROPERTY BOUNDARIES

### RIVER POSSIBLY AFFECTED BY AVULSION



- Sudden and perceptible change in the water course

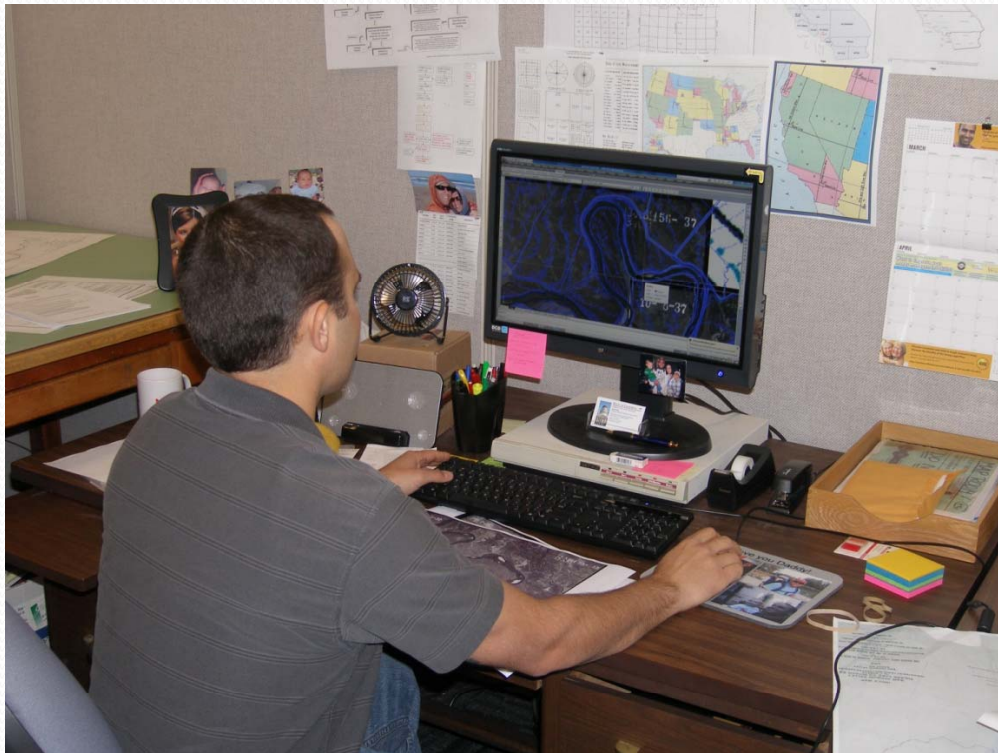
OR

- Manmade dredger cut

# CSLC

## THE SAN JOAQUIN RIVER RESTORATION PROJECT

Contract with DWR began on April 15, 2010



- RESEARCH INCLUDED:
- U.S. Army Corps of Engineers
- U.S. National Archives
- U.S. Bureau of Reclamation
- U.S. Bureau of Land Management (General Land Office)
- California State Archives
- California Department of Water Resources
- County Surveyor Offices, Fresno and Madera Counties
- County Recorder's Offices, Fresno and Madera Counties
- Local water and irrigation districts
- Records of the CSLC
- Miller Lux Museum
- Historical Societies and Libraries



# CSLC

## THE SAN JOAQUIN RIVER RESTORATION PROJECT



- FIELD SURVEYS:
- Reach 4B1, February – April 2011
- Other Reaches are ongoing



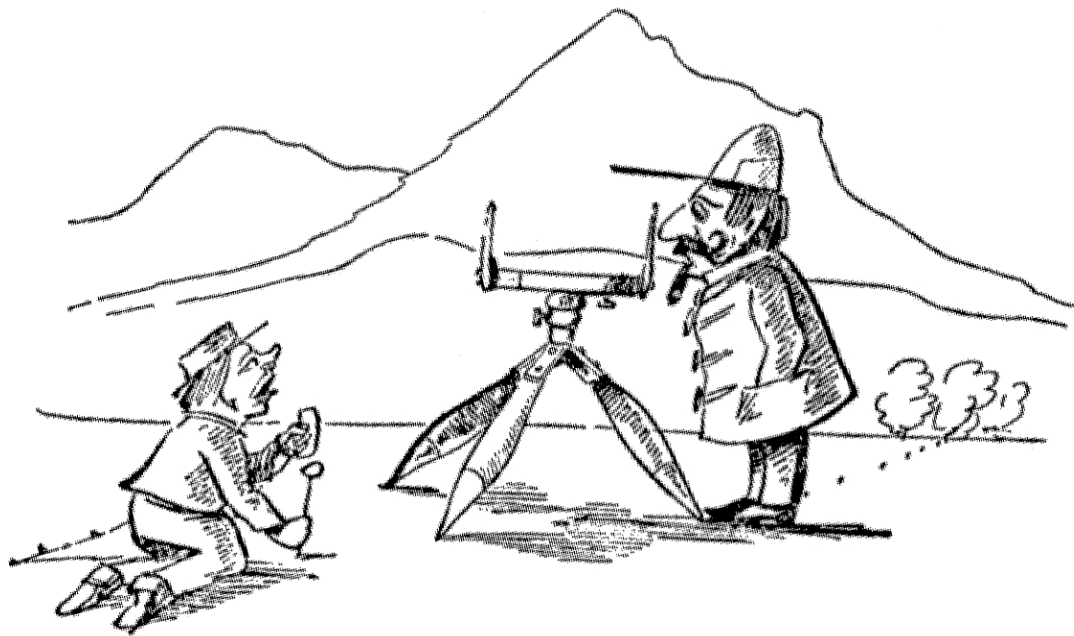
DISCUSSION PURPOSES ONLY

# LAND TITLE AND MAPPING ADJACENT TO THE SAN JOAQUIN RIVER REACH 4B1



**REACH 4B1**  
**SAN JOAQUIN RIVER RESTORATION PROJECT, REACH 4B1**  
**MARIPOSA DROP STRUCTURE TO SAND SLOUGH CONNECTOR**

# GENERAL LAND OFFICE TOWNSHIP PLATS 1854 TO 1861

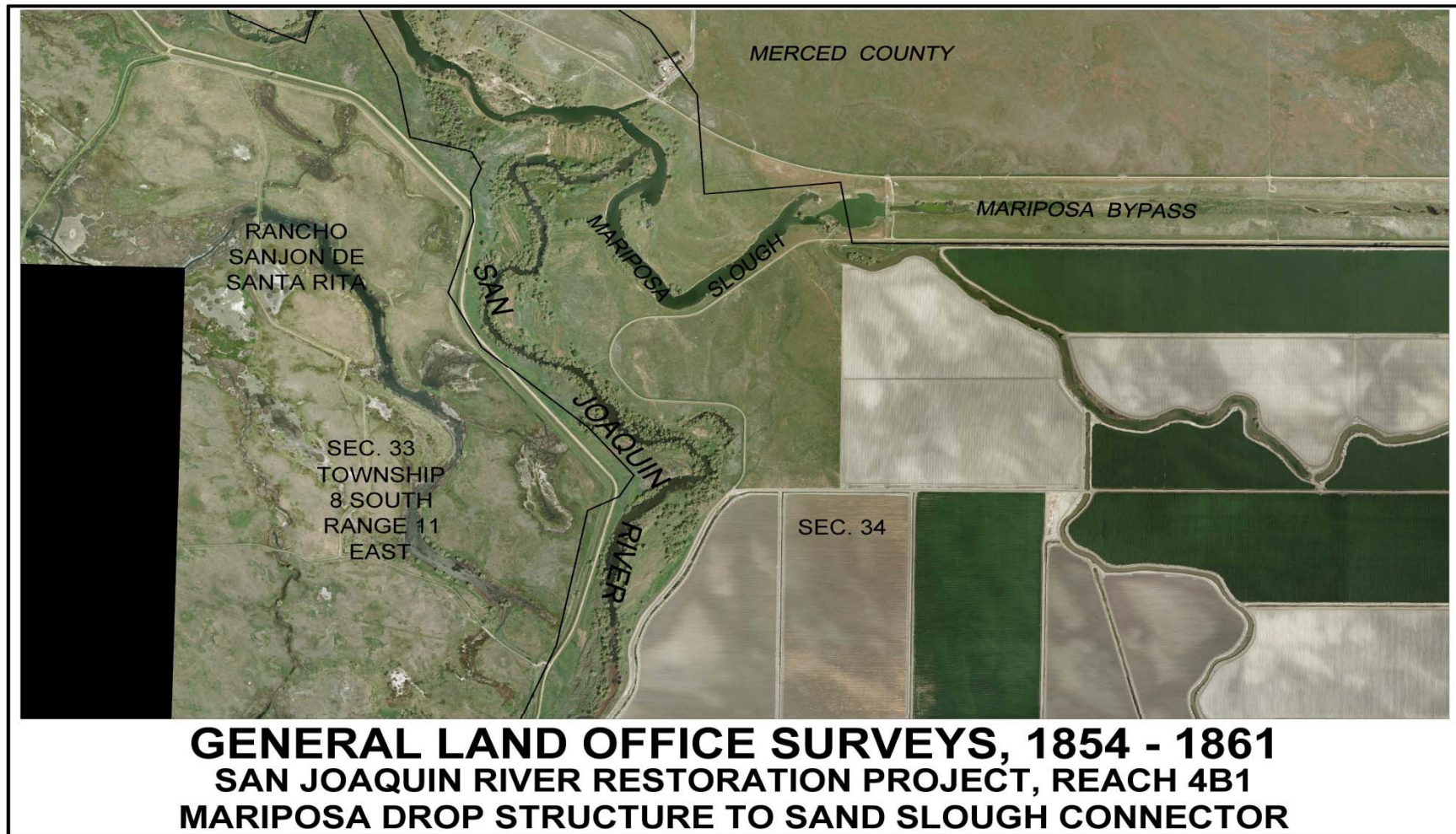


*Andrew Gray surveyeth ye  
Boundary its time!*

- Survey of Public Lands for sale by the U.S.
- Surveyed in one mile square sections
- 1851 and 1855 GLO Manual of Instruction
  - Meander of Survey Bank of Navigable Rivers
  - Show all lands “Unfit for Cultivation” known as Swamp and Overflowed Lands



# CSLC REACH 4B1 COMPILATION PLAT MARIPOSA SLOUGH AREA GENERAL LAND SURVEY



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# SWAMP AND OVERFLOWED SURVEYS 1860 – 1902

The State Surveyor General's instructions to the County Surveyor was to follow the instruction issued by the Government Land Office (GLO) when surveying S&O lands.

*all of the swamp and overflowed land in 8000 of acres on Right Bank of S. pr. R.*

**COUNTY SURVEYOR'S OFFICE,**  
*Fresno* COUNTY, CAL.

**SWAMP AND OVERFLOWED LANDS.**  
Survey No. *552*  
Township *13 North*  
Range *15 East*  
Section *16* Tract in the *SW 1/4*

Sec. No. <i>16</i>	Sec. No. ....
Sec. No. ....	Sec. No. ....

Base and Meridian of Mount Diablo.  
Containing *44.47* Acres,  
Surveyed October *4<sup>th</sup>* 1869  
for *Henry Miller*

**FIELD NOTES.**

Beginning at the *Meridian* post set by the *U. S. Survey* 4 8. 20 chs. due South of the corner to Sections 8, 9, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

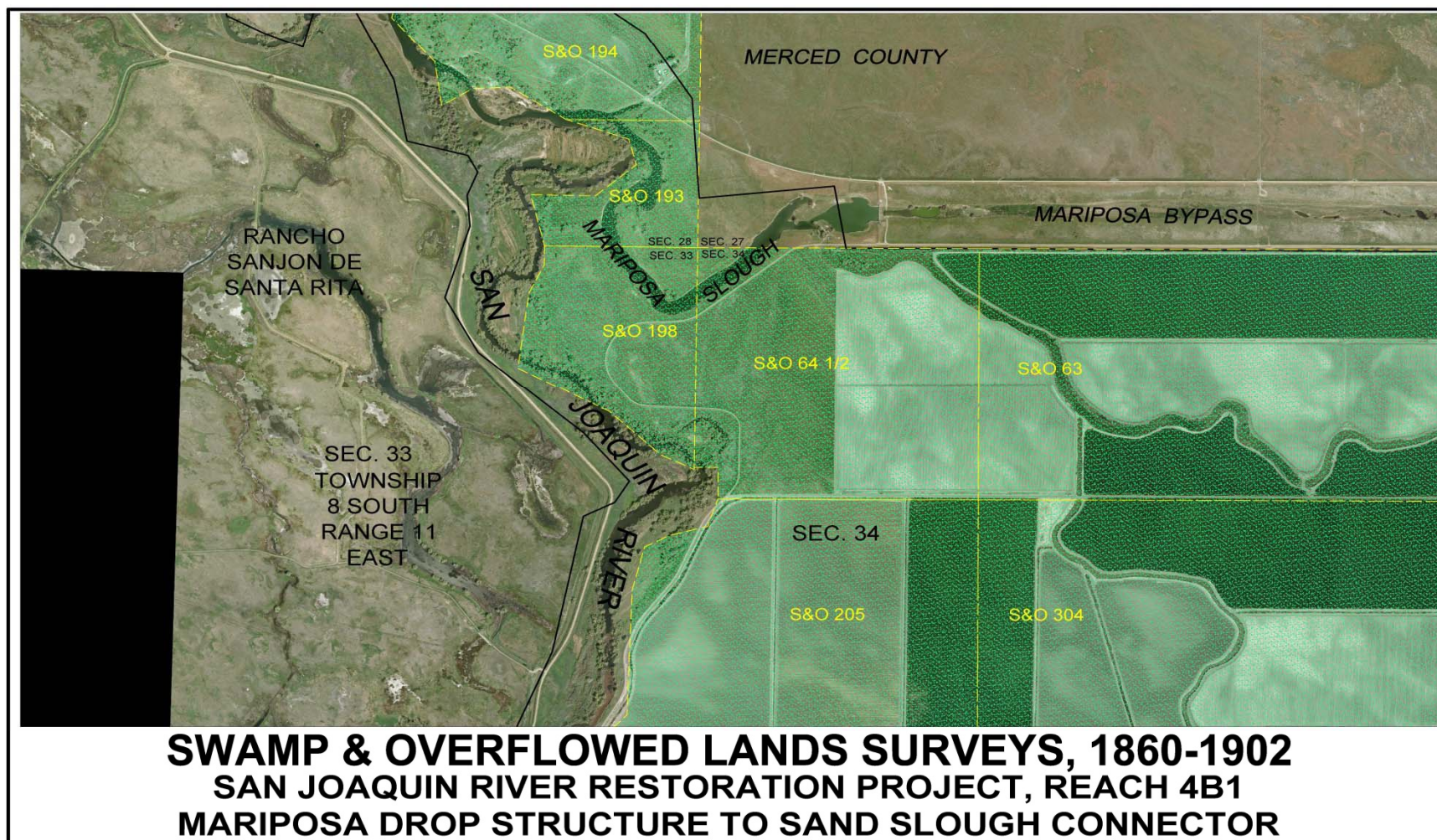
Run by the true Meridian. Magnetic Variation *16* " *45* " East.  
Surveyed in accordance with the Act of the Legislature concerning State Lands, approved March 28th, 1868, and the instructions of the Surveyor-General.

*J. C. Walker*  
County Surveyor of *Fresno* County.

Certified to be a correct copy of the original record in my office.

*J. C. Walker*  
County Surveyor of *Fresno* County.

# CSLC REACH 4B1 COMPILATION PLAT MARIPOSA SLOUGH AREA SWAMP AND OVERFLOWED LAND SURVEYS

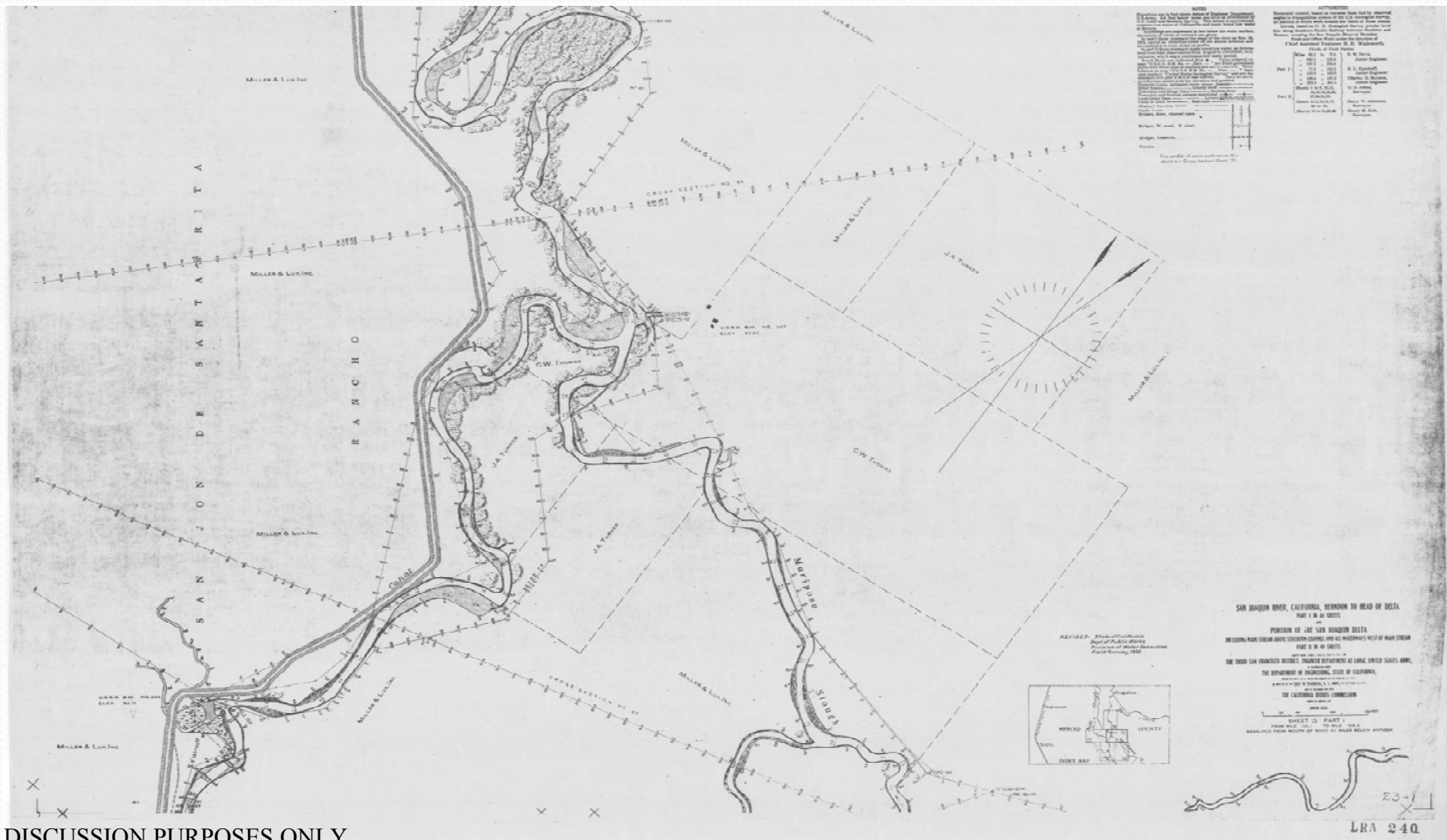


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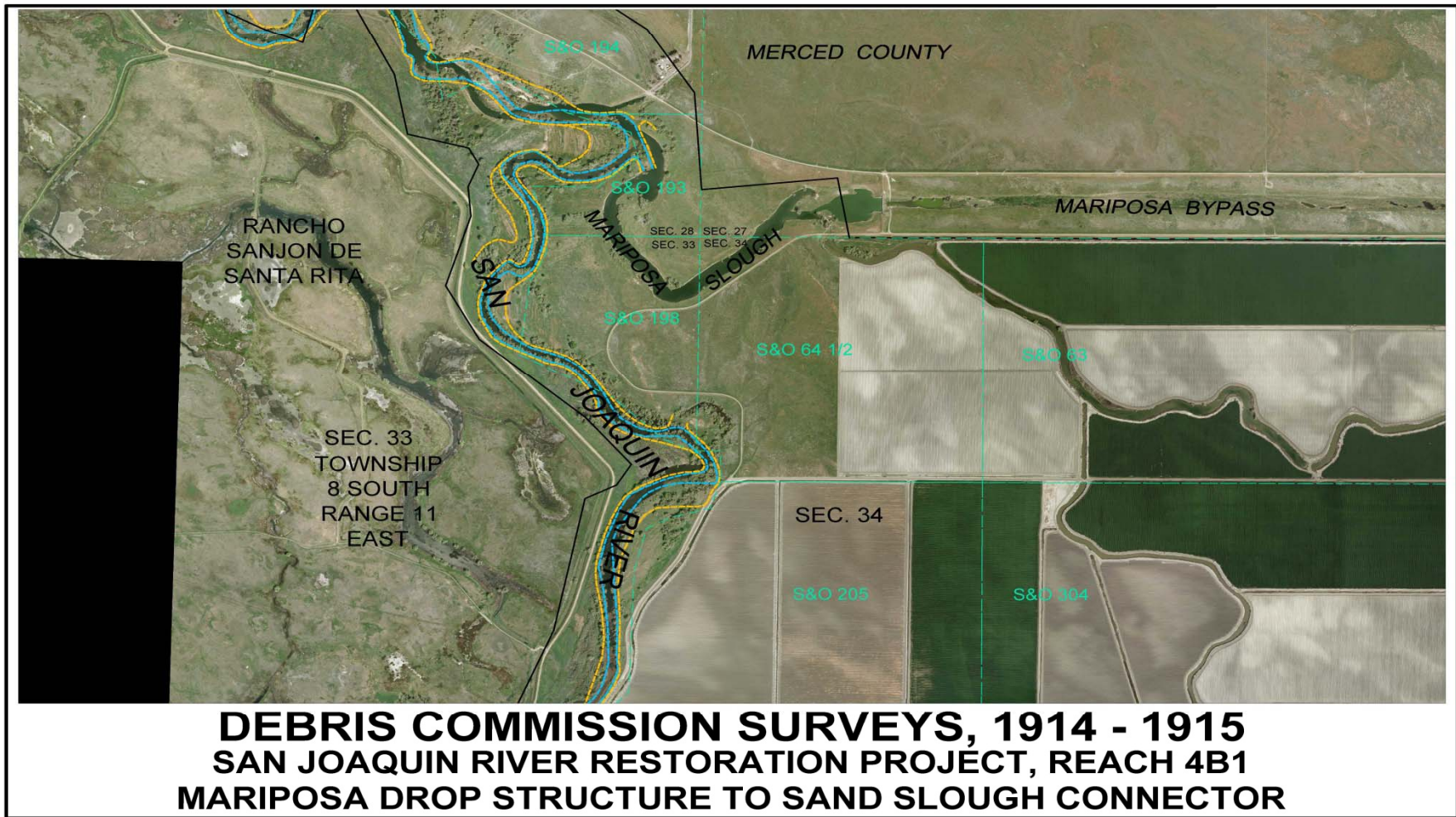


# CALIFORNIA DEBRIS COMMISSION MAPPING 1914



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# CSLC REACH 4B1 COMPILATION PLAT MARIPOSA SLOUGH AREA 1914 CDC MAPPING

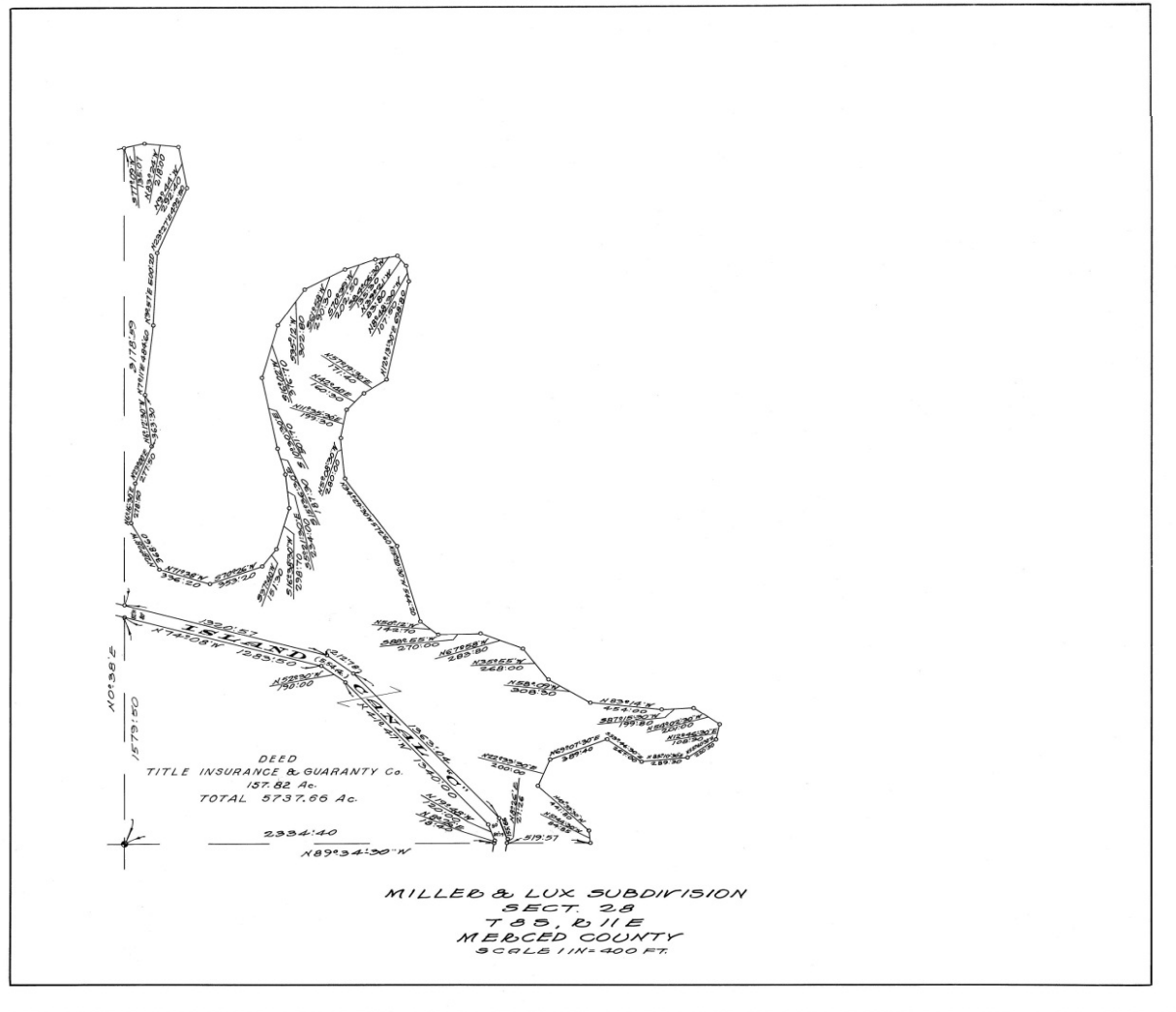


DISCUSSION PURPOSES ONLY

# MILLER LUX PLATS 1920s –1930s

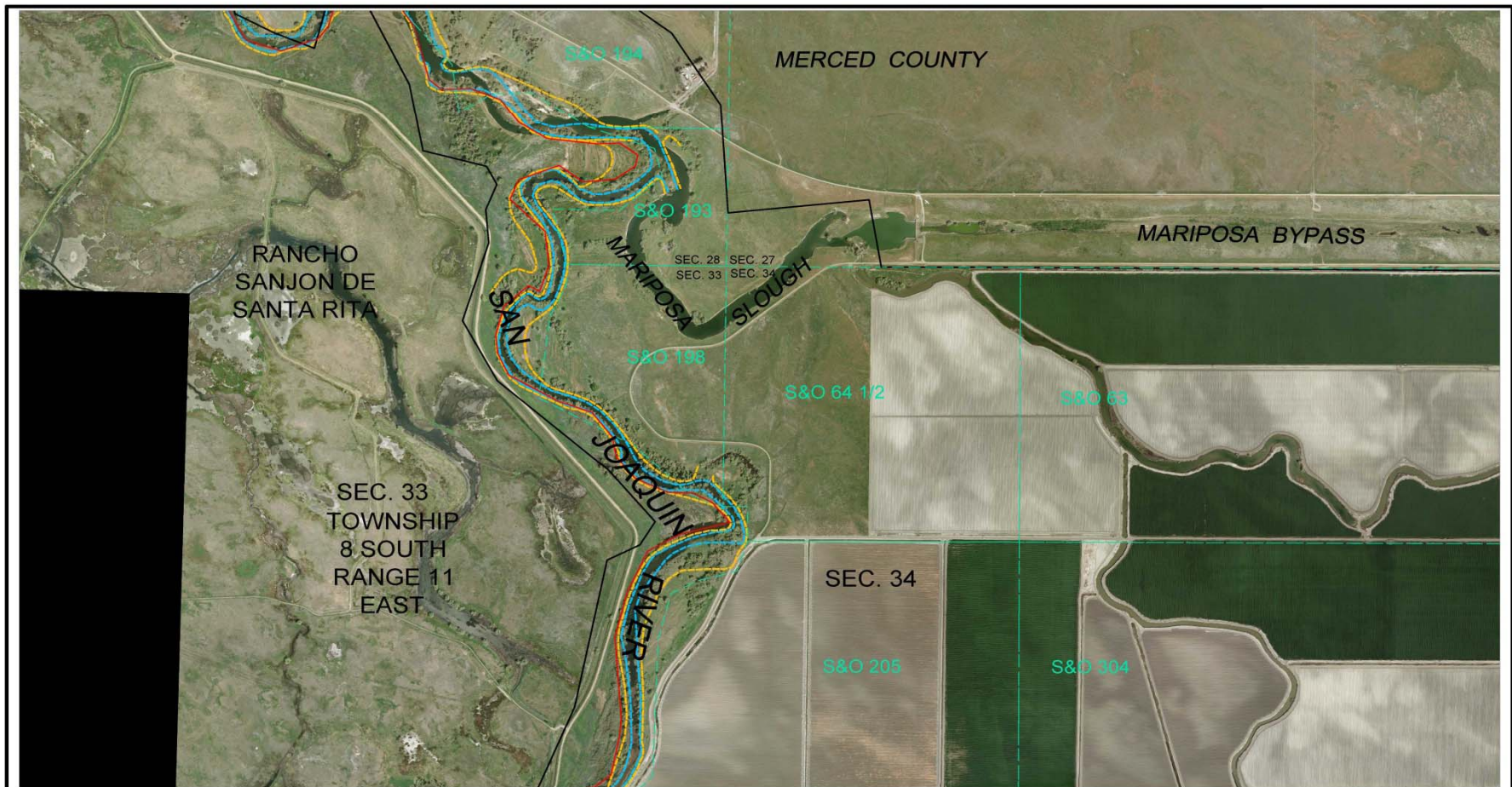


4" x 4"  
Redwood post  
Original monument?



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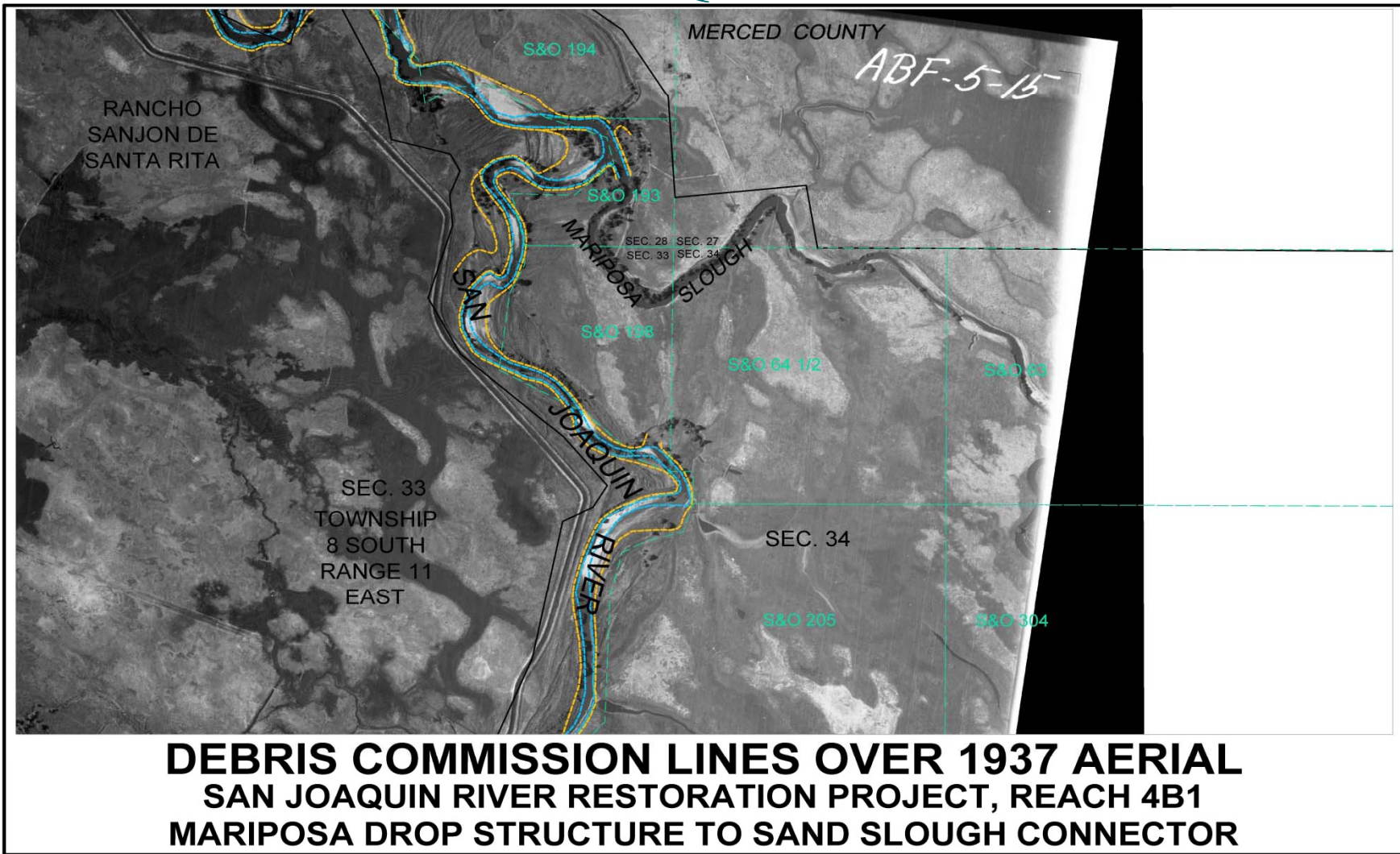
# CSLC REACH 4B1 COMPILATION PLAT MARIPOSA SLOUGH AREA



**MILLER & LUX SURVEYS, 1920s, 1930s (?)**  
**SAN JOAQUIN RIVER RESTORATION PROJECT, REACH 4B1**  
**MARIPOSA DROP STRUCTURE TO SAND SLOUGH CONNECTOR**

# FAIRCHILD 1937 AERIAL PHOTOS

## SAN JOAQUIN RIVER



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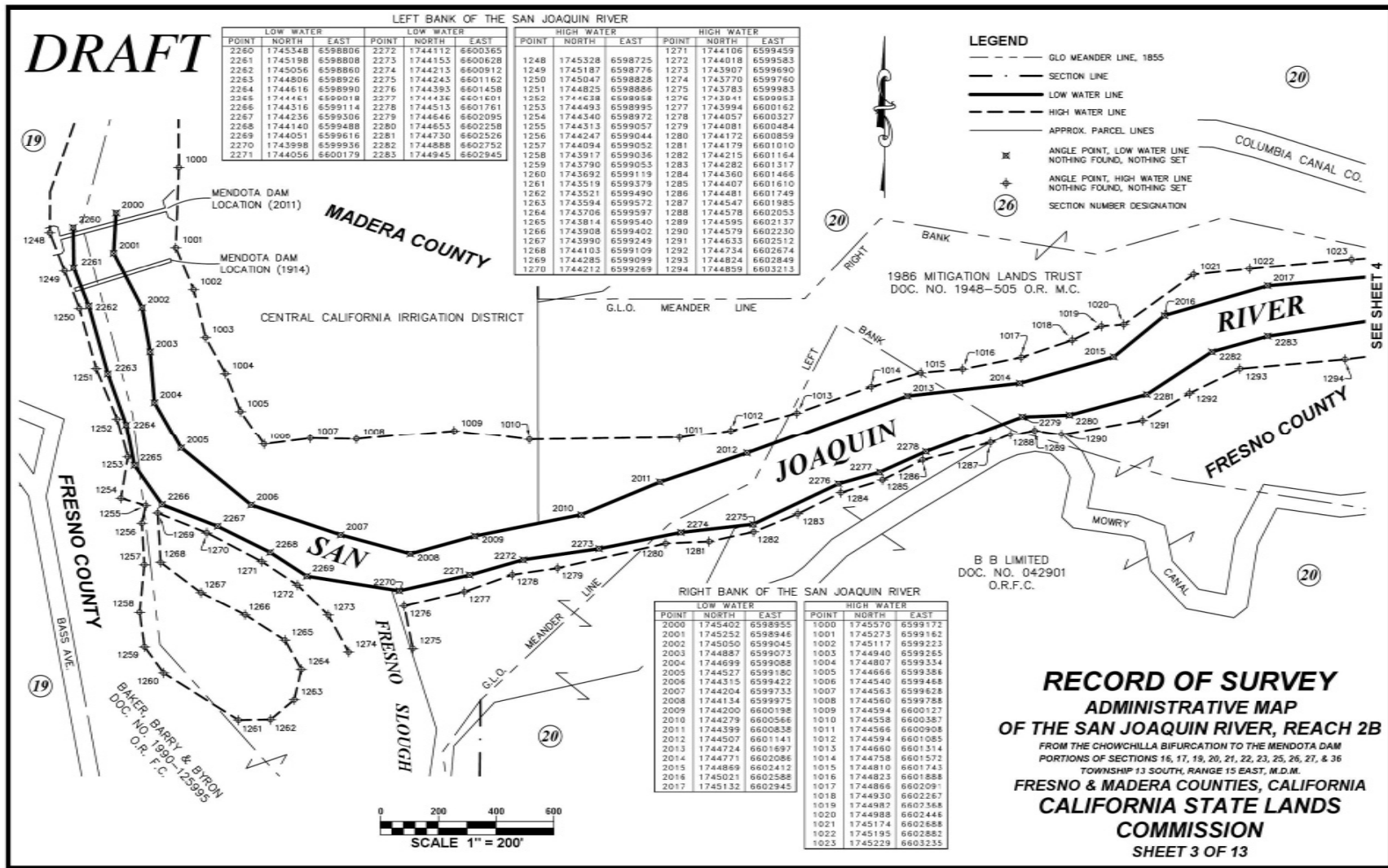


## NEXT STEP

# ADMINISTRATIVE MAPS

- Will show lines of the high water mark and of the low water mark based on the best available evidence
- Map form similar to a Record of Survey, per Land Surveyors Act (B&P Code §8765[a])
- Maps will be filed with the County Surveyors of each county affected
- Map content will be a continuation of Reach 2B Administrative Maps

# ADMINISTRATIVE MAP



DISCUSSION PURPOSES ONLY



## EFFECT AND USE OF LINES SHOWN ON THE ADMINISTRATIVE MAPS

- Basis of State claims of limits of sovereign ownership and Public Trust Easement
- Subject to change if better evidence is found by or presented to the CSLC
- Basis for Real Estate purchases, Exchanges and Boundary Line Agreements
- Basis for CSLC Leases
- CSLC may exercise the Public Trust Easement rights
  - Commissioners must vote at a public meeting