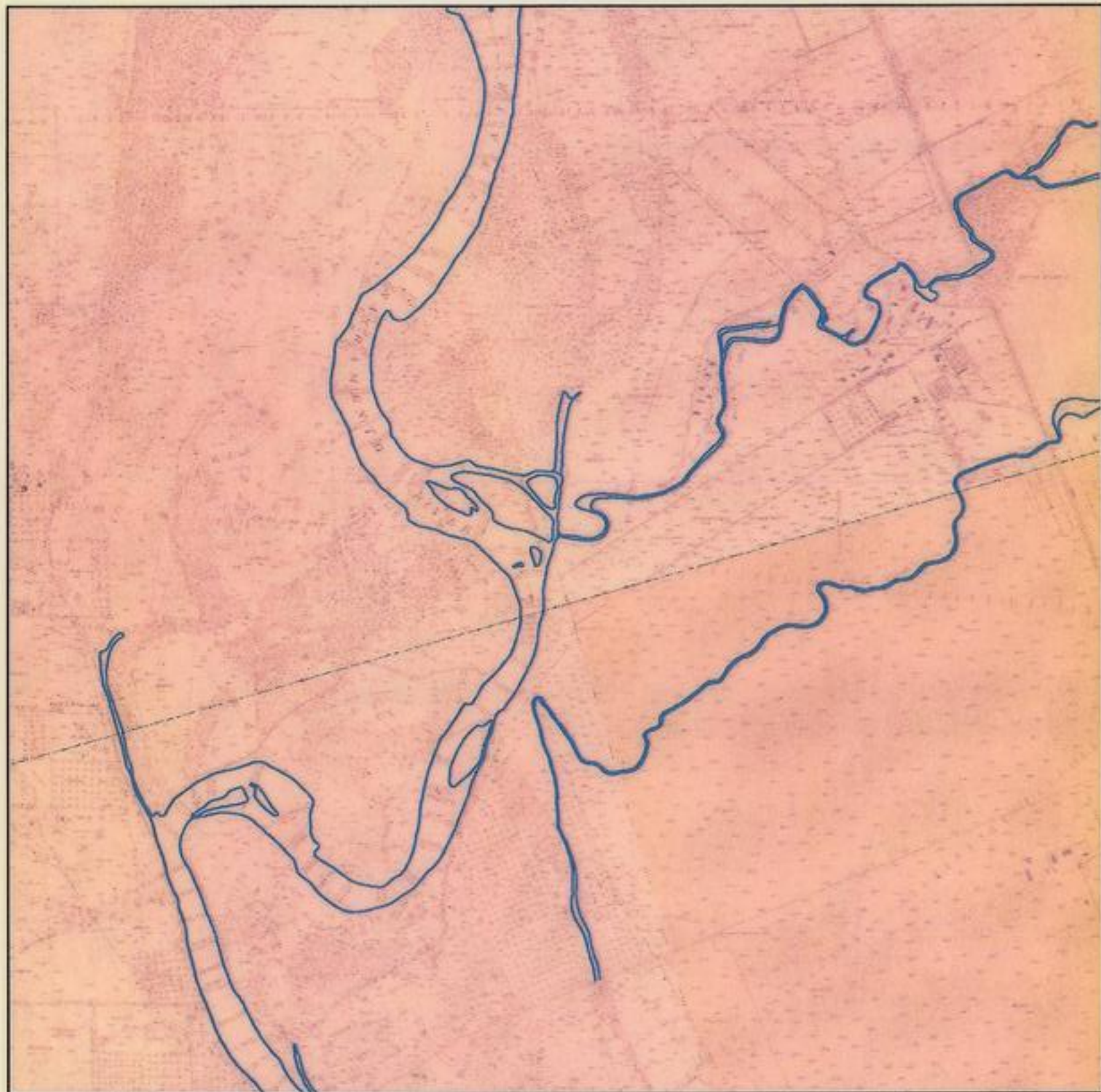


Sacramento River (circa 1923) From Red Bluff to Chico Landing U.S. Army Corps of Engineers Map Base

By Jonathan Mulder
Certified Engineering Geologist #1352
California Department of Water Resources
Northern Region
Red Bluff, California
February, 2009



Sacramento River (circa 1923) From Red Bluff to Chico Landing U.S. Army Corps of Engineers Map Base

By Jonathan Mulder
Certified Engineering Geologist #1352
California Department of Water Resources
Northern Region
Red Bluff, California
February, 2009

Appreciation is expressed to Aric Lester and Adam Henderson (Environmental Services Section) for support and encouragement of this project.

Digital copies of this atlas, the map mosaics, raw scanned maps, and transformation files are available.

Contact:
Jonathan Mulder
mulder@water.ca.gov
530-528-7423

HOW TO USE THIS ATLAS

This document is designed to be printed on 11" x 17" paper in a two-sided format.

The left page map sheet displays 1923 U.S. Army Corp of Engineers map base.

The right page map sheet displays 2005 aerial imagery for the same area.

Red gridlines are placed at 1 degree intervals to facilitate locating features on both images.

Cover Figures: The two figures compare the area around Woodson Bridge and Kopta Slough between 1923 and 2005.

Sacramento River (circa 1923) From Red Bluff to Chico Landing U.S. Army Corps of Engineers Map Base

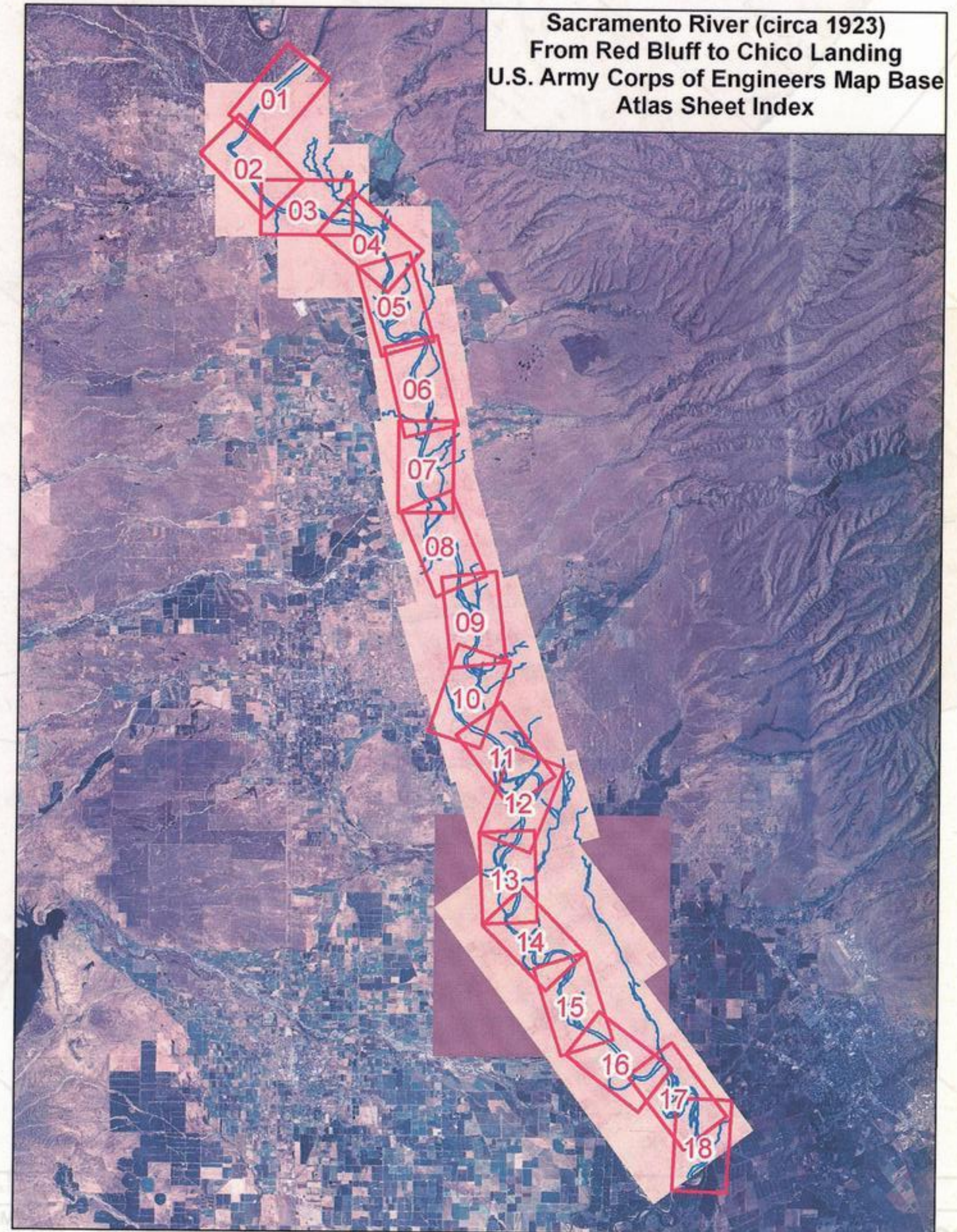
INTRODUCTION

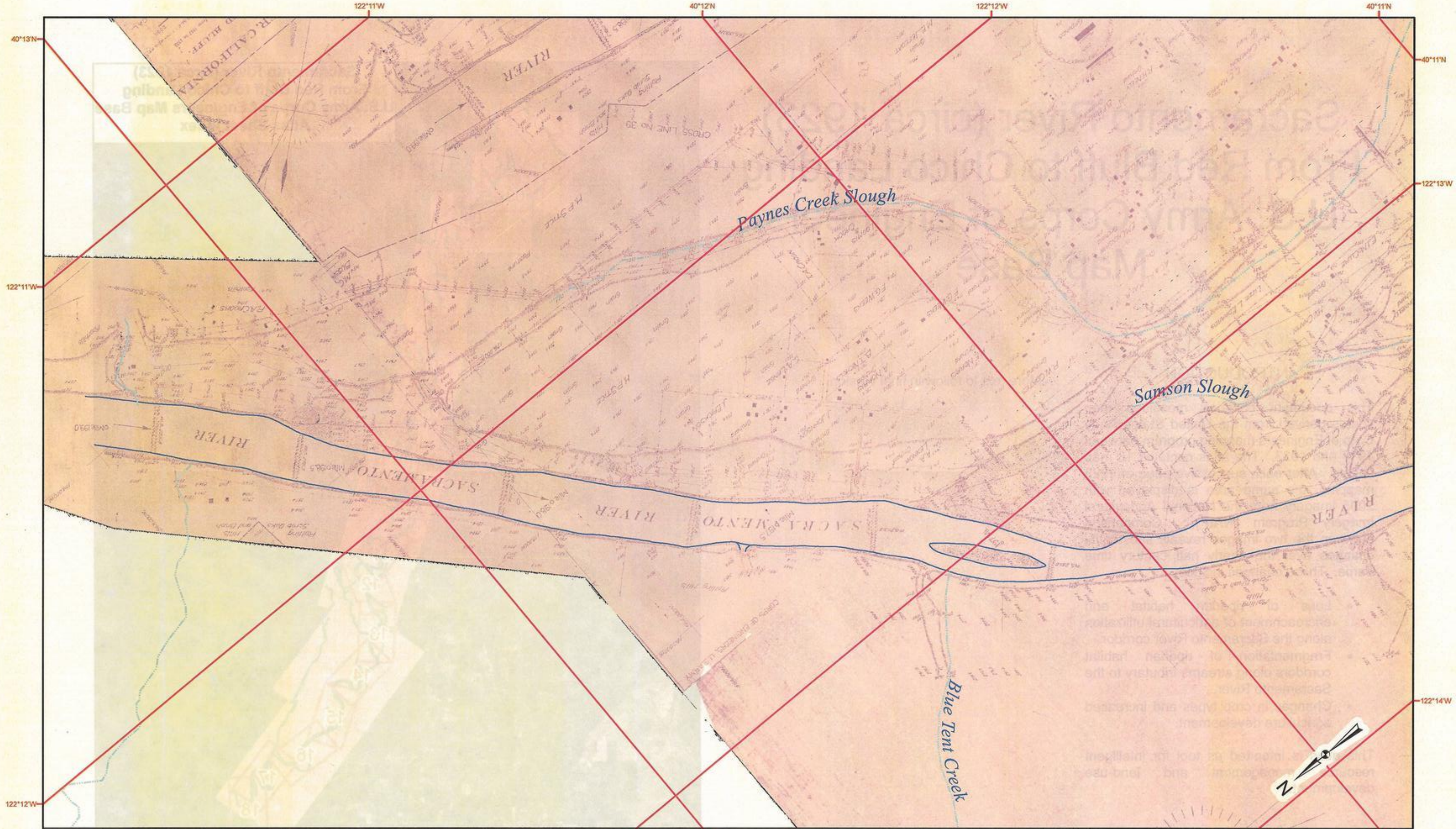
More text to follow in final version.

This document contains mosaiced map sheets derived from the United States Army Corp of Engineers mapping program between 1917 and 1923. The atlas contains 18 map sheets. After each successive page of 1923 mapping, the same area is displayed with 2005 imagery from the National Agricultural Imagery Program (NAIP). Comparison between the two images reveals substantial changes over the nearly half century time frame. These changes include:

- Loss of riparian habitat and encroachment of agricultural utilization along the Sacramento River corridor.
- Fragmentation of riparian habitat corridors along streams tributary to the Sacramento River.
- Changes in crop types and increased agriculture development.

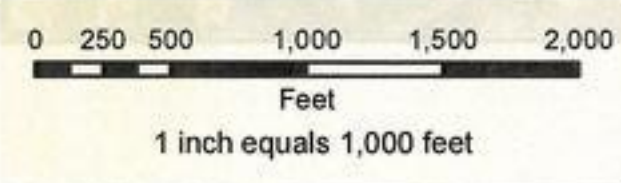
This atlas is intended as tool for intelligent resource management and land-use development.





Sheet #
01

Sacramento River
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base



Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
Dark blue line work denotes waters edge from Corp map.
Light blue line work denotes stream features from ESRI Street Maps

River Atlas created by:
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Red Bluff, California



Sheet #
01



Sheet #
01

Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

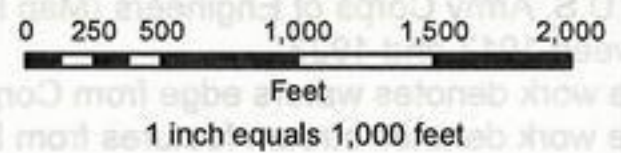
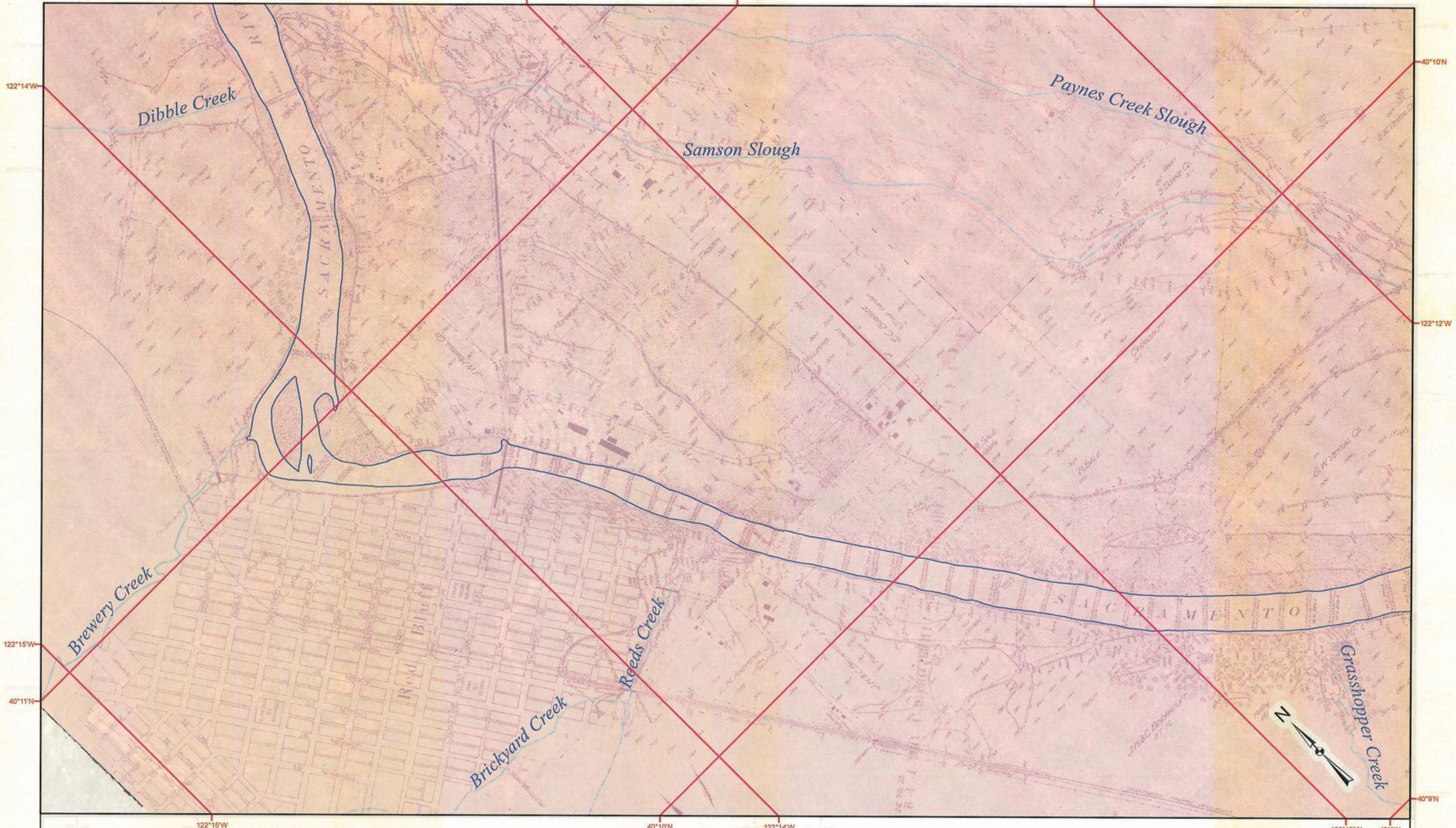


Photo Source: USDA National Agricultural Imagery Program (NAIP)
Dark blue line work denotes waters edge from 1923 Corp map.
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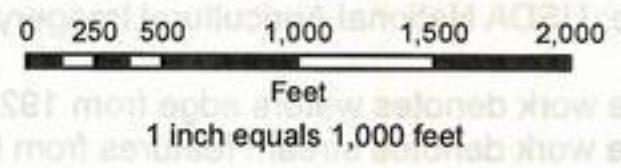


Sheet #
01



Sheet #
02

Sacramento River
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base



Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
Dark blue line work denotes waters edge from Corp map.
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Red Bluff, California



Sheet #
02



Sheet #
02

Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

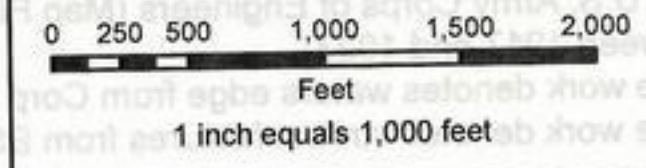
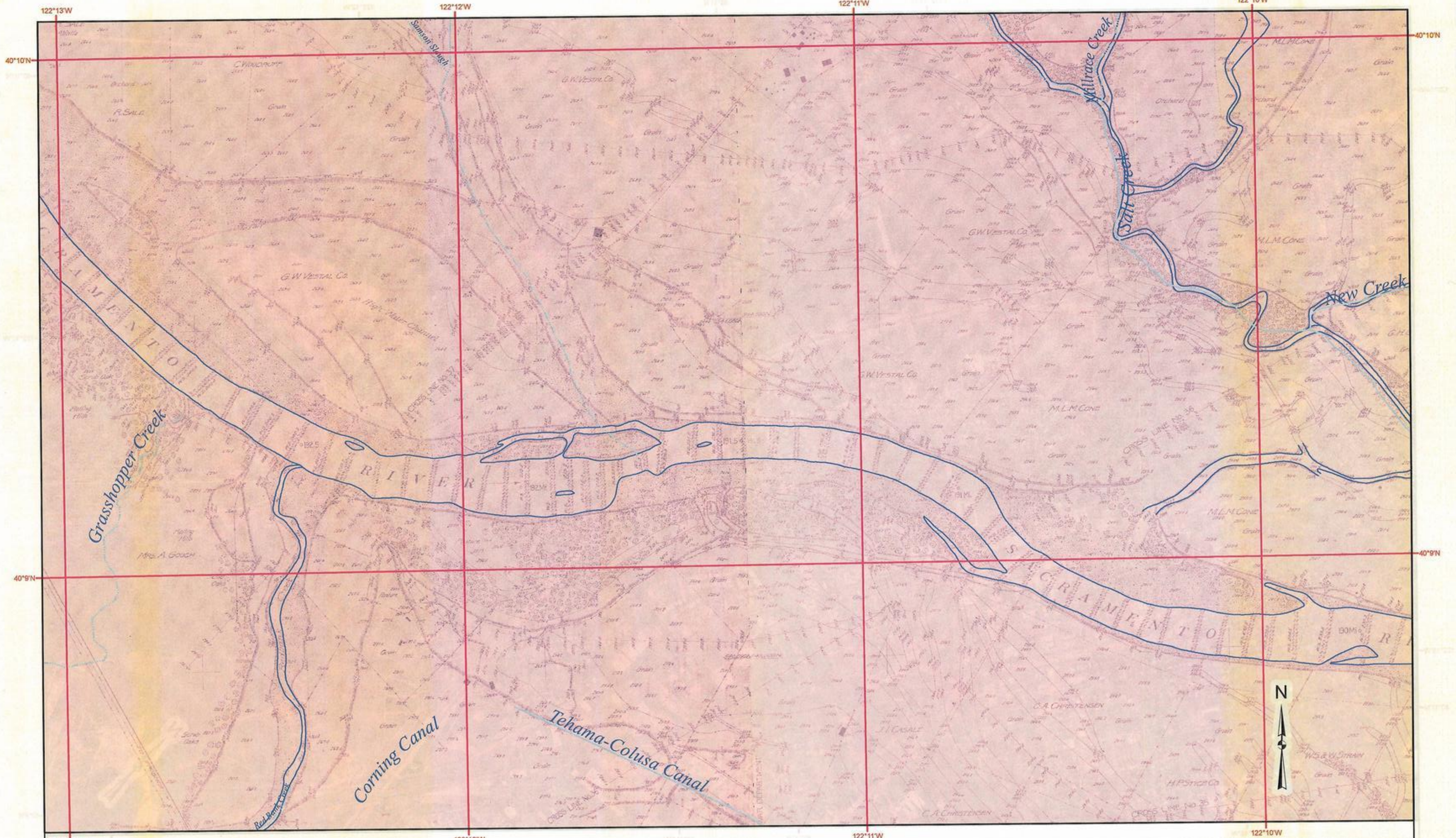


Photo Source: USDA National Agricultural Imagery Program (NAIP)
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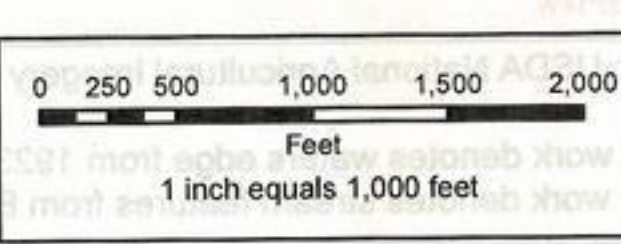


Sheet #
02



Sheet #
03

Sacramento River
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

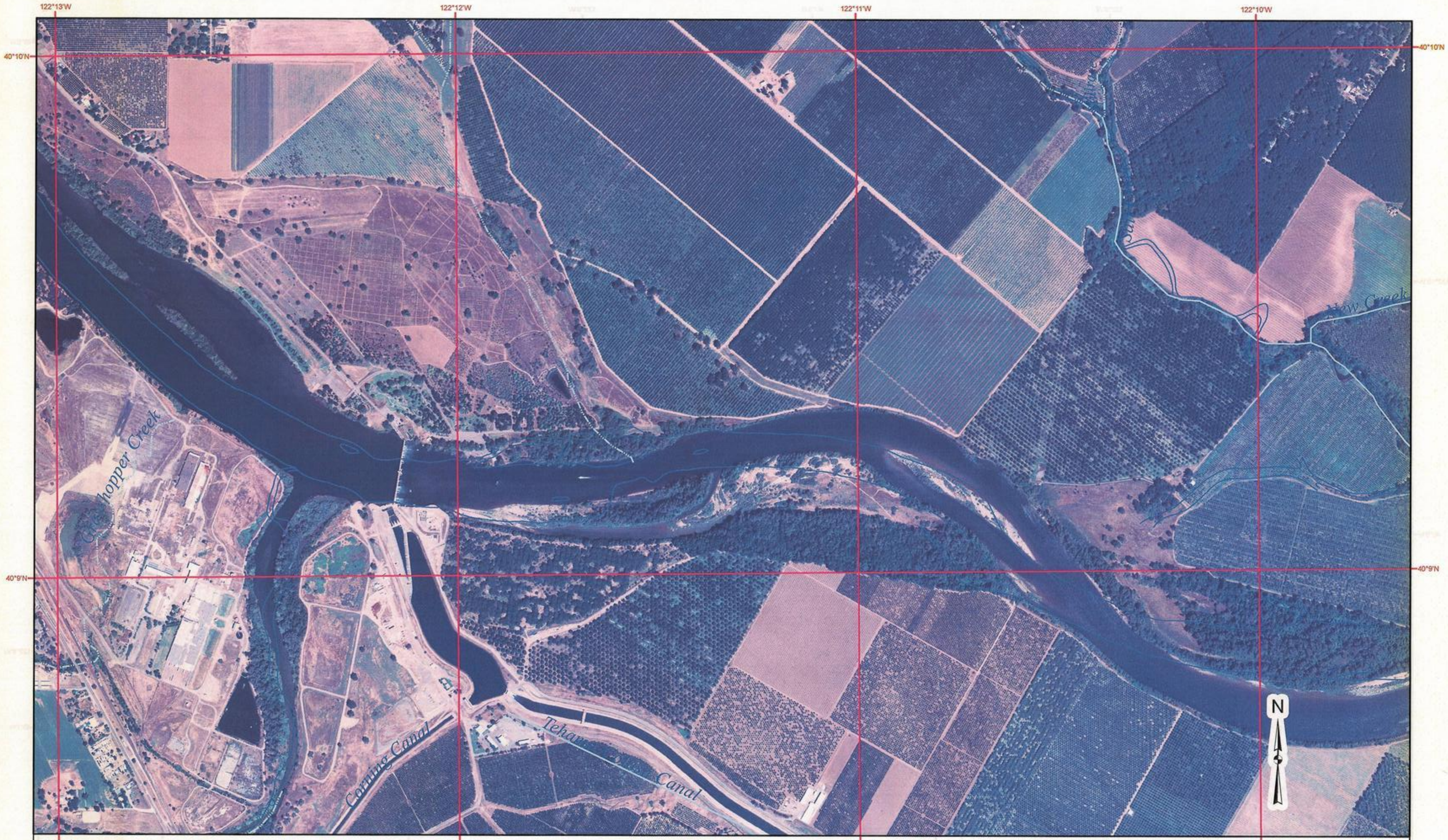


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
Dark blue line work denotes waters edge from Corp map.
Light blue line work denotes stream features from ESRI Street Maps

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Northern District
Red Bluff, California



Sheet #
03



Sheet #
03

Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

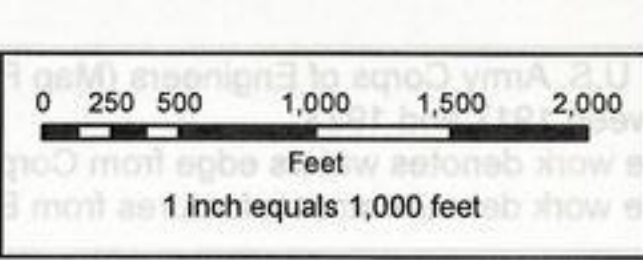
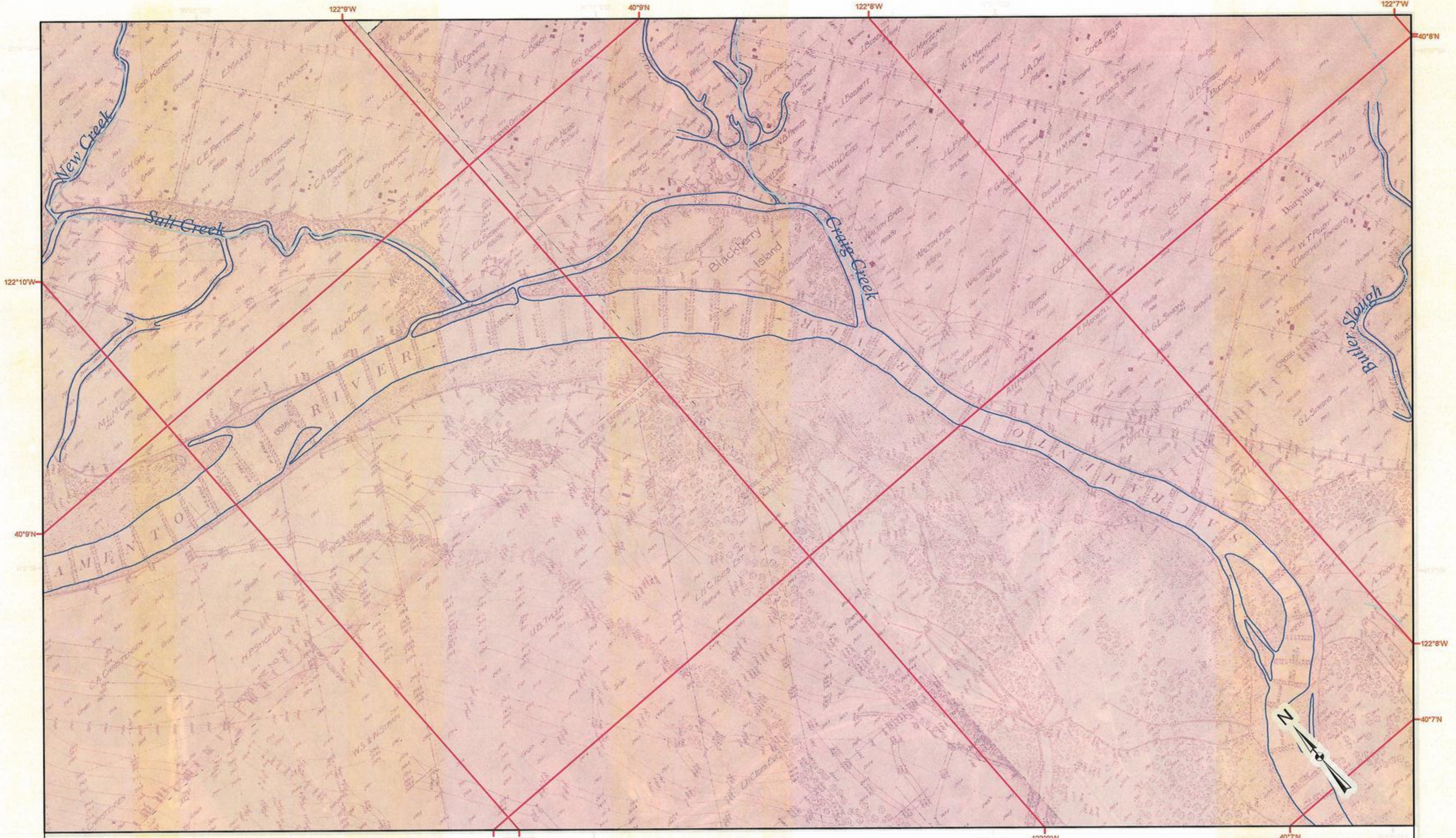


Photo Source: USDA National Agricultural Imagery Program (NAIP)
Dark blue line work denotes waters edge from 1923 Corp map.
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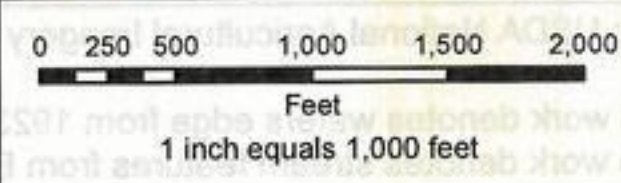


Sheet #
03



Sheet #
04

Sacramento River
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base



Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
Dark blue line work denotes waters edge from Corp map.
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Northern District
Red Bluff, California



Sheet #
04



**Sheet #
04**

**Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base**

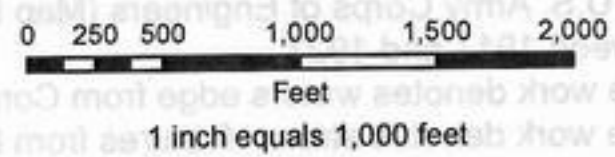
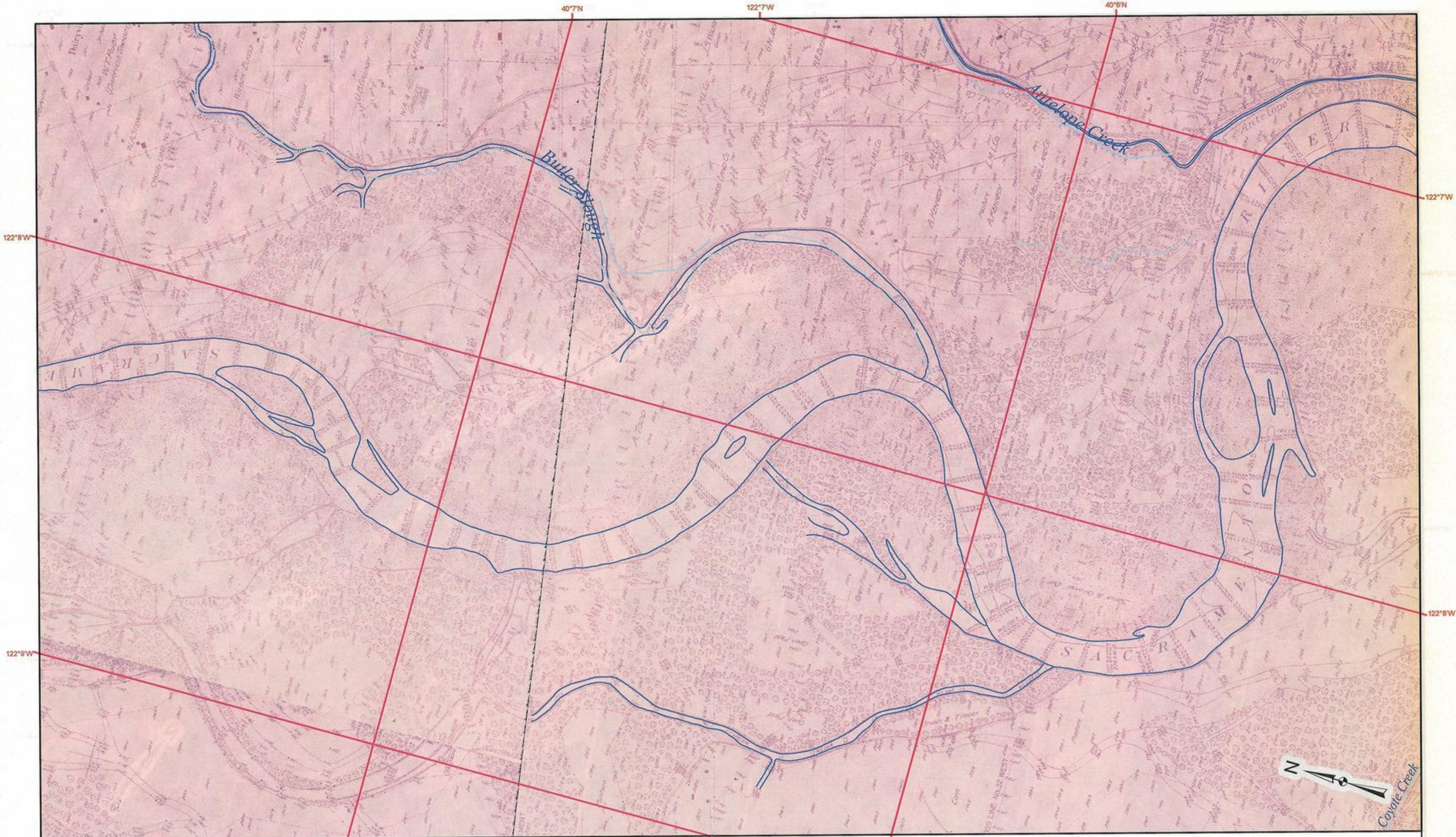


Photo Source: USDA National Agricultural Imagery Program (NAIP)
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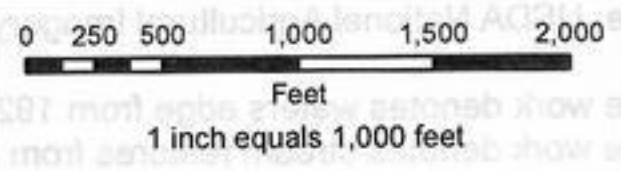


**Sheet #
04**



**Sheet #
05**

**Sacramento River
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base**

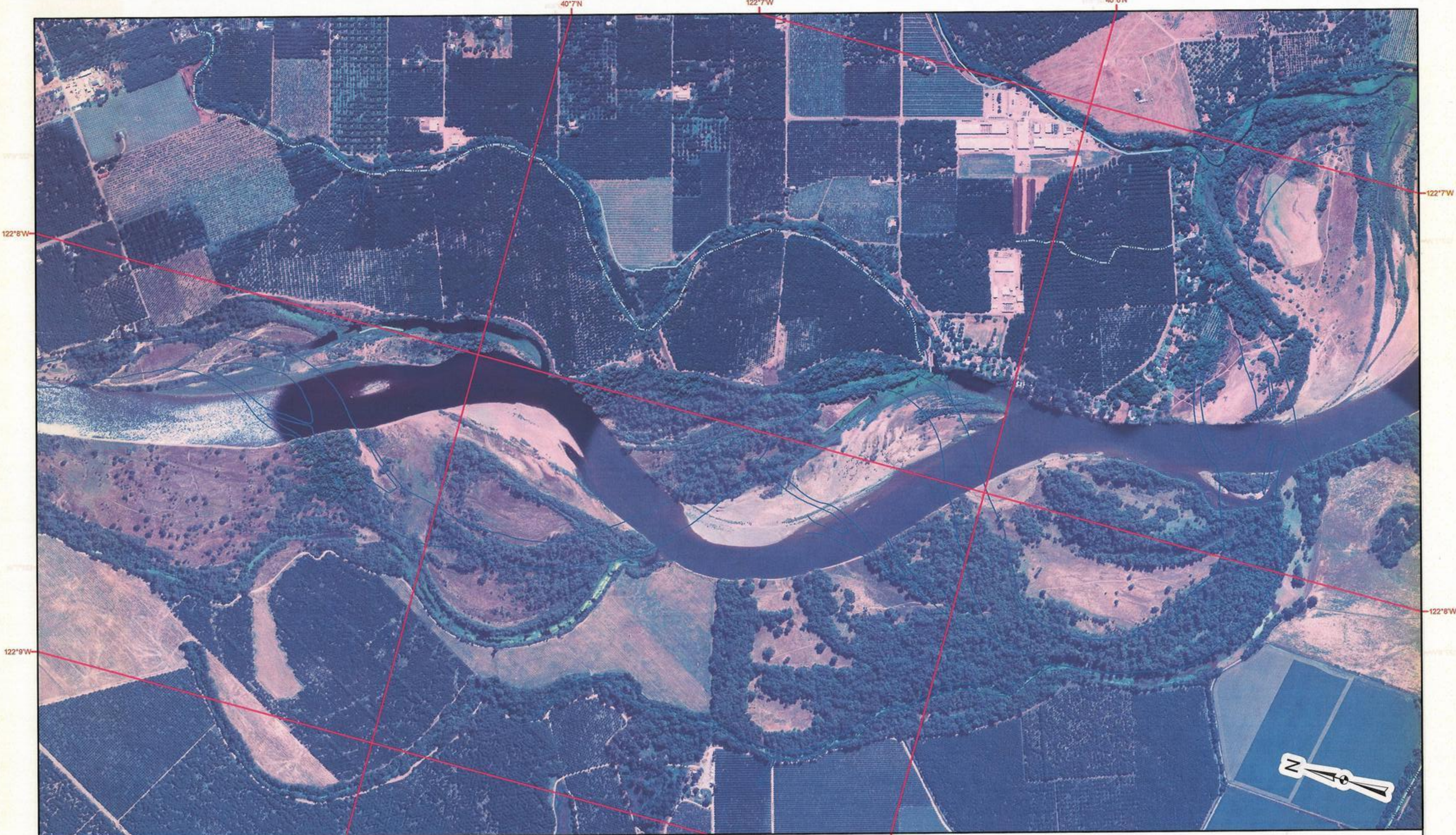


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
Dark blue line work denotes waters edge from Corp map.
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**Sheet #
05**



**Sheet #
05**

**Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base**

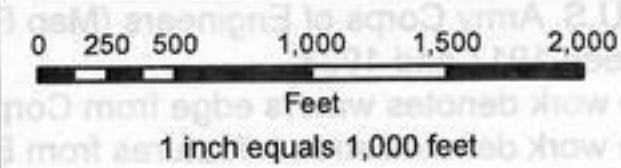


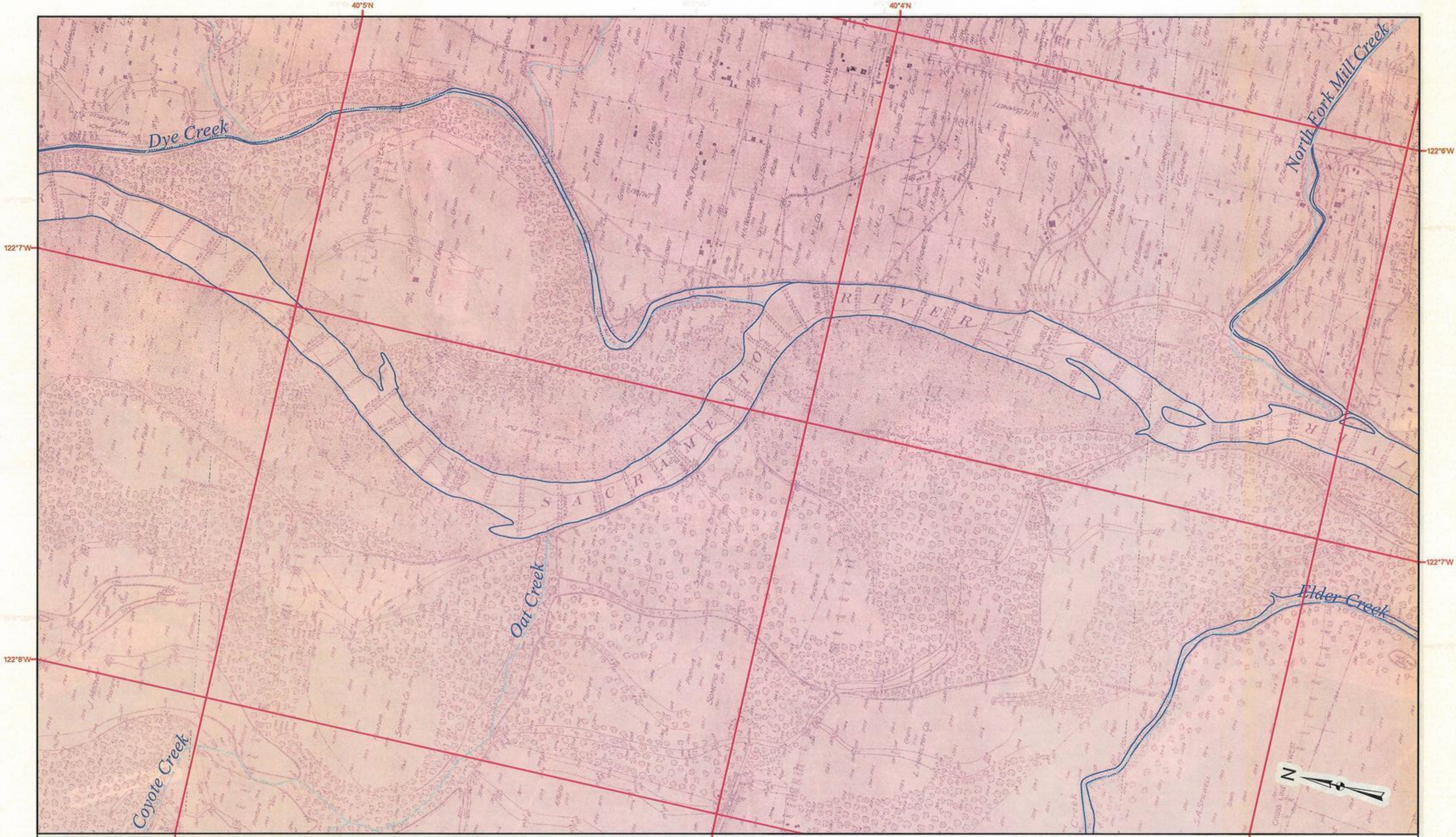
Photo Source: USDA National Agricultural Imagery Program (NAIP)

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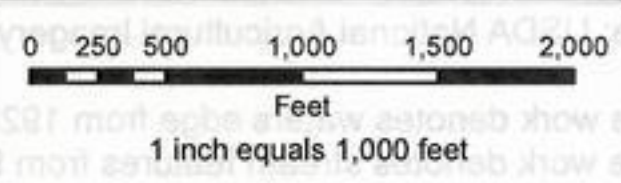


**Sheet #
05**



Sheet #
06

Sacramento River
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

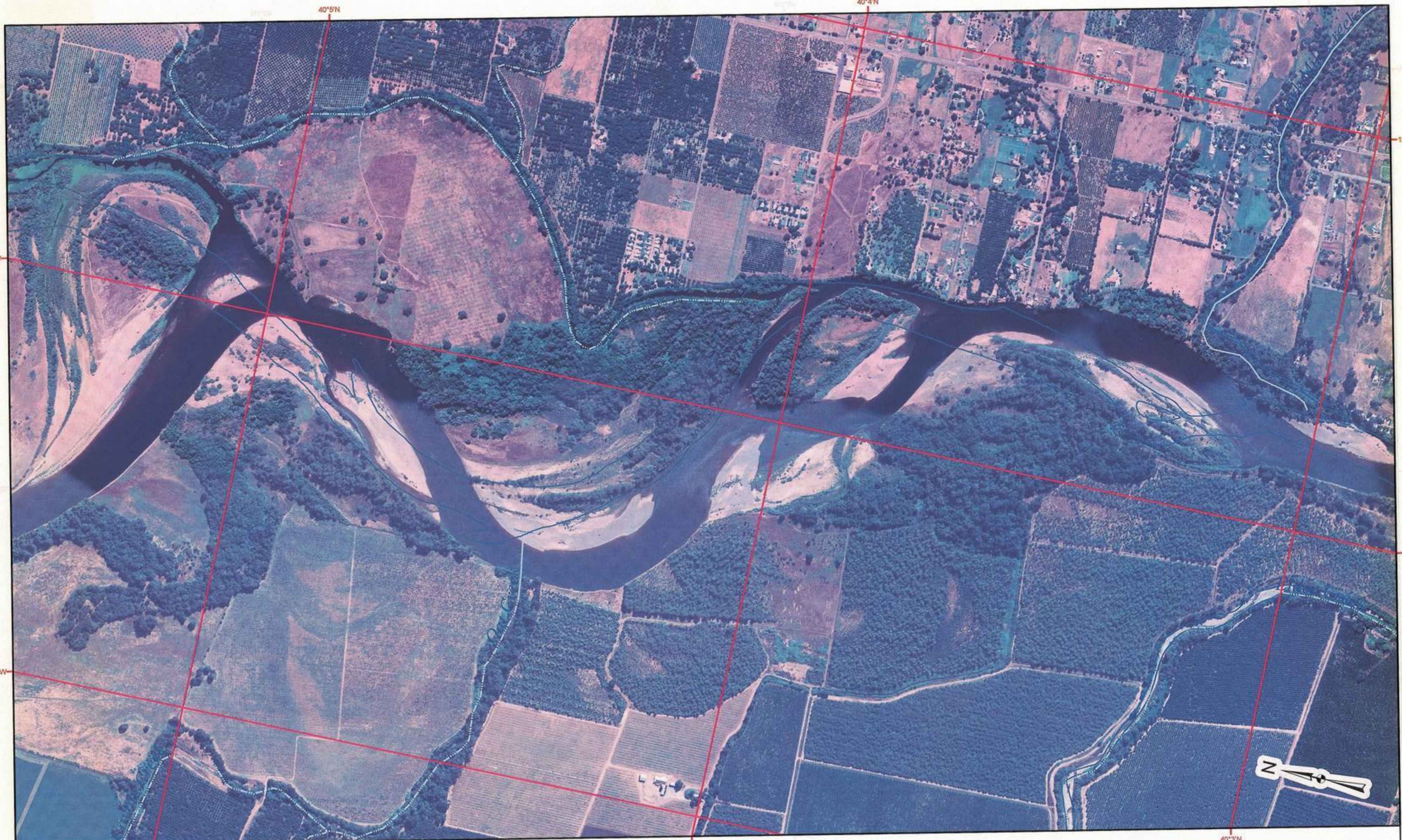


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
Dark blue line work denotes waters edge from Corp map.
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Sheet #
06



**Sheet #
06**

**Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base**

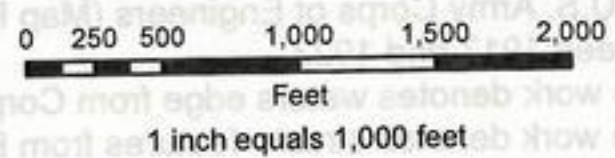
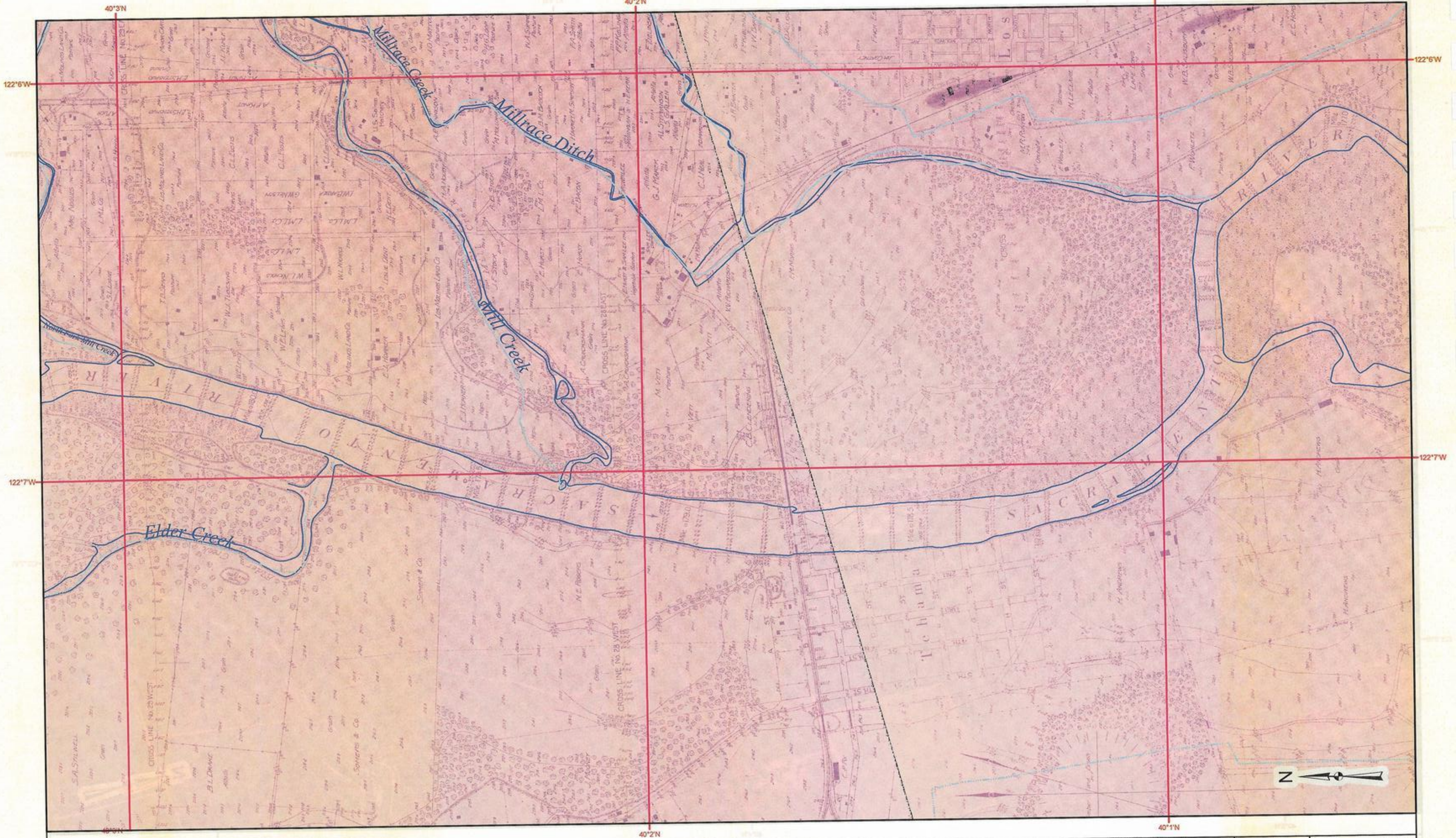


Photo Source: USDA National Agricultural Imagery Program (NAIP)
Dark blue line work denotes waters edge from 1923 Corp map.
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Red Bluff, California



**Sheet #
06**



| | | | | | | |
|-------------------------------------|---|--|--|---|--|-------------------------------------|
| <p>Sheet # 07</p> | <p>Sacramento River From Red Bluff to Chico Landing U.S. Army Corp of Engineers Map Base</p> | <p>0 250 500 1,000 1,500 2,000 Feet 1 inch equals 1,000 feet</p> | <p>Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593) Mapped between 1917 and 1923 Dark blue line work denotes waters edge from Corp map. Light blue line work denotes stream features from ESRI Street Maps</p> | <p>River Atlas created by: Jonathan Mulder Certified Engineering Geologist #1352 California Department of Water Resources Northern District Red Bluff, California</p> | | <p>Sheet # 07</p> |
|-------------------------------------|---|--|--|---|--|-------------------------------------|



Sheet #
07

Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

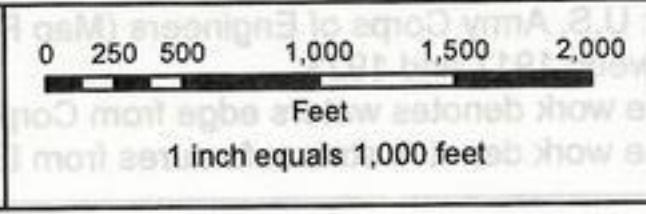
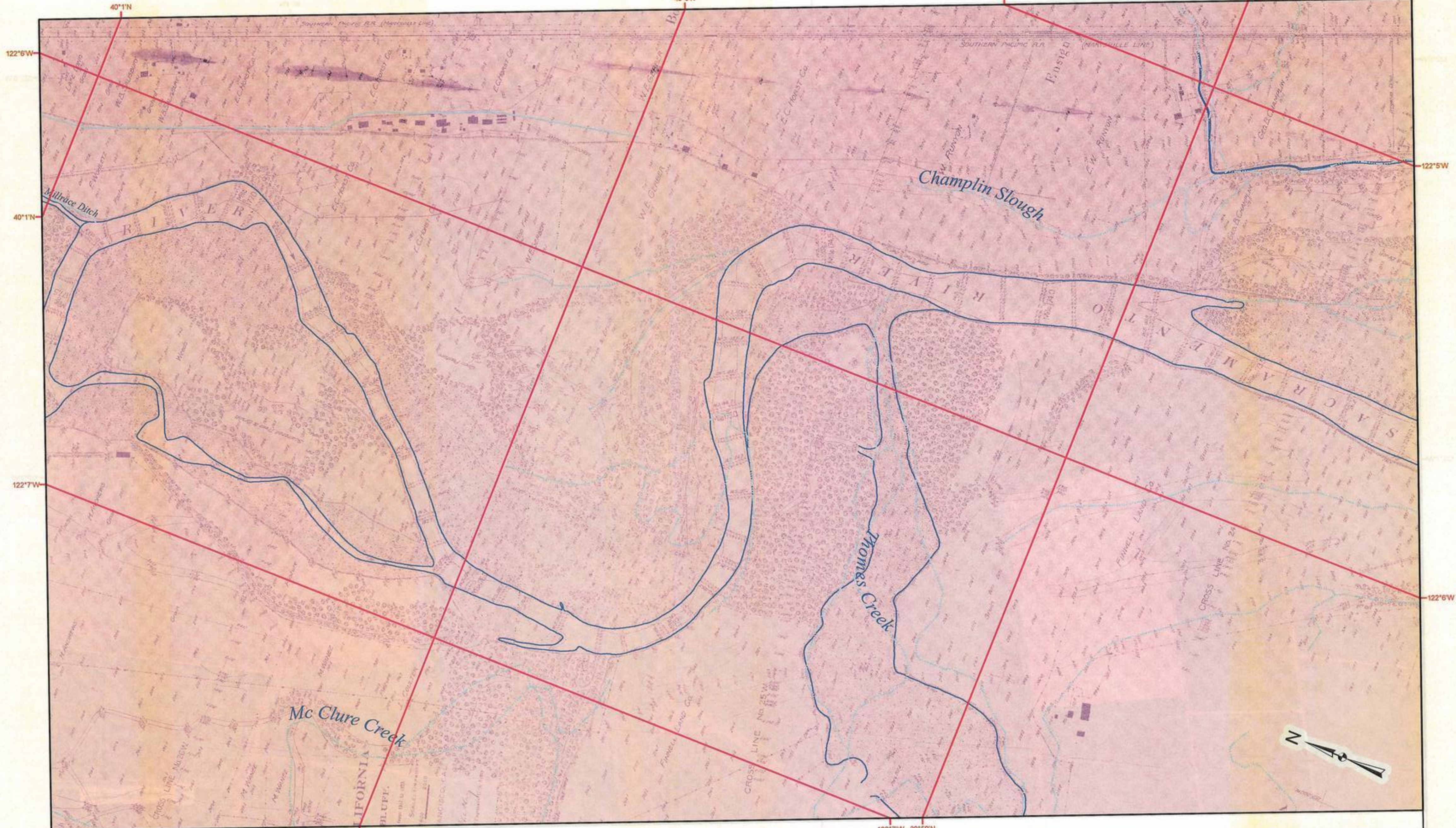


Photo Source: USDA National Agricultural Imagery Program (NAIP)
Dark blue line work denotes waters edge from 1923 Corp map.
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Northern District
Red Bluff, California



Sheet #
07



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|-------------------------------------|---|--|--|---|--|-------------------------------------|
| <p>Sheet # 08</p> | <p>Sacramento River From Red Bluff to Chico Landing U.S. Army Corp of Engineers Map Base</p> | <p>0 250 500 1,000 1,500 2,000 Feet 1 inch equals 1,000 feet</p> | <p>Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593) Mapped between 1917 and 1923 Dark blue line work denotes waters edge from Corp map. Light blue line work denotes stream features from ESRI Street Maps</p> | <p>River Atlas created by: Jonathan Mulder Certified Engineering Geologist #1352 California Department of Water Resources Northern District Red Bluff, California</p> | | <p>Sheet # 08</p> |
|-------------------------------------|---|--|--|---|--|-------------------------------------|



**Sheet #
08**

**Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base**

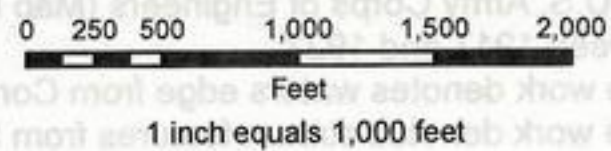


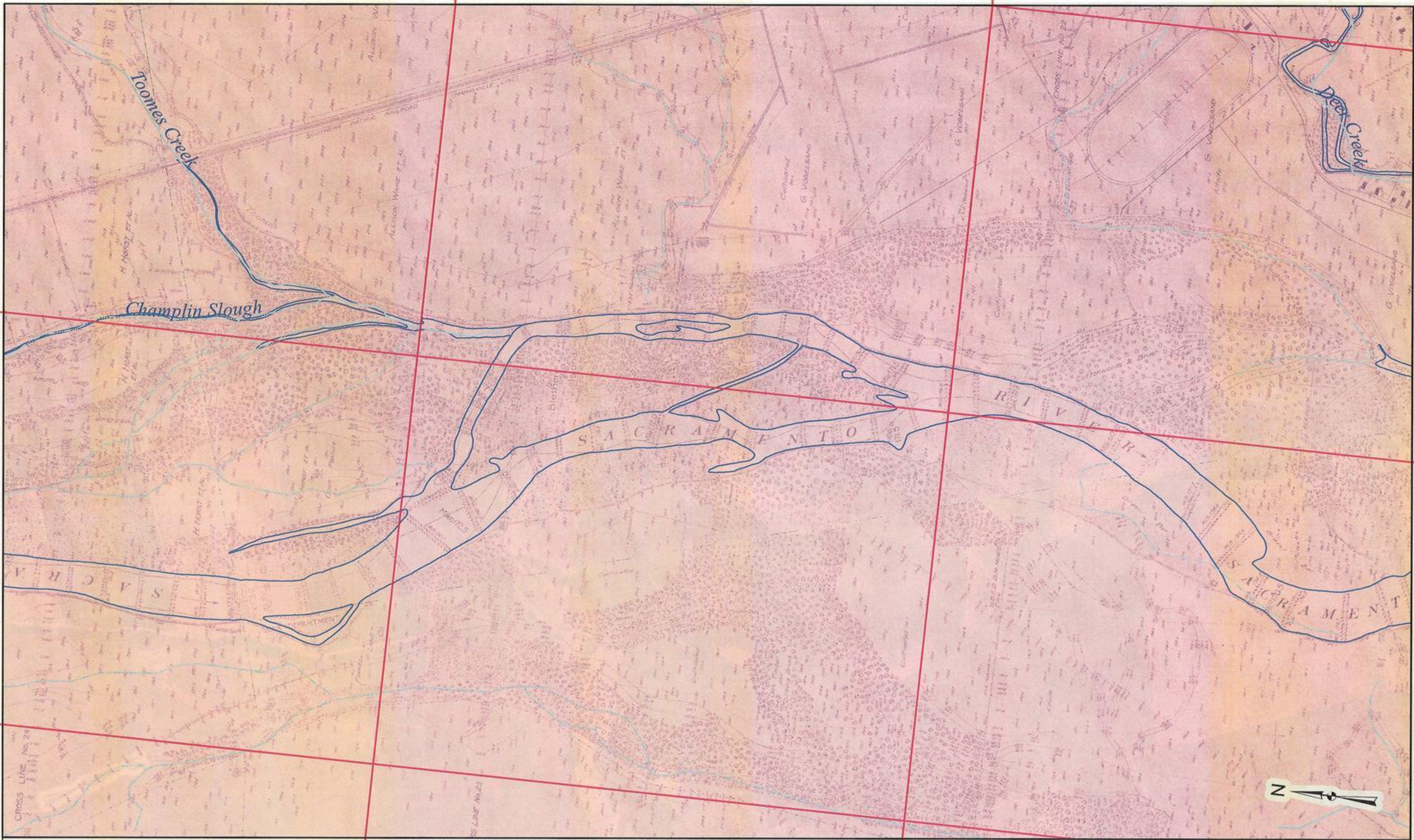
Photo Source: USDA National Agricultural Imagery Program (NAIP)


Dark blue line work denotes waters edge from 1923 Corp map.
Light blue line work denotes stream features from ESRI Street Maps

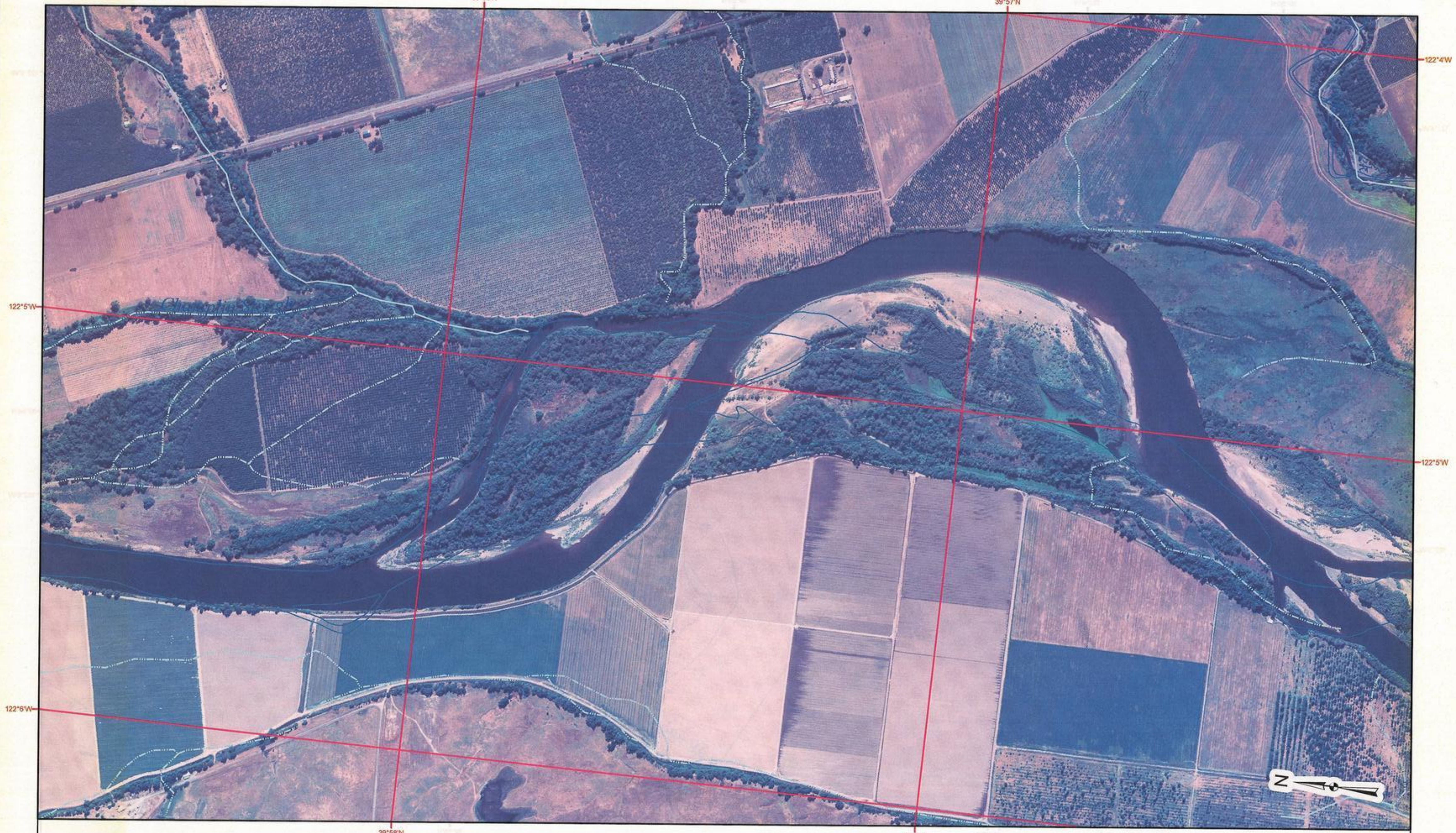
River Atlas created by:
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Certified Engineering Geologist #1352
California Department of Water Resources
Northern District
Red Bluff, California



**Sheet #
08**



| | | | | | | |
|-------------------------------------|---|--|--|---|---|-------------------------------------|
| <p>Sheet # 09</p> | <p>Sacramento River From Red Bluff to Chico Landing U.S. Army Corp of Engineers Map Base</p> | <p>0 250 500 1,000 1,500 2,000 Feet 1 inch equals 1,000 feet</p> | <p>Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593) Mapped between 1917 and 1923 Dark blue line work denotes waters edge from Corp map. Light blue line work denotes stream features from ESRI Street Maps</p> | <p>River Atlas created by: Jonathan Mulder Certified Engineering Geologist #1352 California Department of Water Resources Northern District Red Bluff, California</p> |  | <p>Sheet # 09</p> |
|-------------------------------------|---|--|--|---|---|-------------------------------------|



Sheet #
09

Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

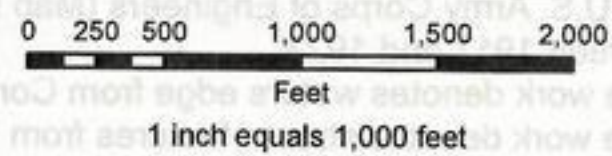
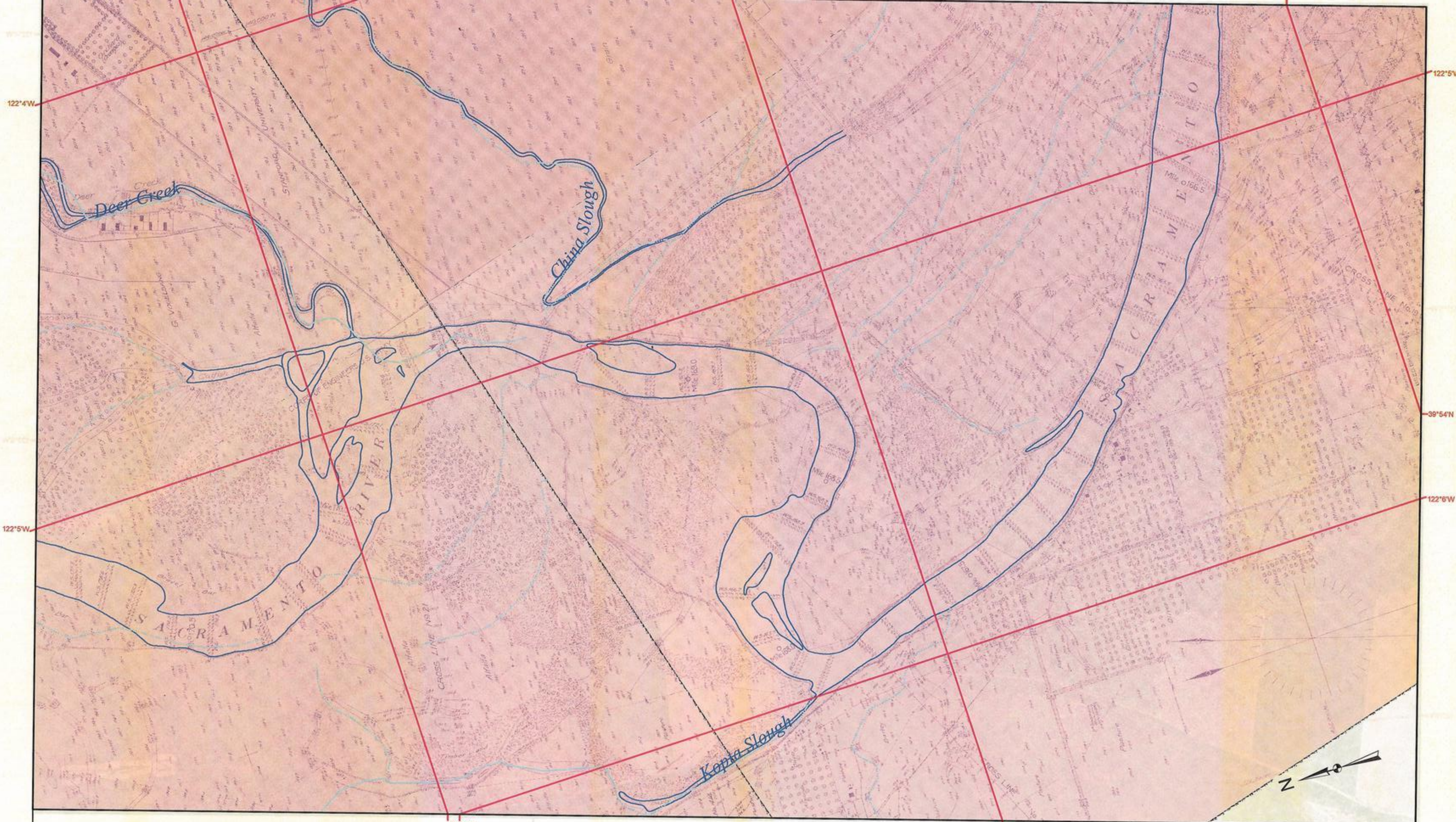


Photo Source: USDA National Agricultural Imagery Program (NAIP)
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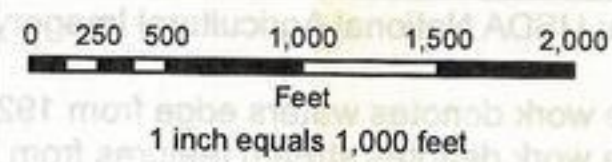


Sheet #
09



Sheet #
10

Sacramento River (circa 1923)
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

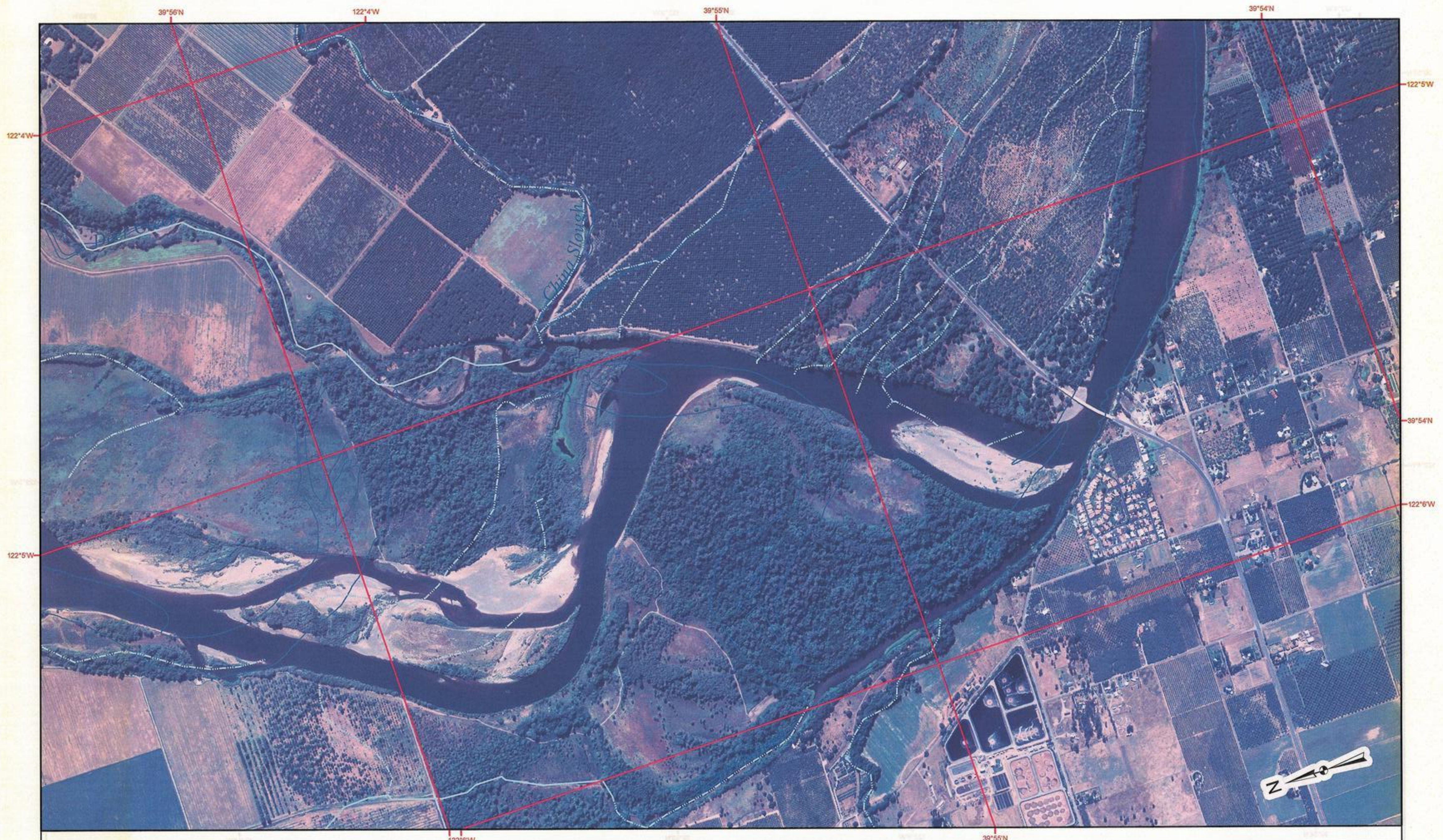


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
Dark blue line work denotes waters edge from Corp map.
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Northern District
Red Bluff, California



Sheet #
10



Sheet #
10

Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

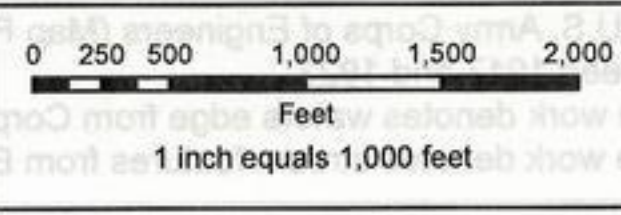
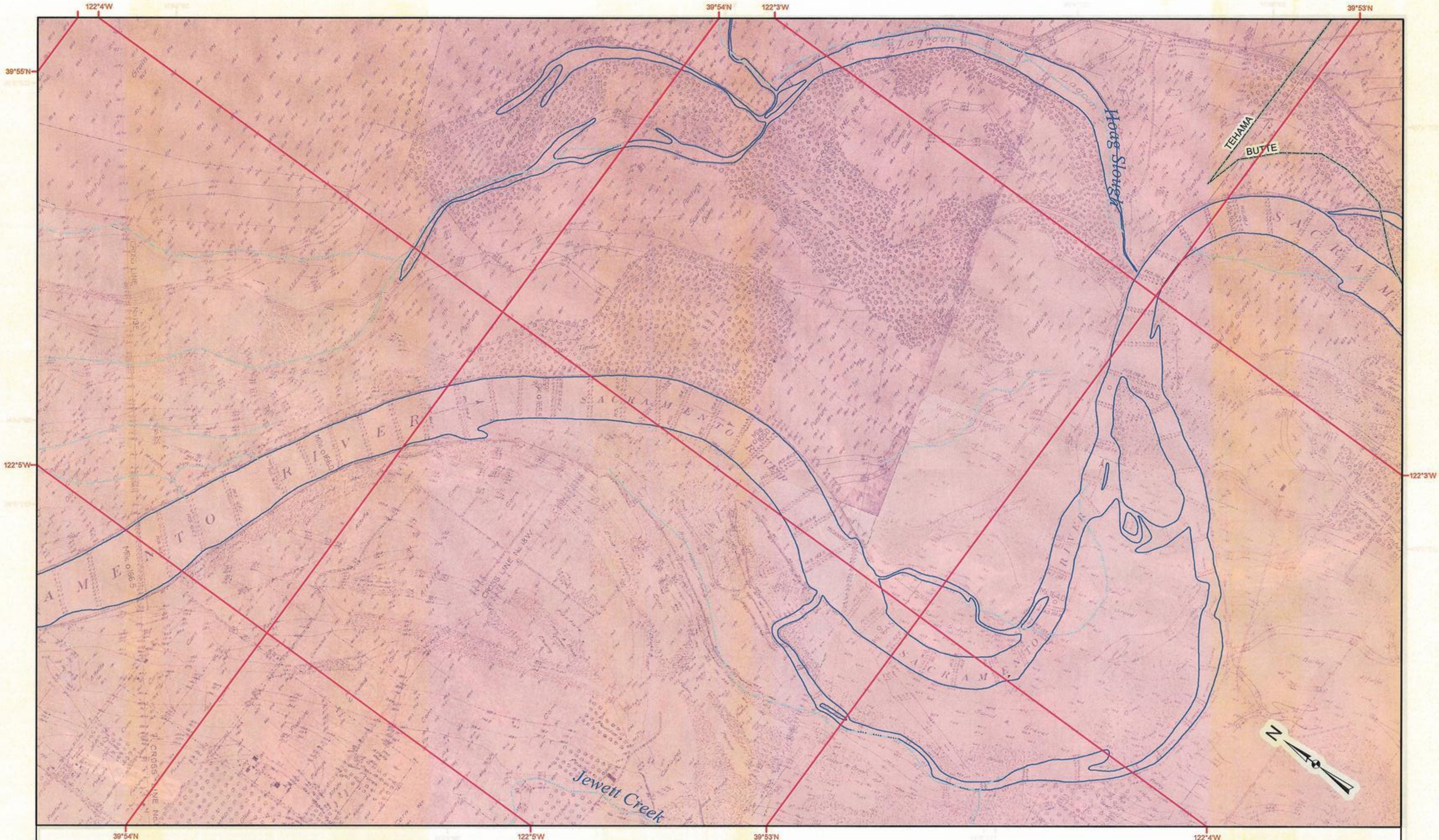


Photo Source: USDA National Agricultural Imagery Program (NAIP)
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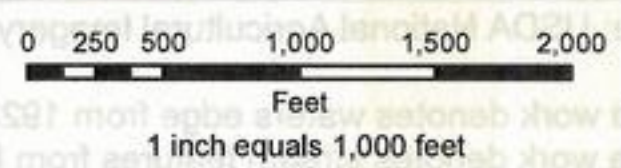


Sheet #
10



Sheet #
11

Sacramento River (circa 1923)
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

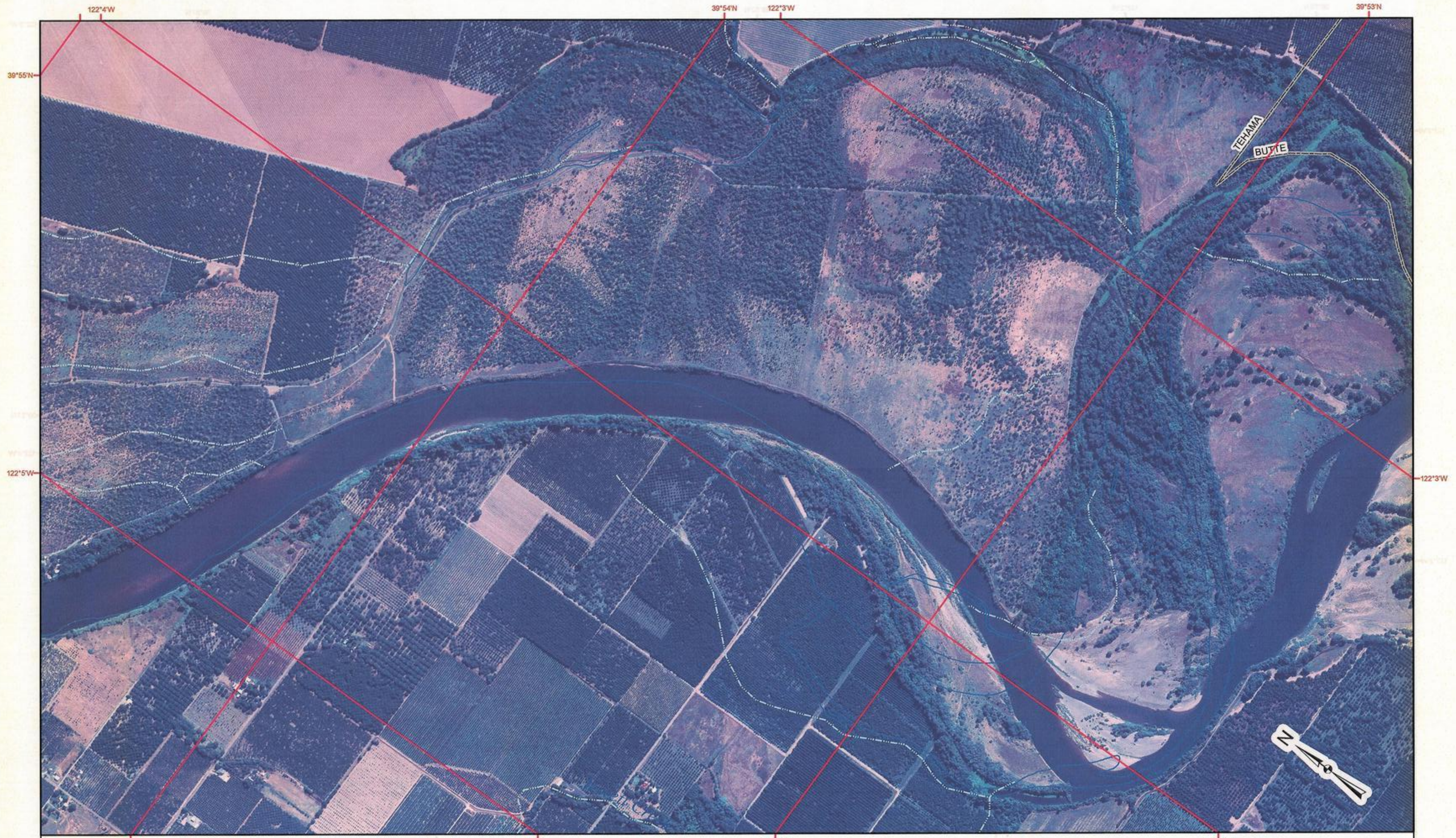


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
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Northern District
Red Bluff, California



Sheet #
11



Sheet #
11

Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

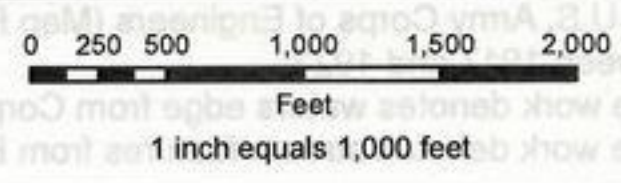
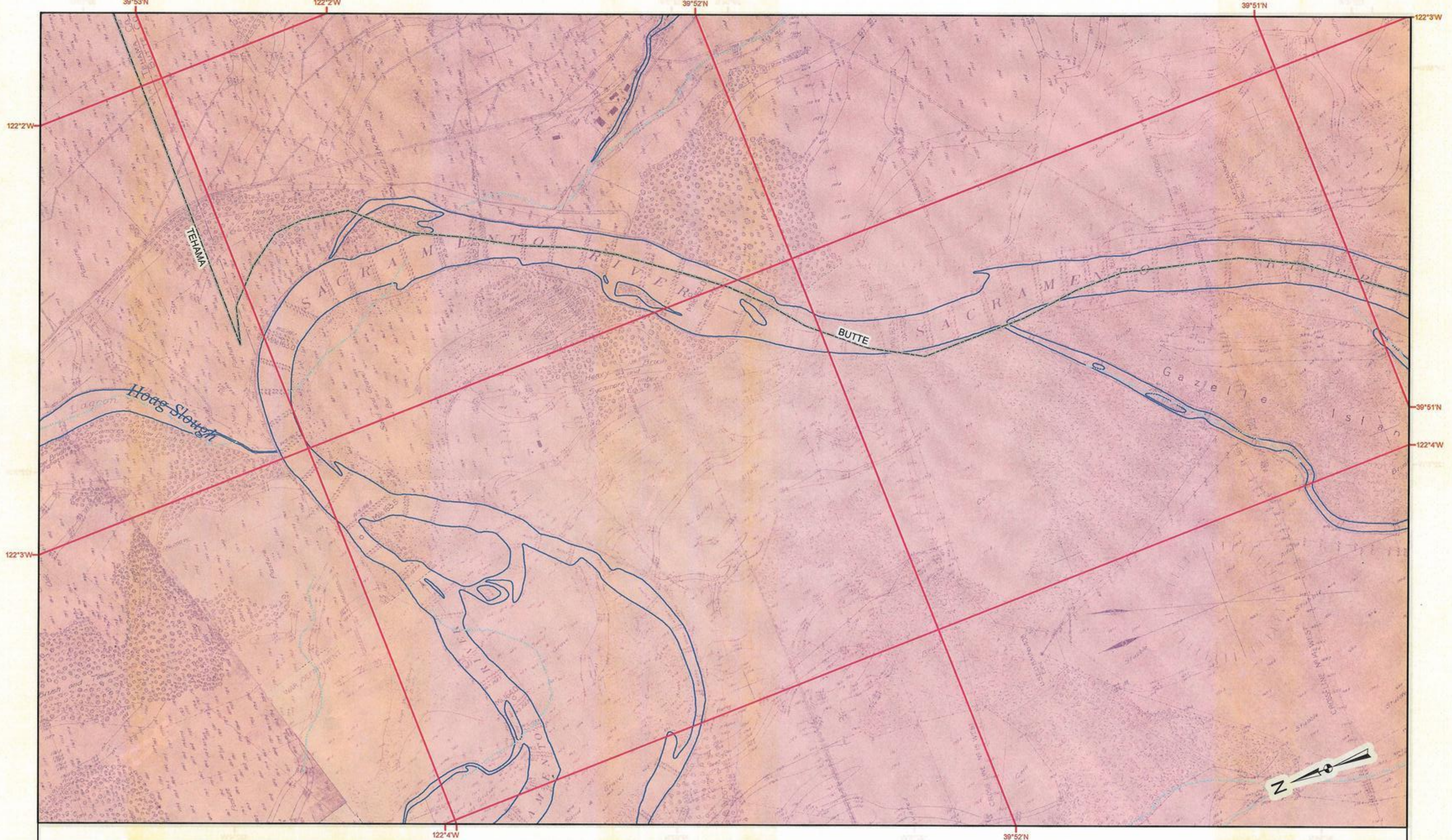


Photo Source: USDA National Agricultural Imagery Program (NAIP)
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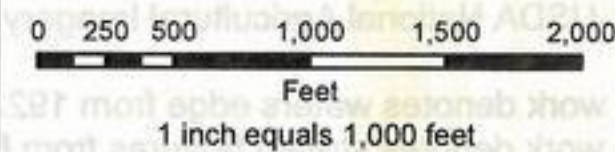


Sheet #
11



Sheet #
12

Sacramento River (circa 1923)
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

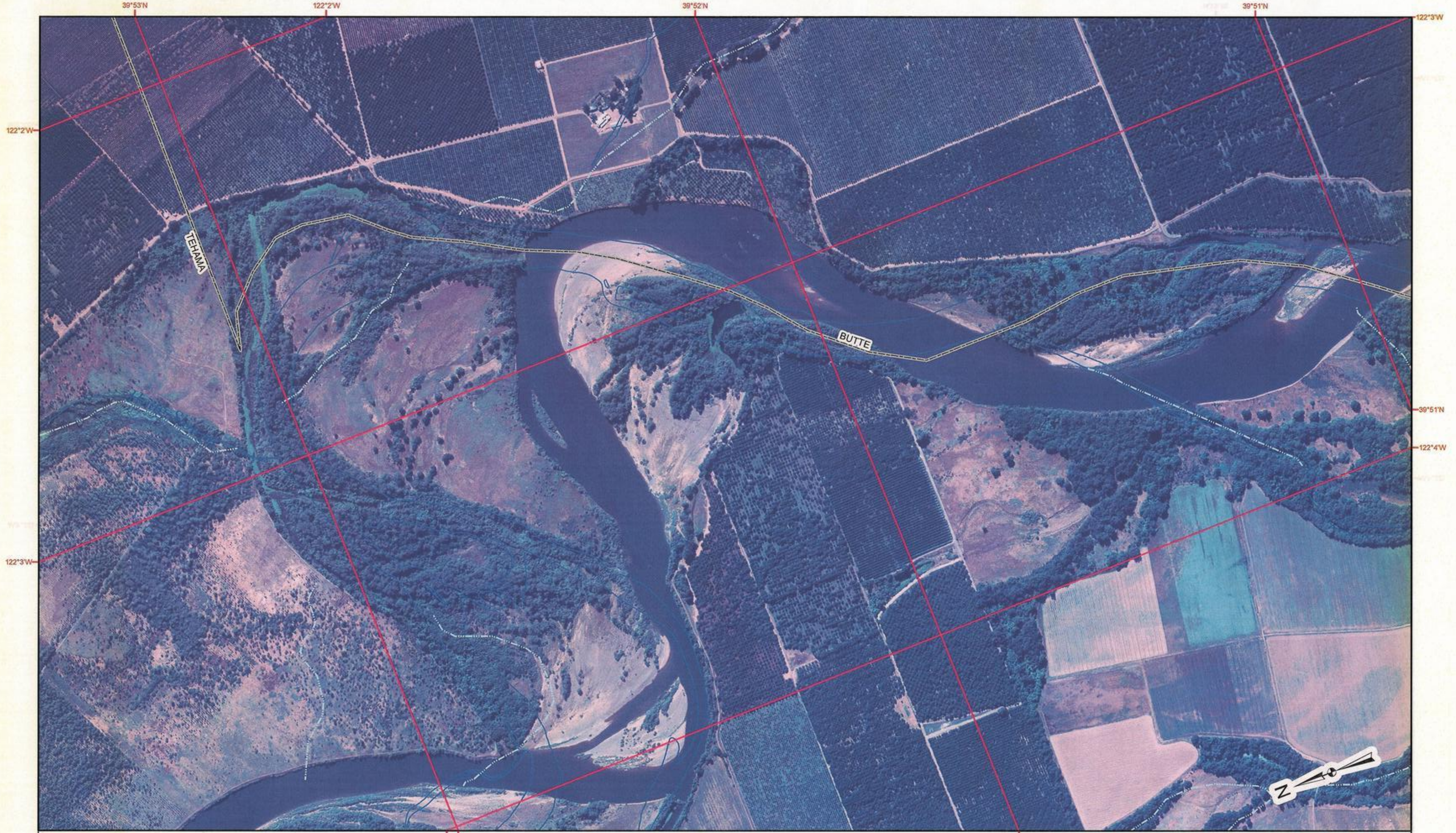


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
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Red Bluff, California



Sheet #
12



**Sheet #
12**

**Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base**

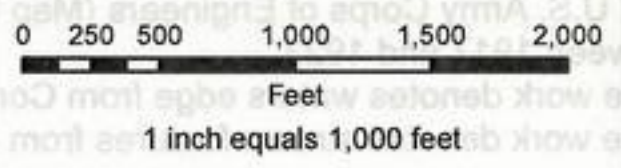


Photo Source: USDA National Agricultural Imagery Program (NAIP)
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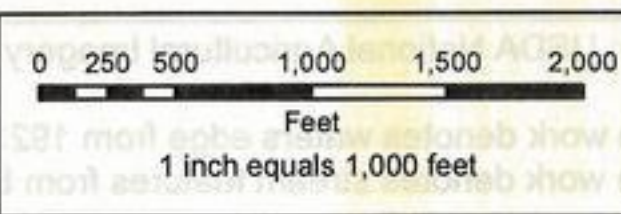


**Sheet #
12**



Sheet #
13

Sacramento River (circa 1923)
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

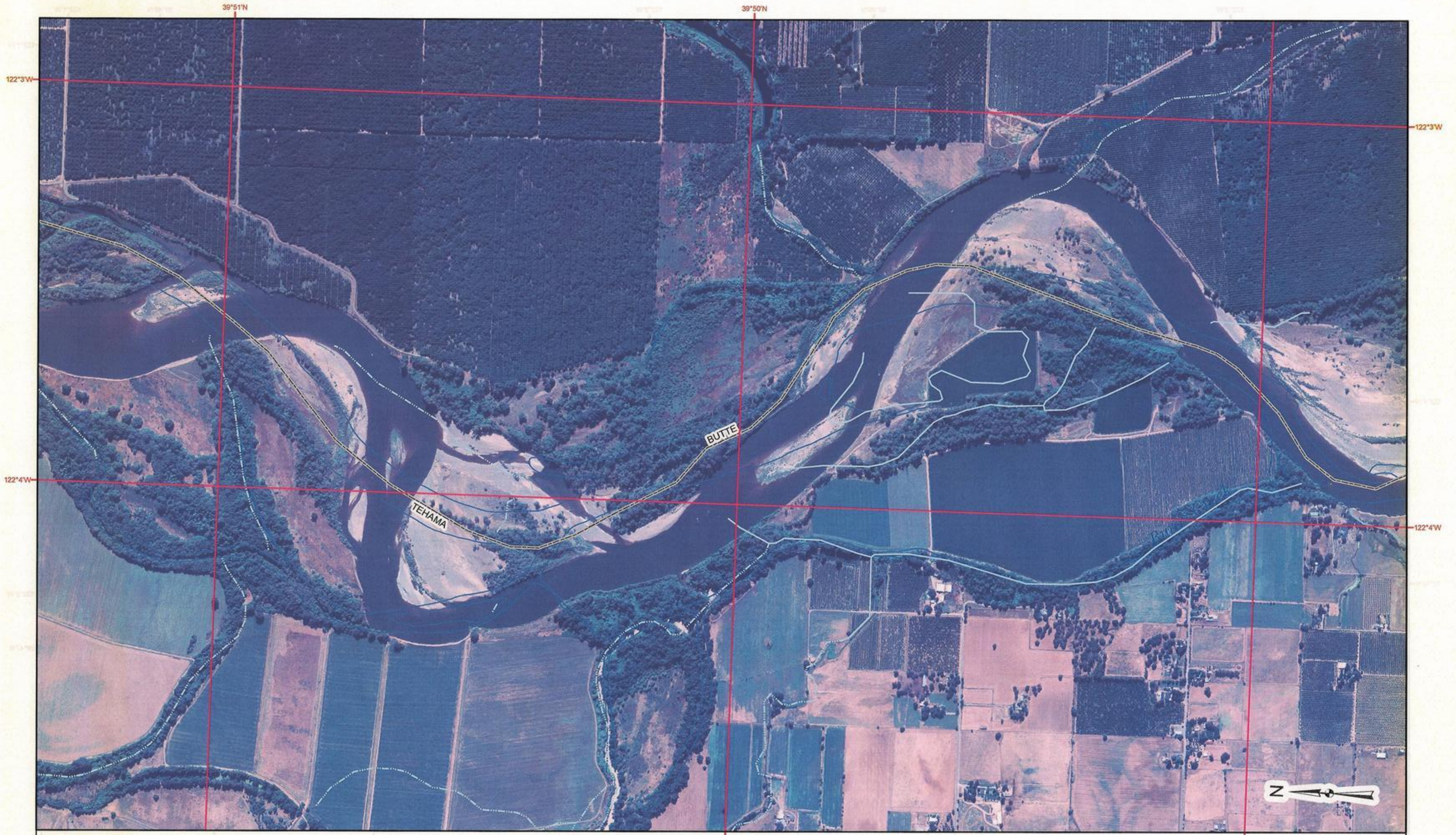


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
Dark blue line work denotes waters edge from Corp map.
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Red Bluff, California



Sheet #
13



Sheet #
13

Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

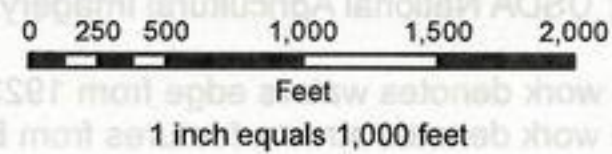


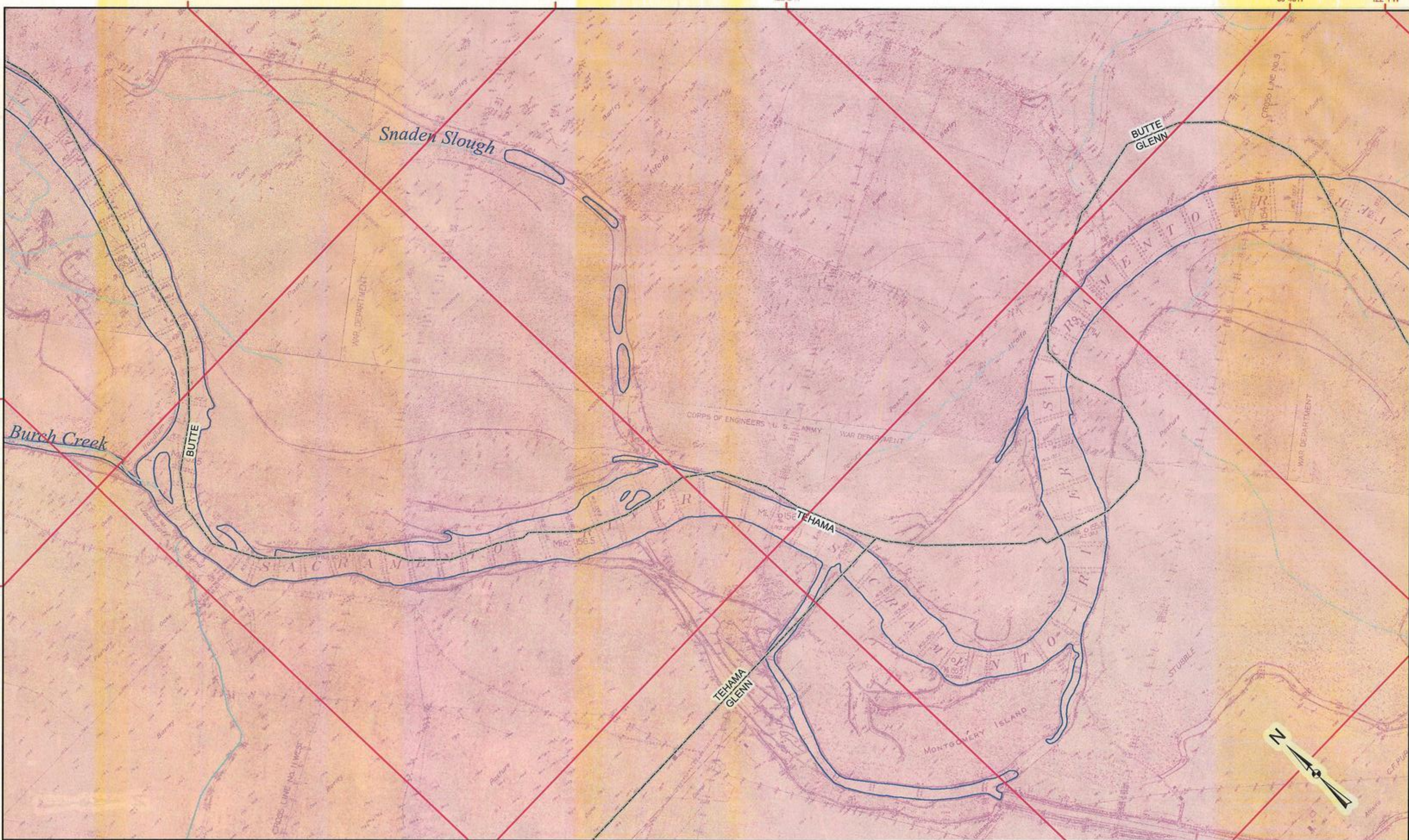
Photo Source: USDA National Agricultural Imagery Program (NAIP)

Dark blue line work denotes waters edge from 1923 Corp map.
Light blue line work denotes stream features from ESRI Street Maps

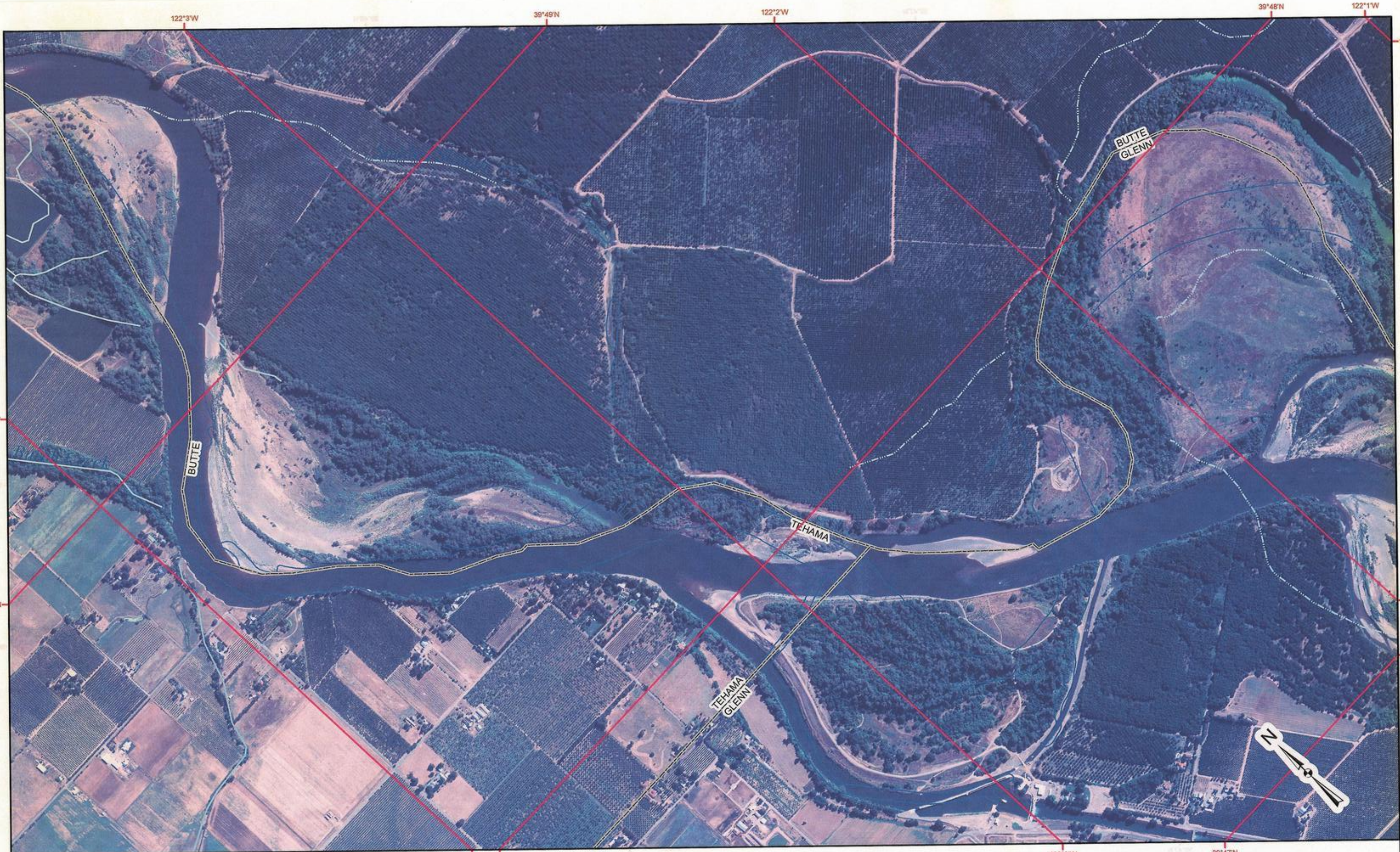
River Atlas created by:
Jonathan Mulder
Certified Engineering Geologist #1352
California Department of Water Resources
Northern District
Red Bluff, California



Sheet #
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| | | | | | | |
|-------------------------------------|--|--|---|---|--|-------------------------------------|
| <p>Sheet # 14</p> | <p>Sacramento River (circa 1923) From Red Bluff to Chico Landing U.S. Army Corp of Engineers Map Base</p> | <p>0 250 500 1,000 1,500 2,000 Feet 1 inch equals 1,000 feet</p> | <p>Photo Source: USDA National Agricultural Imagery Program (NAIP) Dark blue line work denotes waters edge from 1923 Corp map. Light blue line work denotes stream features from ESRI Street Maps</p> | <p>River Atlas created by: Jonathan Mulder Certified Engineering Geologist #1352 California Department of Water Resources Northern District Red Bluff, California</p> | | <p>Sheet # 14</p> |
|-------------------------------------|--|--|---|---|--|-------------------------------------|



122°3'W 39°49'N 122°2'W 39°48'N 122°1'W 122°1'W

122°4'W 39°49'N 122°2'W 39°47'N 122°2'W 39°47'N

122°4'W 39°47'N 122°3'W 39°47'N

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Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

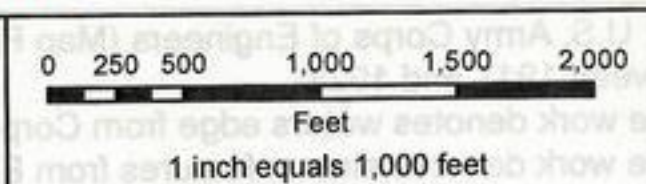


Photo Source: USDA National Agricultural Imagery Program (NAIP)
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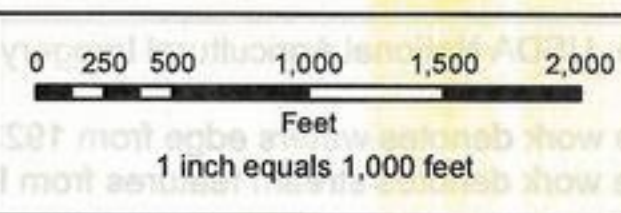


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Sacramento River (circa 1923)
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

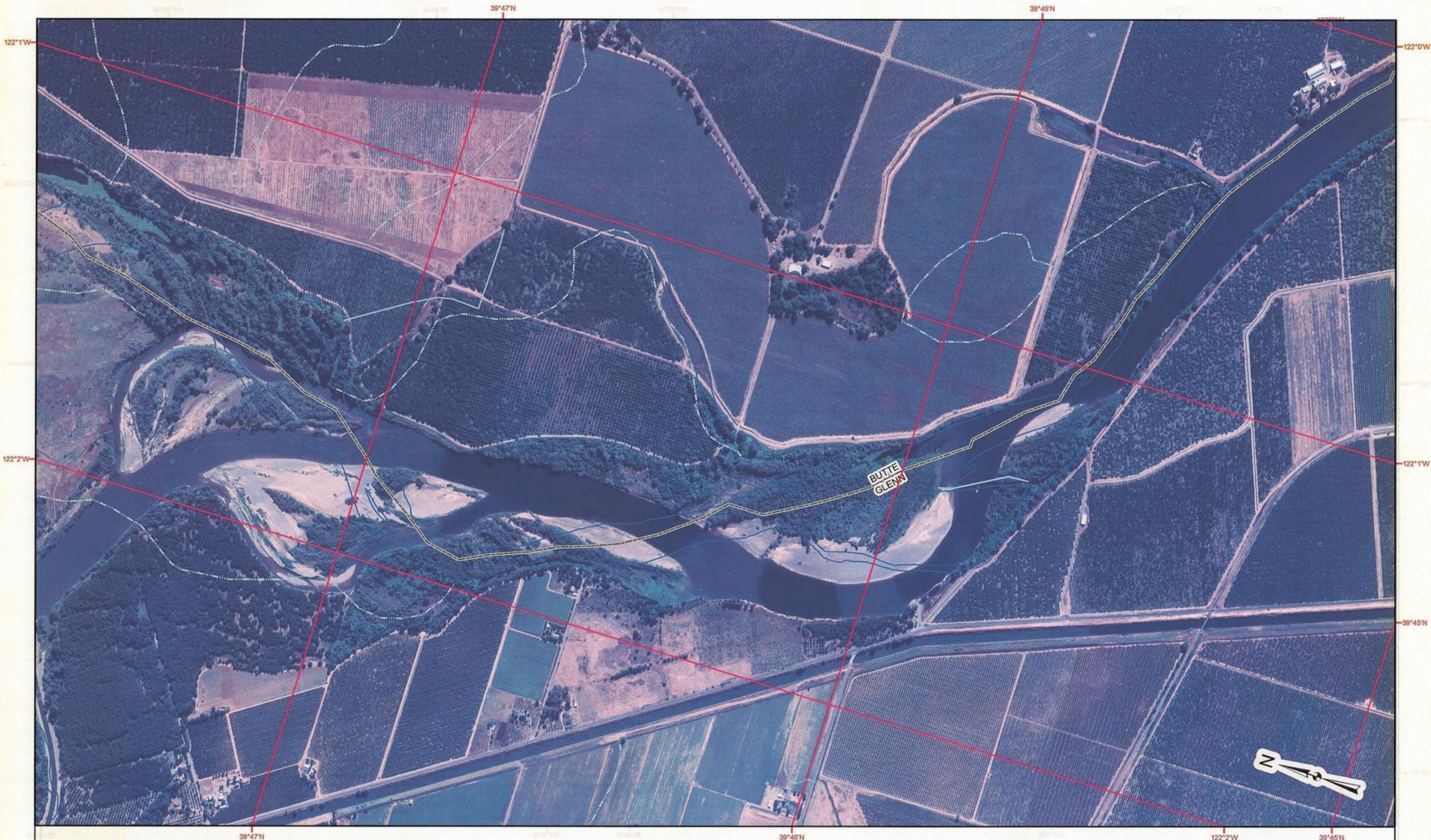


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
Dark blue line work denotes waters edge from Corp map.
Light blue line work denotes stream features from ESRI Street Maps

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Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

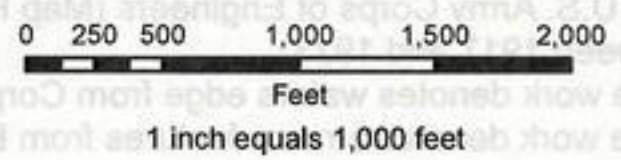
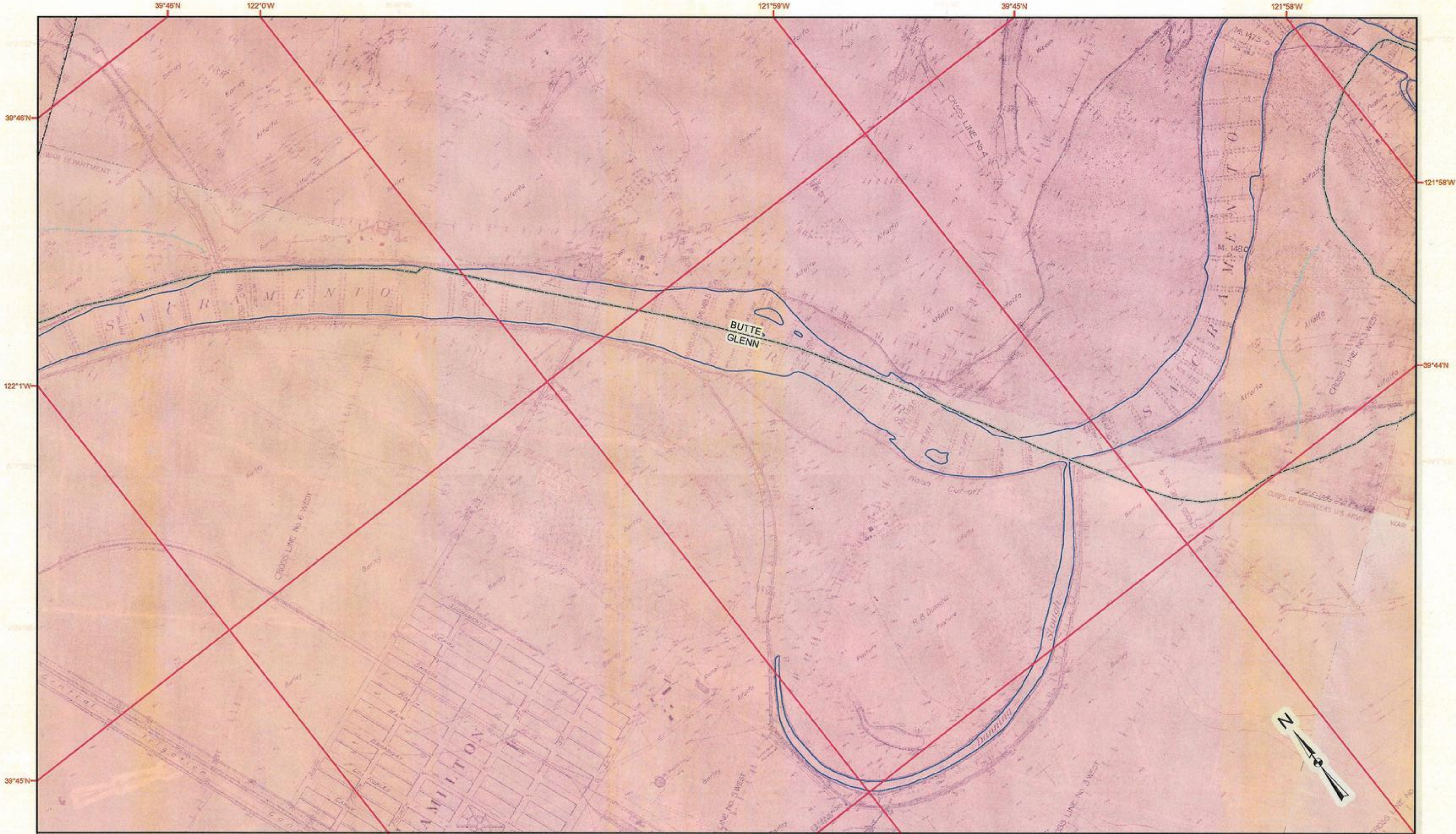


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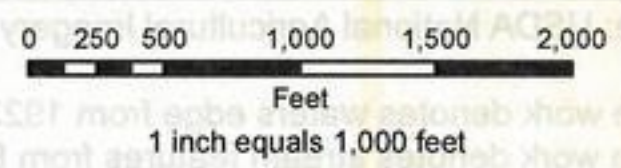


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Sacramento River (circa 1923)
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

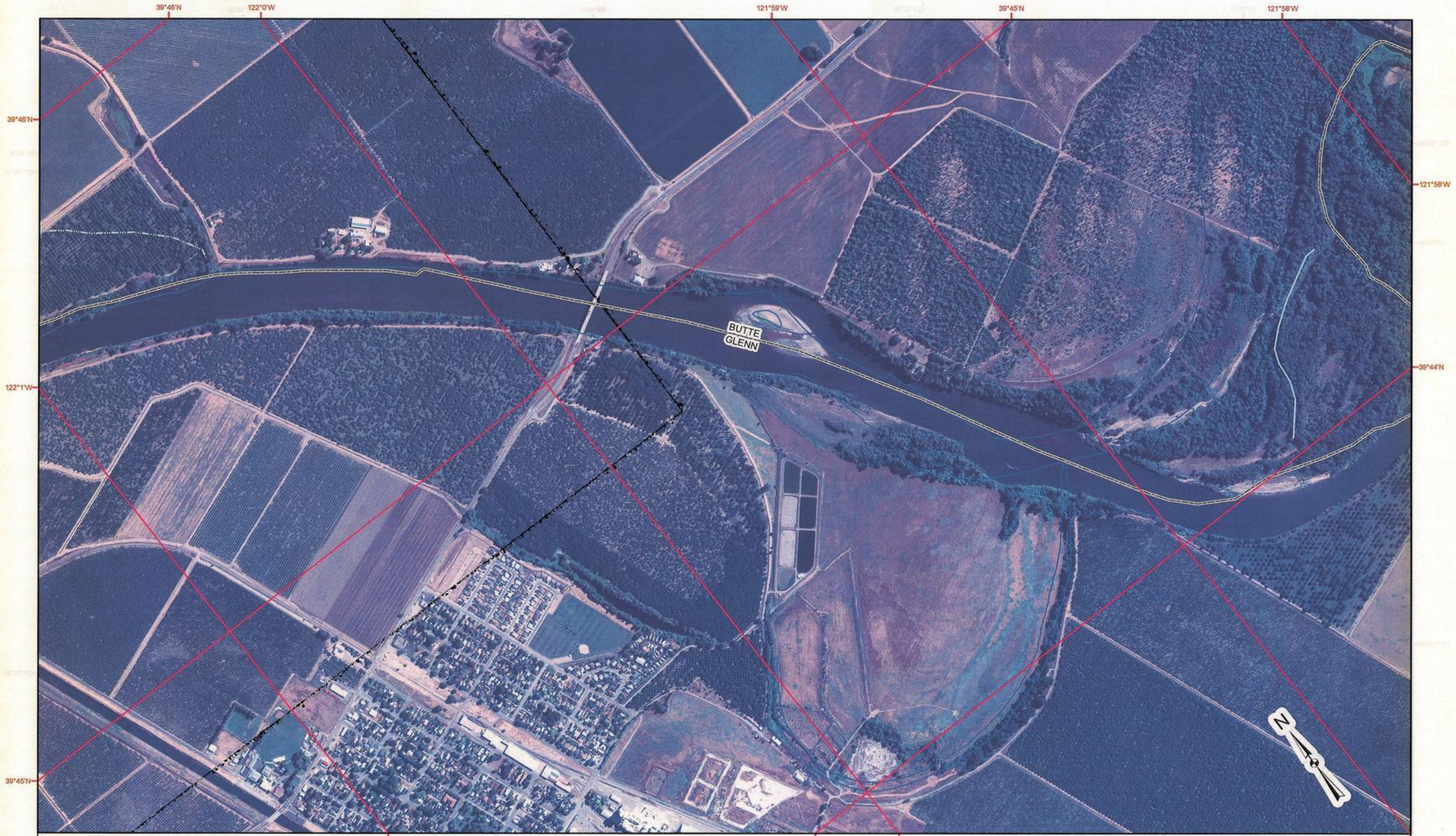


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
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Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

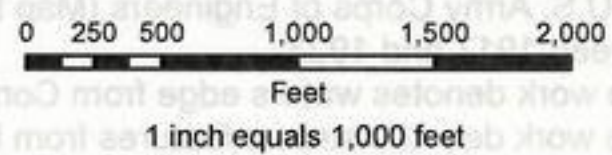


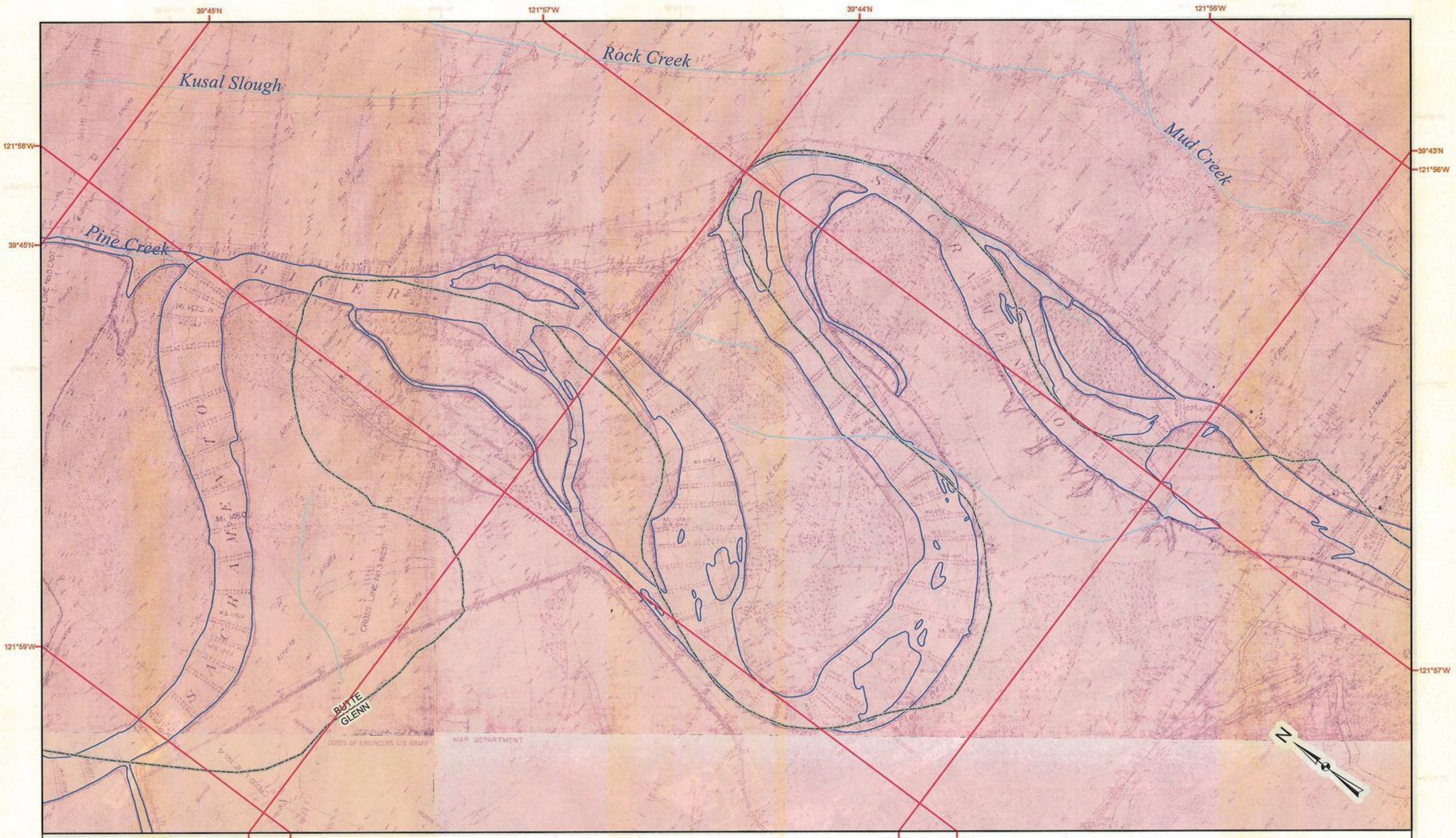
Photo Source: USDA National Agricultural Imagery Program (NAIP)

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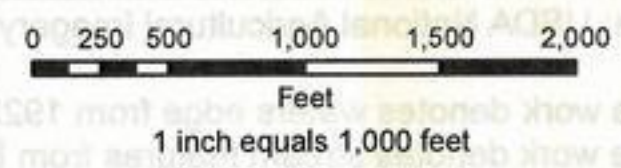


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Sacramento River (circa 1923)
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

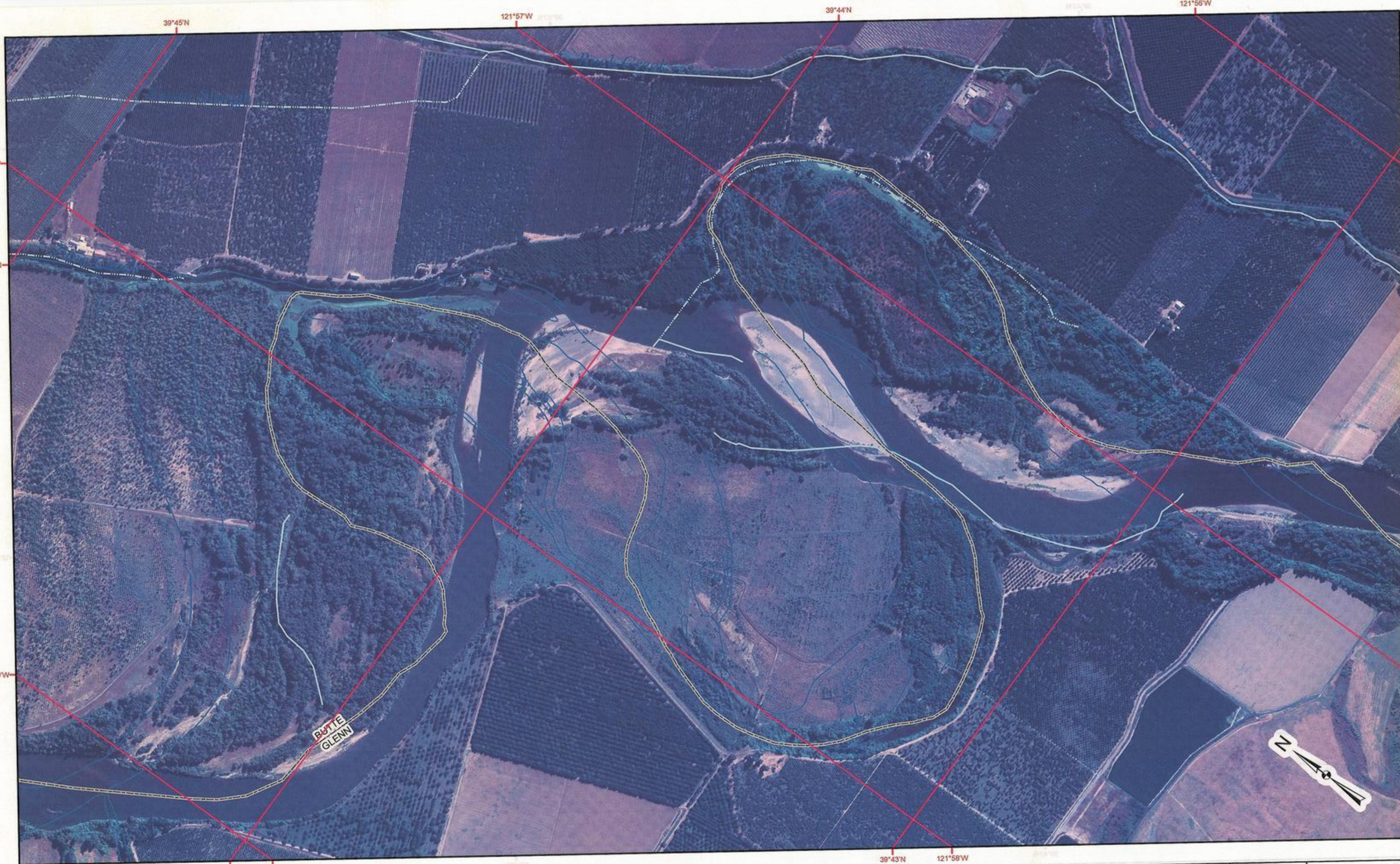


Map Source: U.S. Army Corps of Engineers (Map File # 6-13-593)
Mapped between 1917 and 1923
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Sheet #
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121°58'W

39°45'N

121°59'W

39°45'N

121°57'W

39°44'N

121°56'W

39°43'N

121°56'W

121°57'W

39°44'N 121°59'W

39°43'N 121°58'W

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Sheet #
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Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

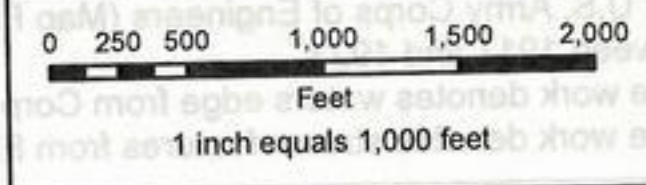
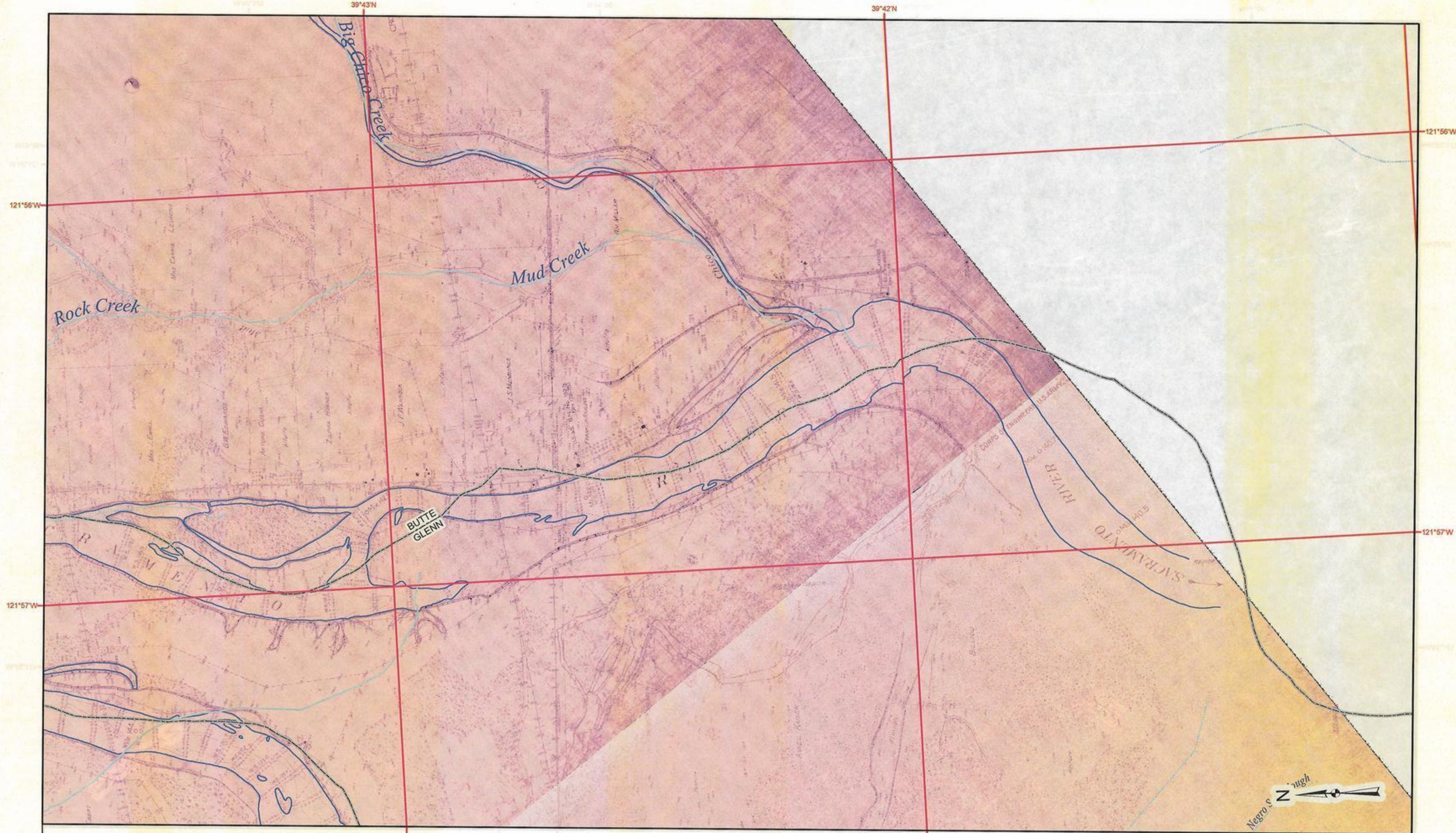


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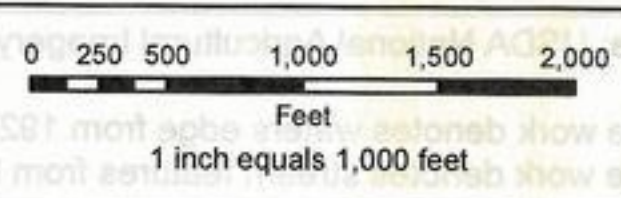


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Sheet #
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Sacramento River (circa 1923)
From Red Bluff to Chico Landing
U.S. Army Corp of Engineers Map Base

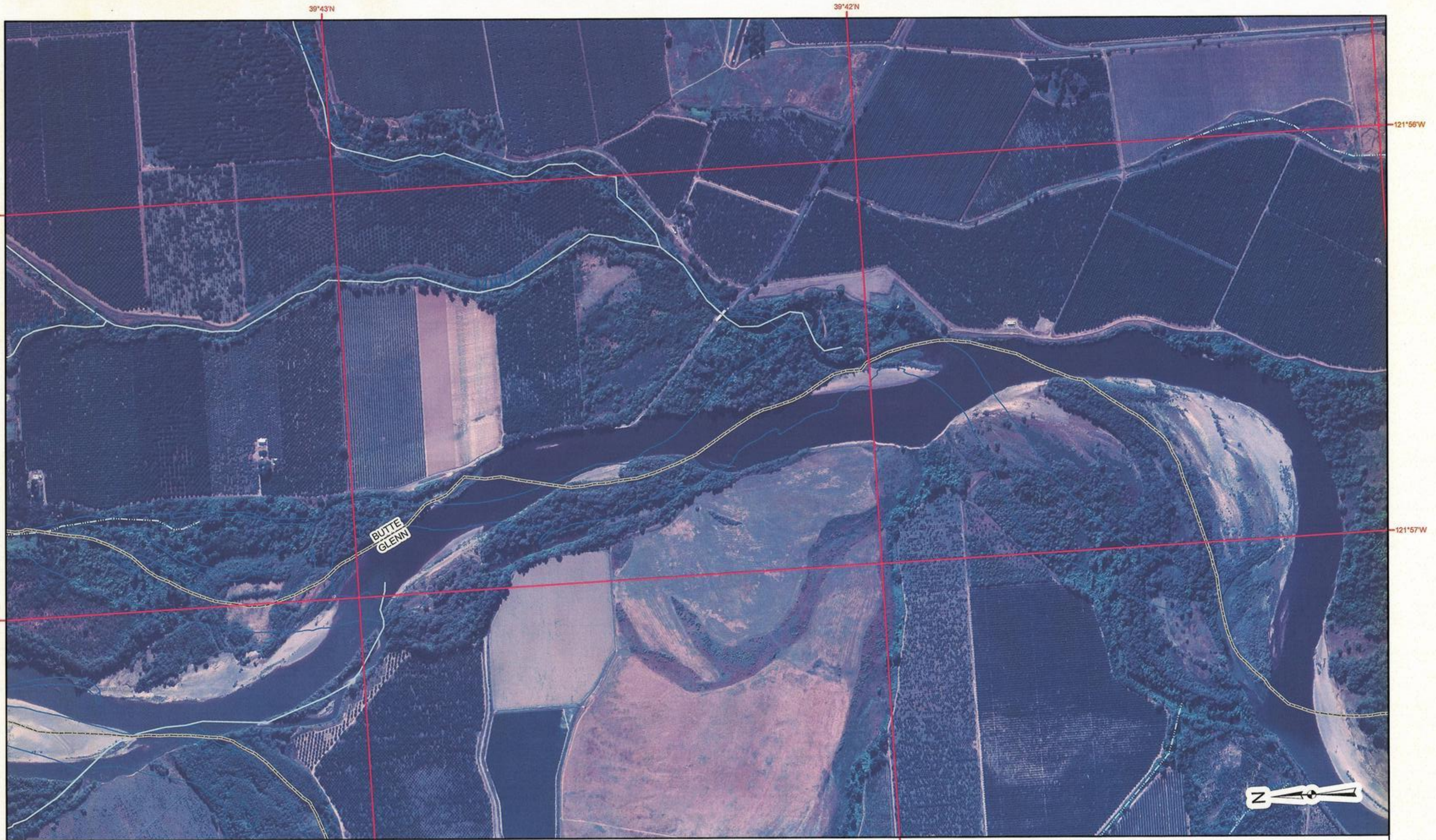


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Sheet #
18



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Sheet #
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Sacramento River (2005)
From Red Bluff to Chico Landing
2005 Aerial Photo Base

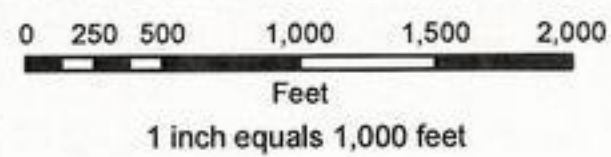


Photo Source: USDA National Agricultural Imagery Program (NAIP)
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