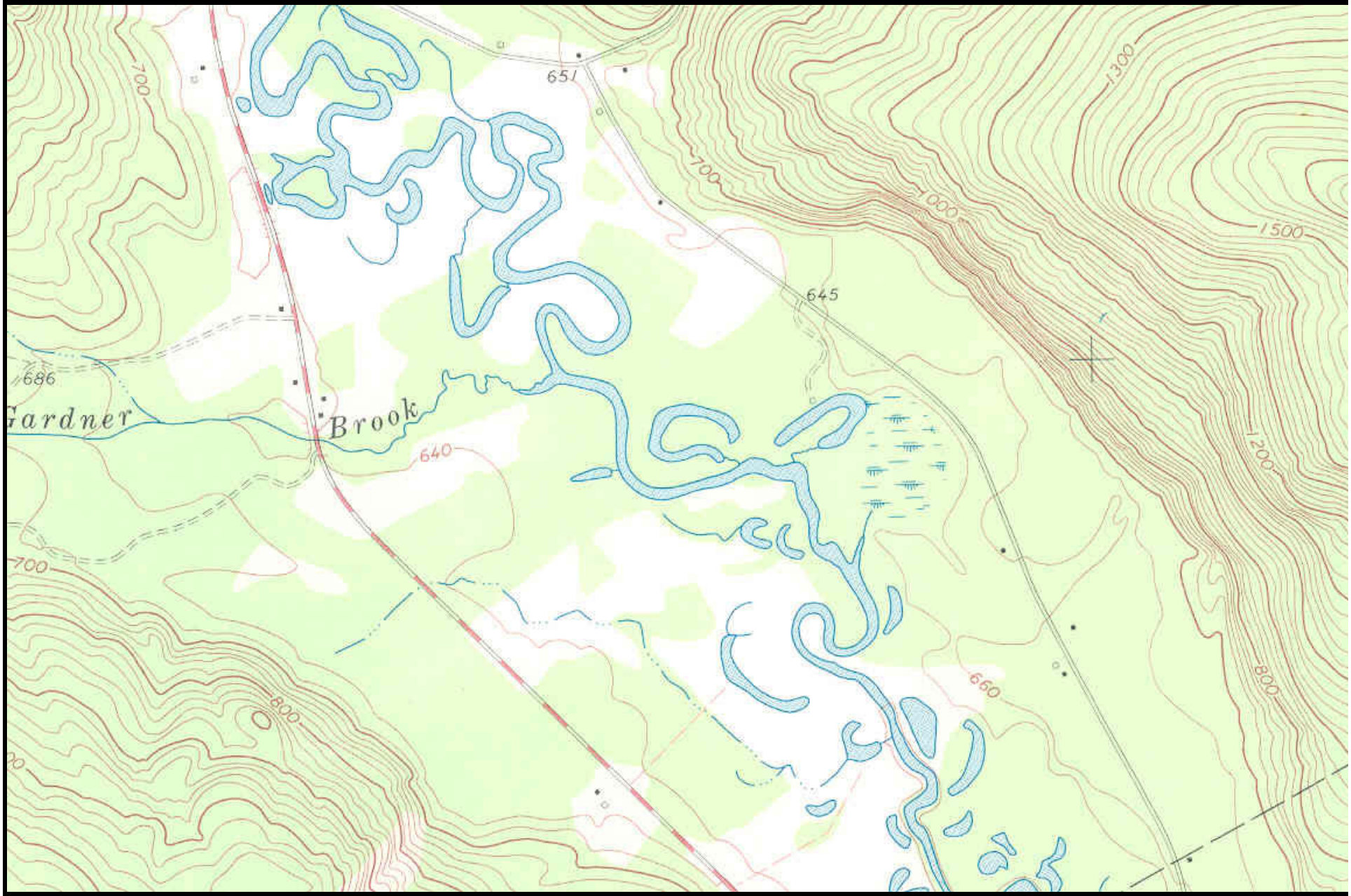
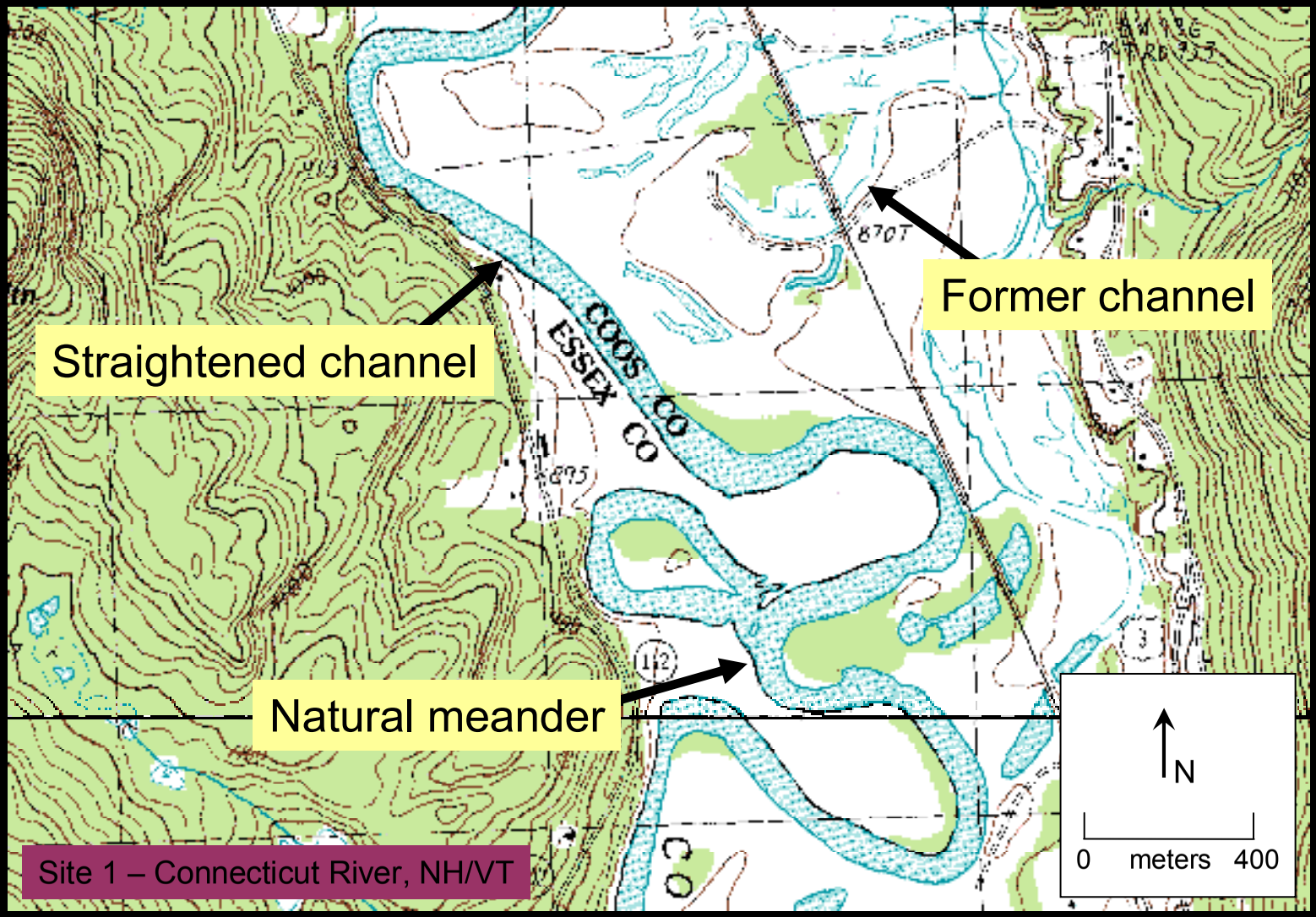
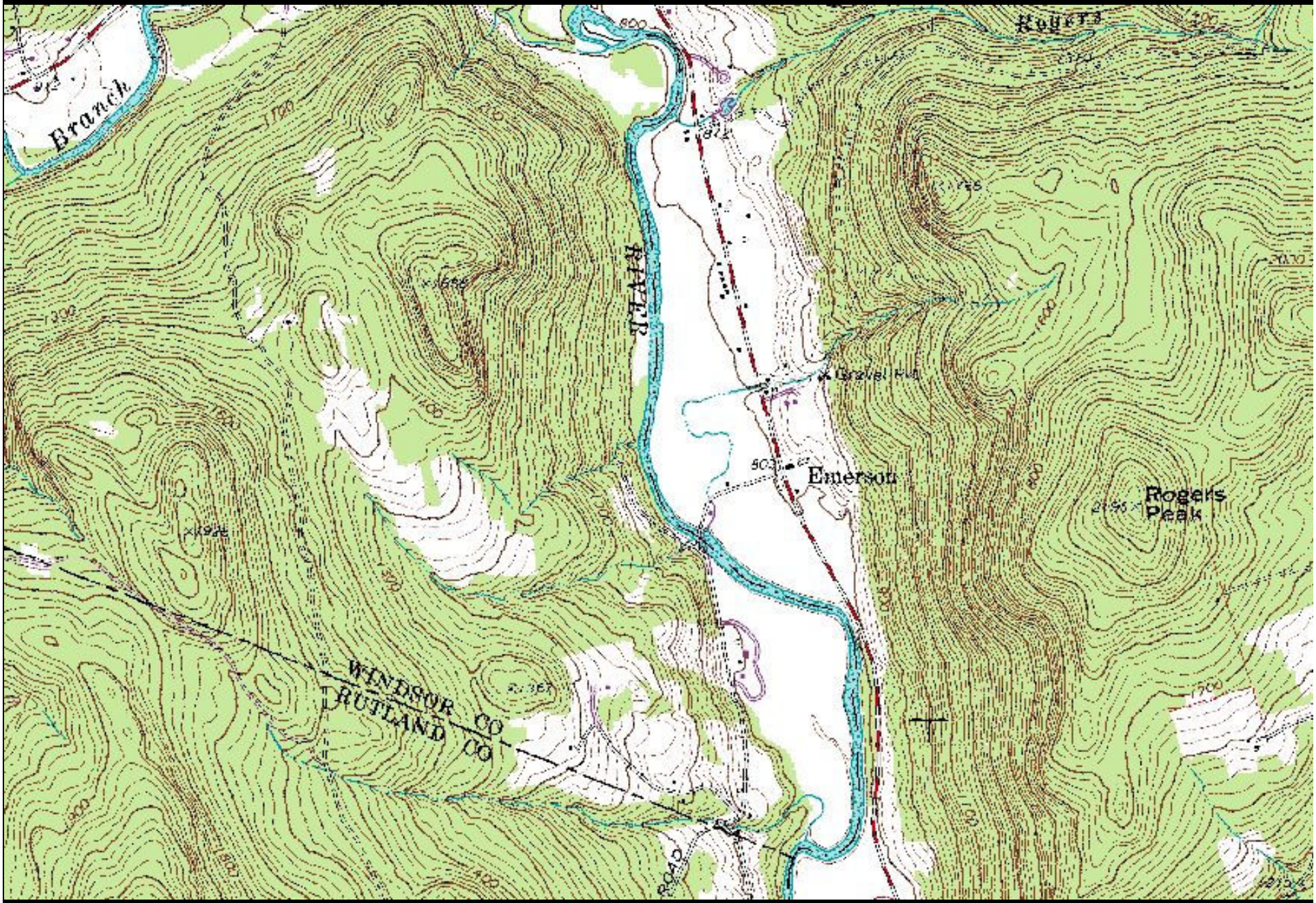

651
700
1300
1000
1500
645
686
Gardner
Brook
640
1200
700
800
660
800



Site 1 – Connecticut River, NH/VT


Branch
Roberts
RIVER
Gravel Pit
Emerson
Rogers Peak
WINDSOR CO
RUTLAND CO
ROAD

Mohawk River Confluence - 1955

Mohawk River Confluence - 2003

Reasons for Channelization

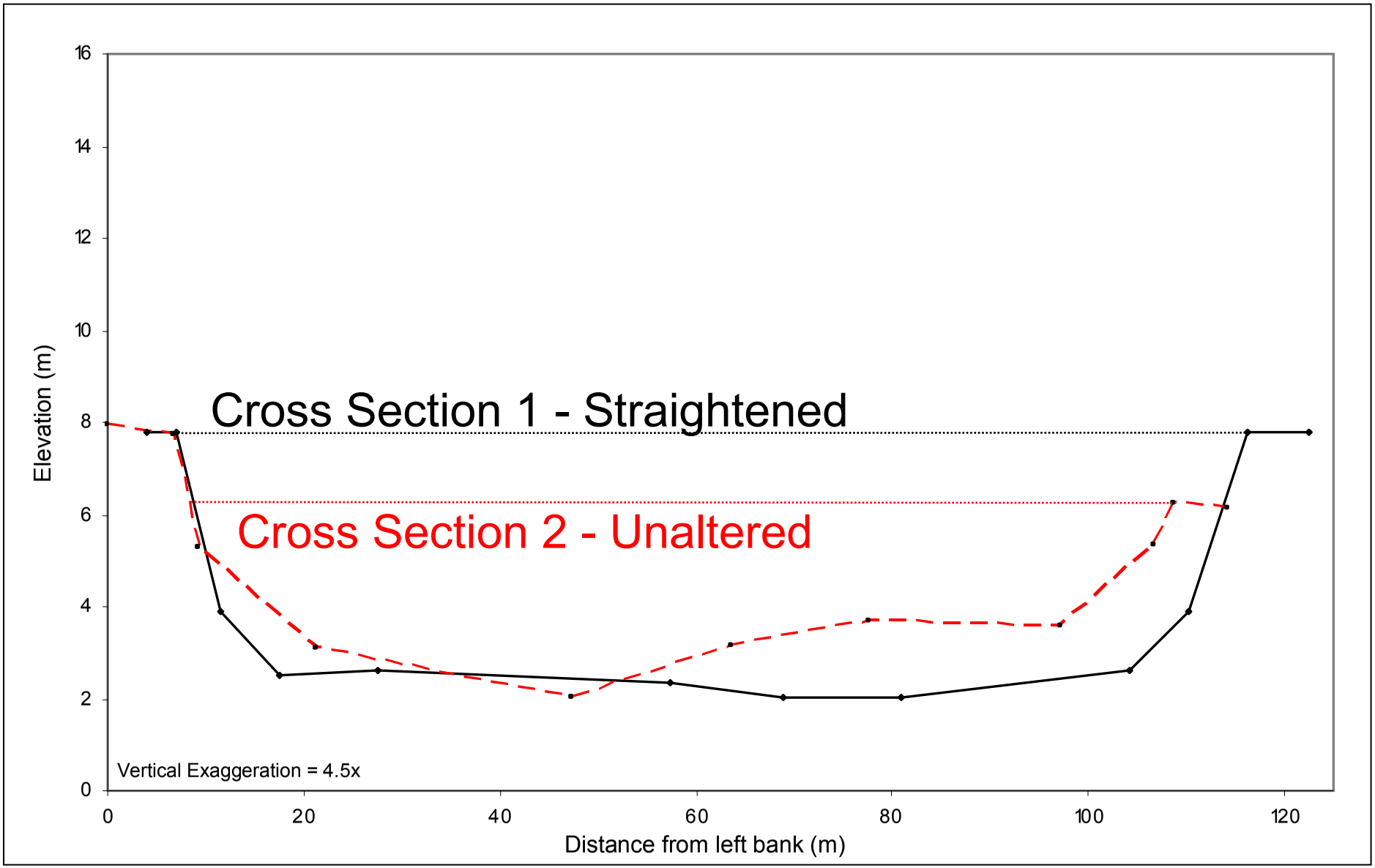
- Flood Control
- Agriculture
- Irrigation
- Drainage
- Transportation
- Power Generation
- Log Drives

26,550 km channelized in U.S. prior to 1977 (Leopold, 1977)

Log drive in 1914 – northern Connecticut River

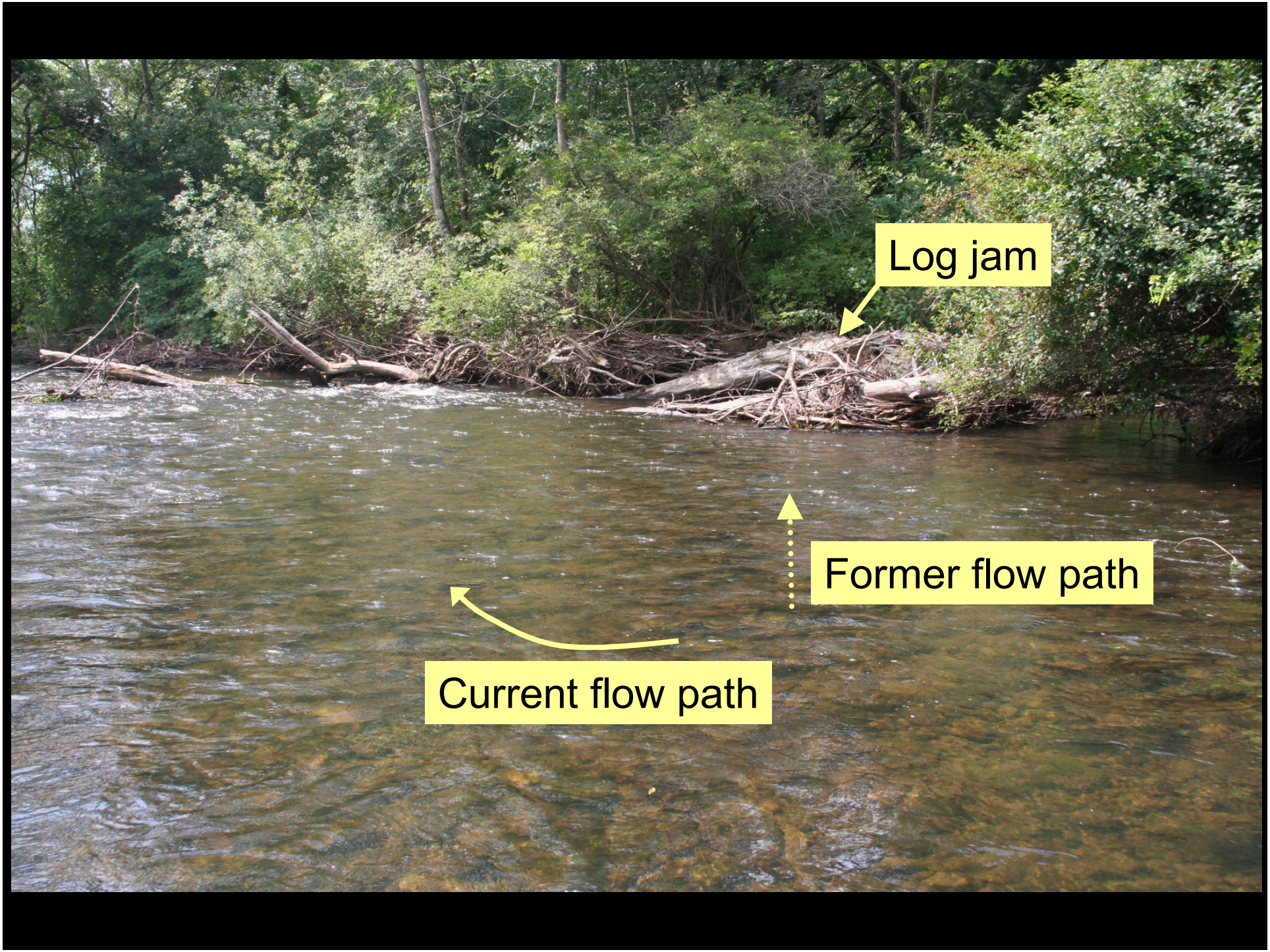
From Gove (2003)

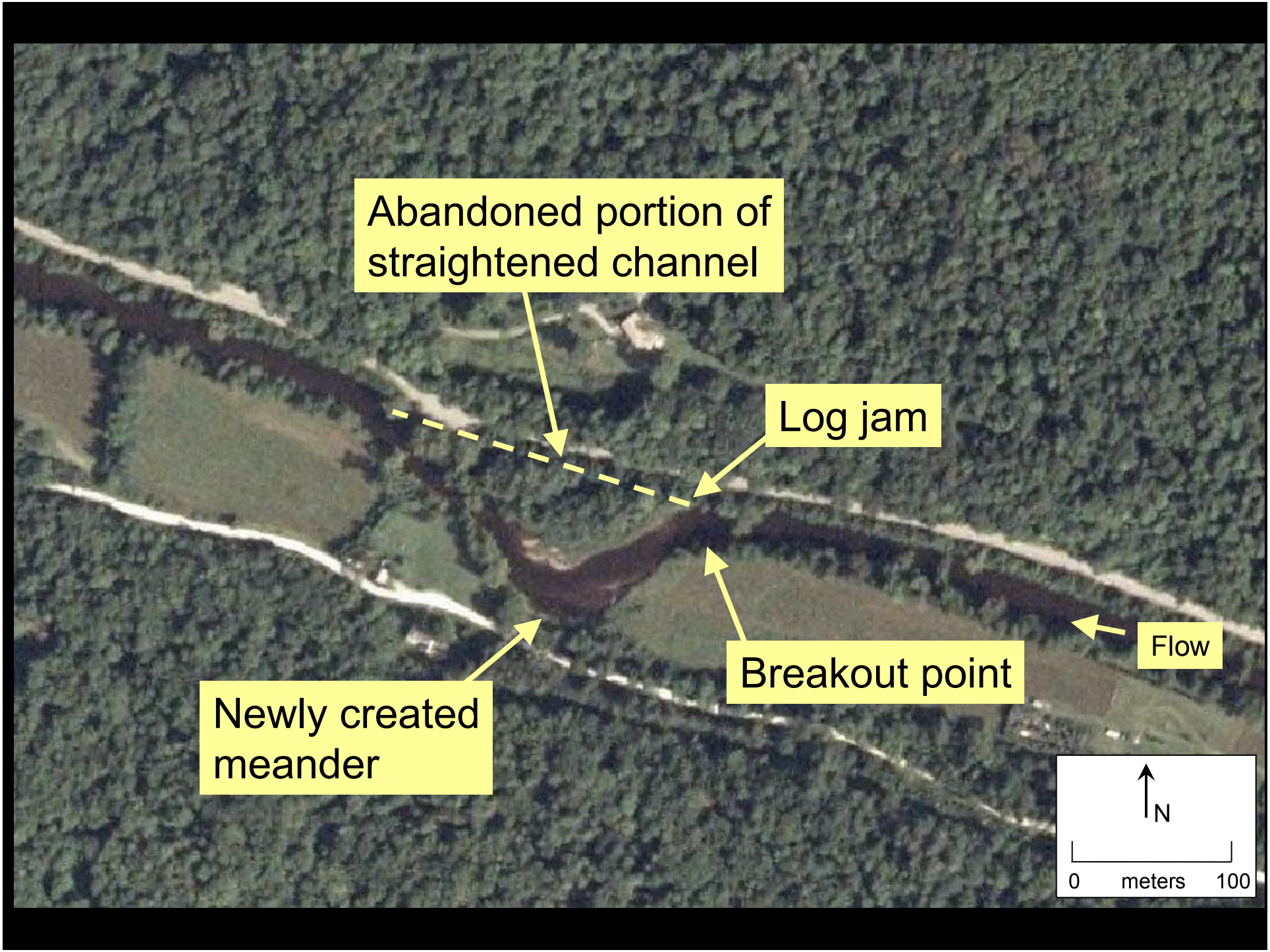
An 1863 New Hampshire statute gave the Upper Connecticut River and Lake Improvement Company permission to "remove the boulders and rocks and all other obstructions from, and enlarge the channel of" the Connecticut River.


Cross Section 1 - Straightened
Cross Section 2 - Unaltered
Vertical Exaggeration = 4.5x
Elevation (m)
Distance from left bank (m)
0
2
4
6
8
10
12
14
16
0
20
40
60
80
100
120

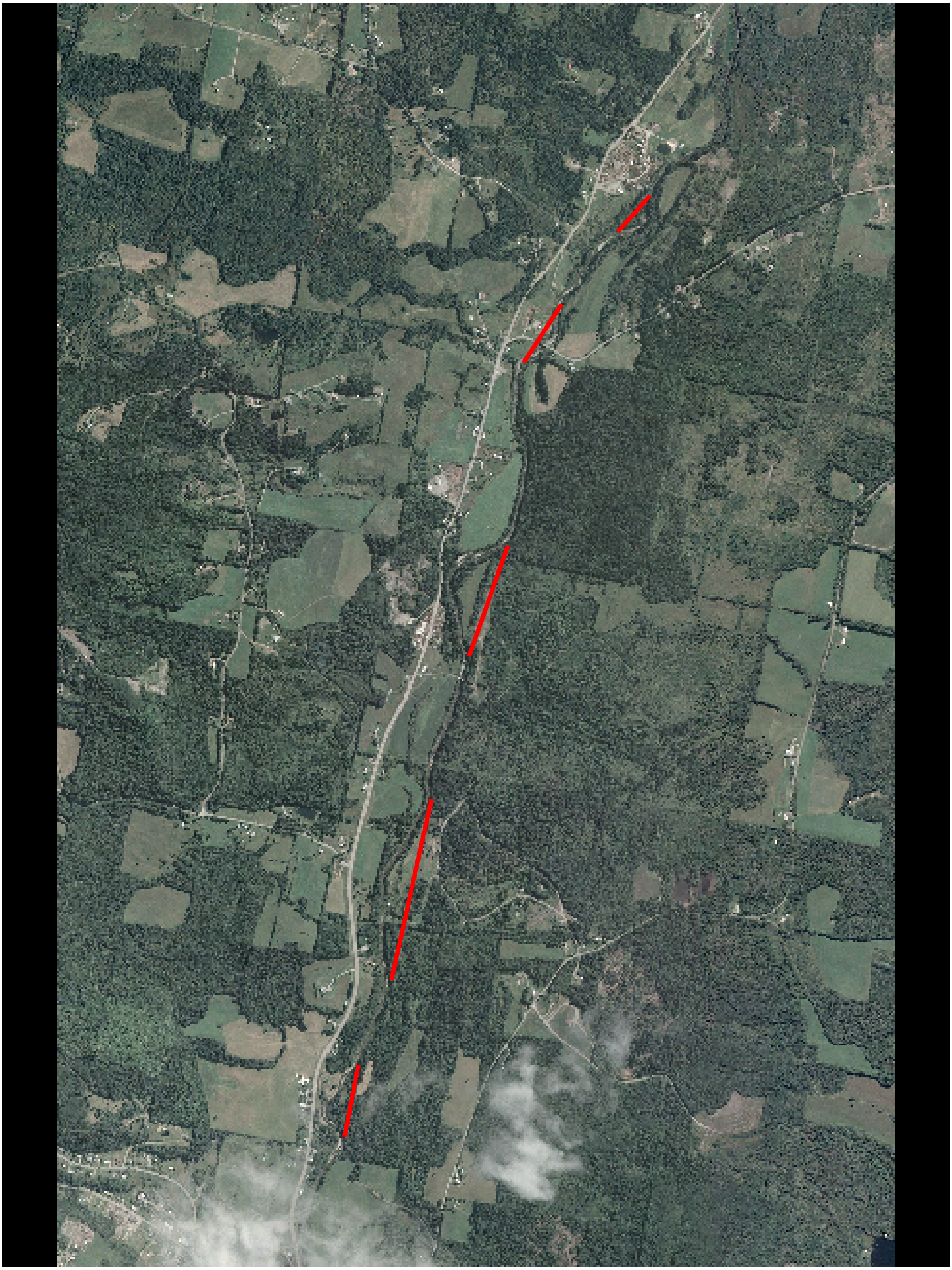
Meanders naturally reform by:

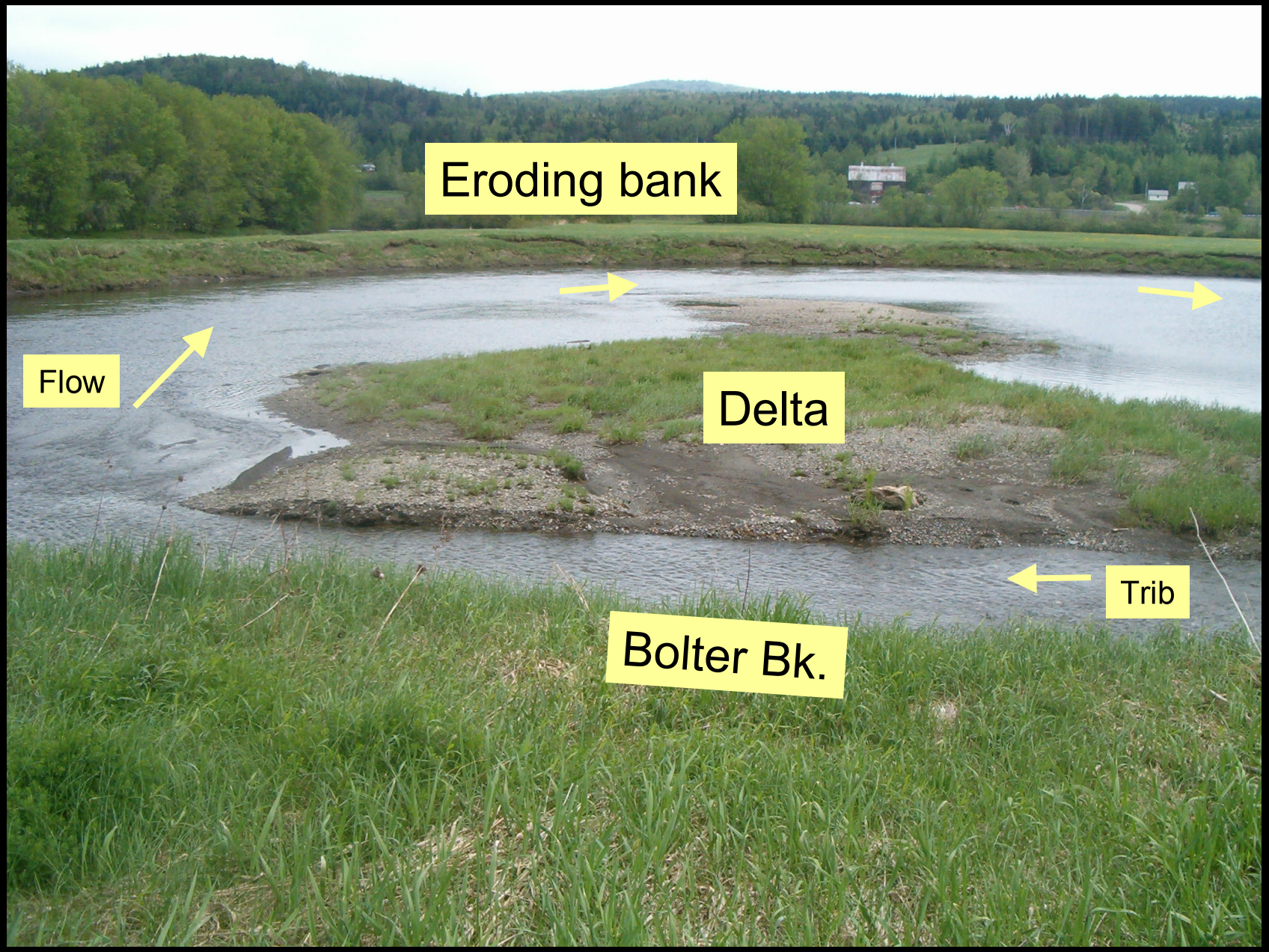
- Breakouts
- Buildouts

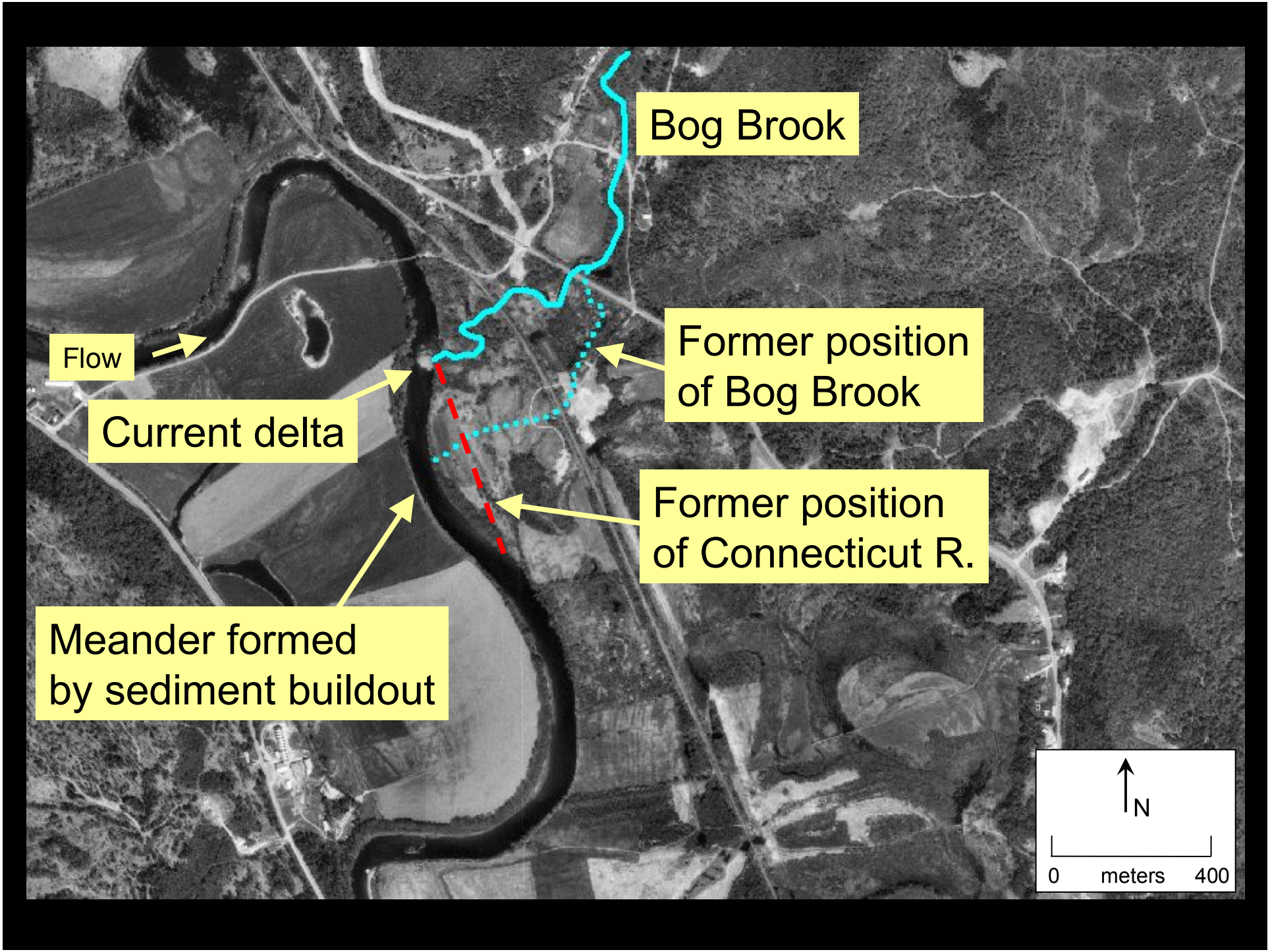

Log jam
Former flow path
Current flow path

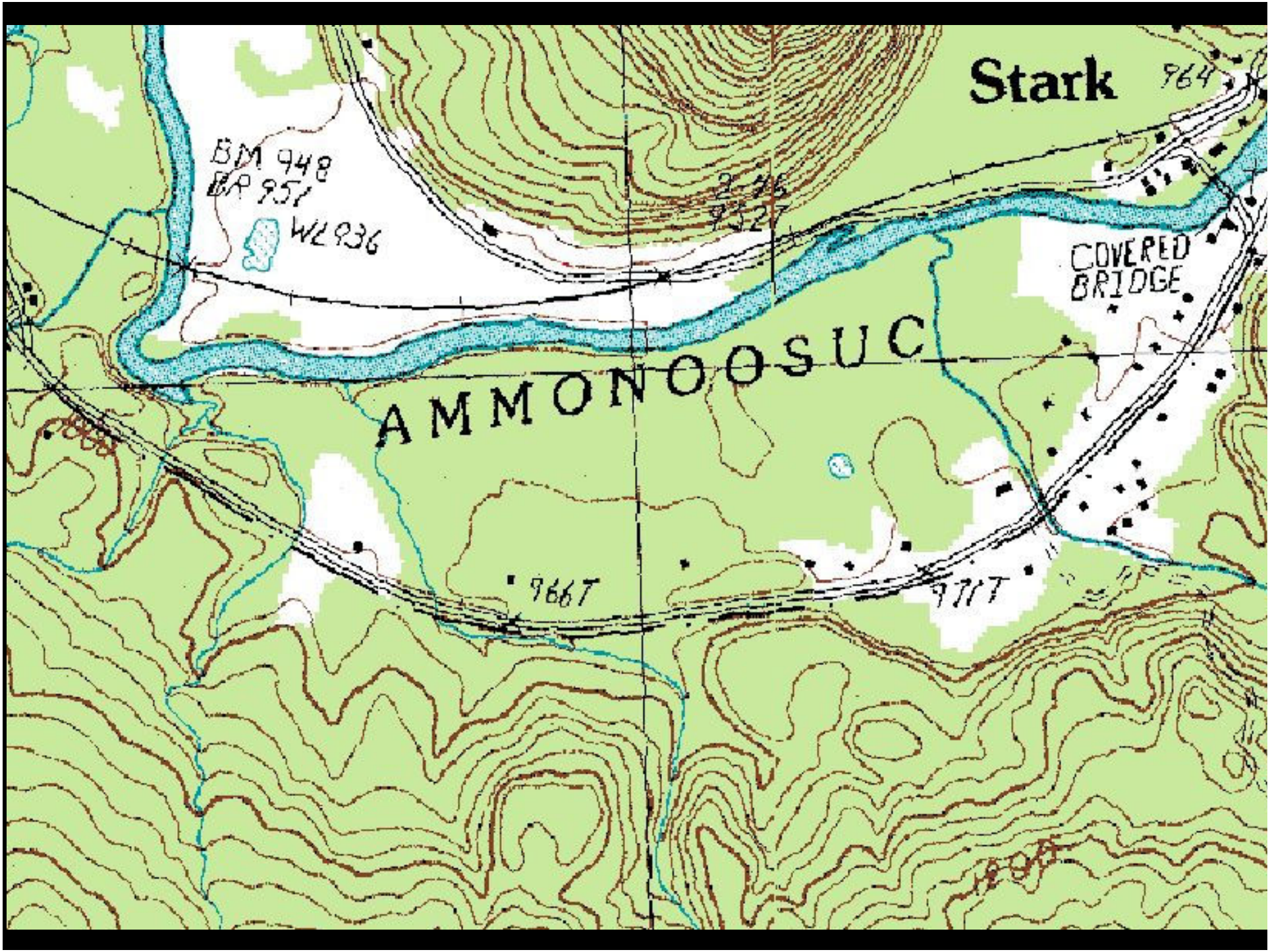

Abandoned portion of straightened channel
Log jam
Breakout point
Flow
Newly created meander
N
0
meters
100

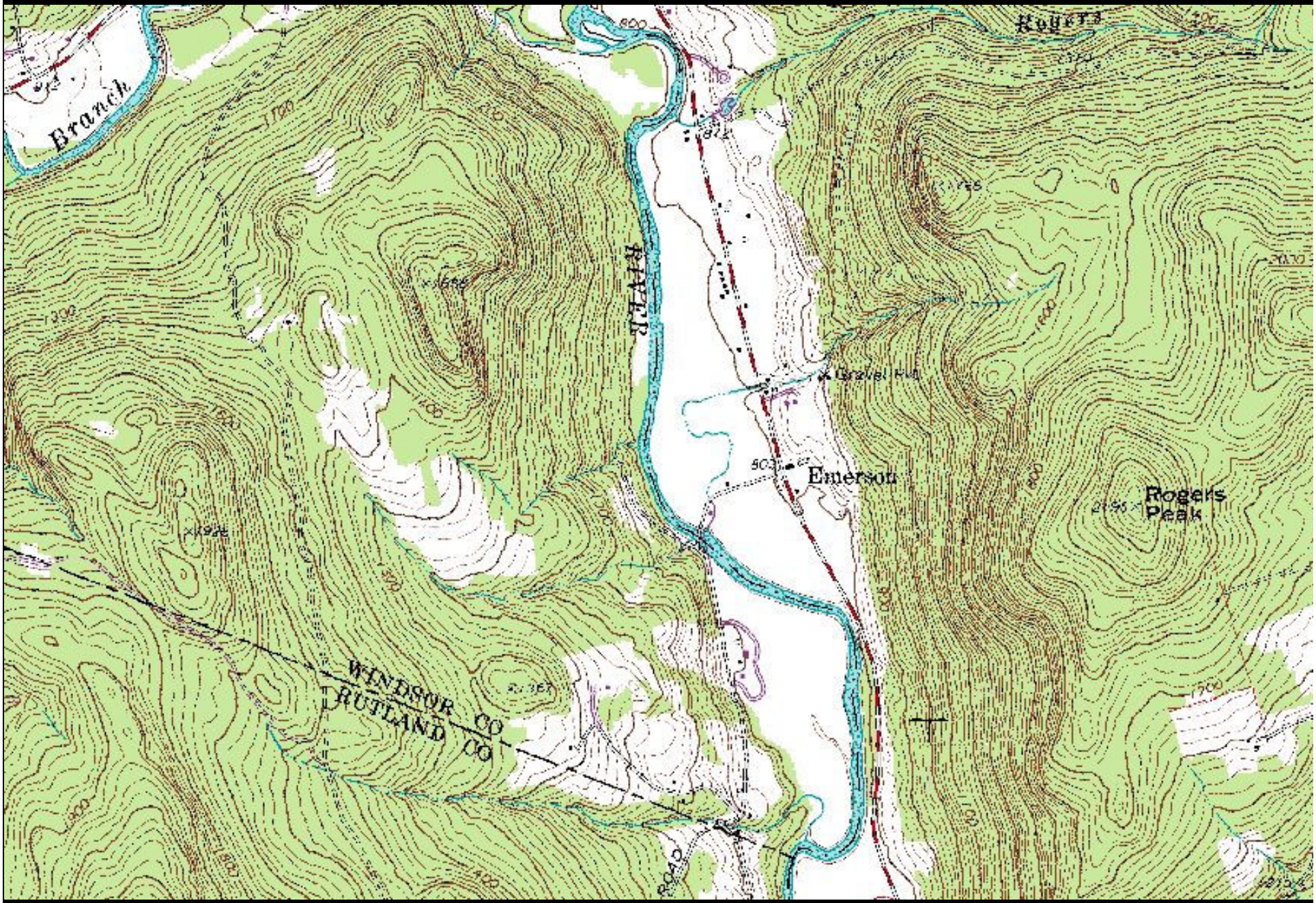
Lake Abenaki Dam – 1929 (Mohawk River)




Eroding bank
Flow
Delta
Trib
Bolter Bk.


Bog Brook
Flow
Current delta
Former position
of Bog Brook
Former position
of Connecticut R.
Meander formed
by sediment buildout
N
0
meters
400


Stark
964
BM 948
BR 951
WL 936
COVERED
BRIDGE
AMMONOOSUC
966T
971T


Branch
Roberts
RIVER
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Rogers Peak
WINDSOR CO
RUTLAND CO
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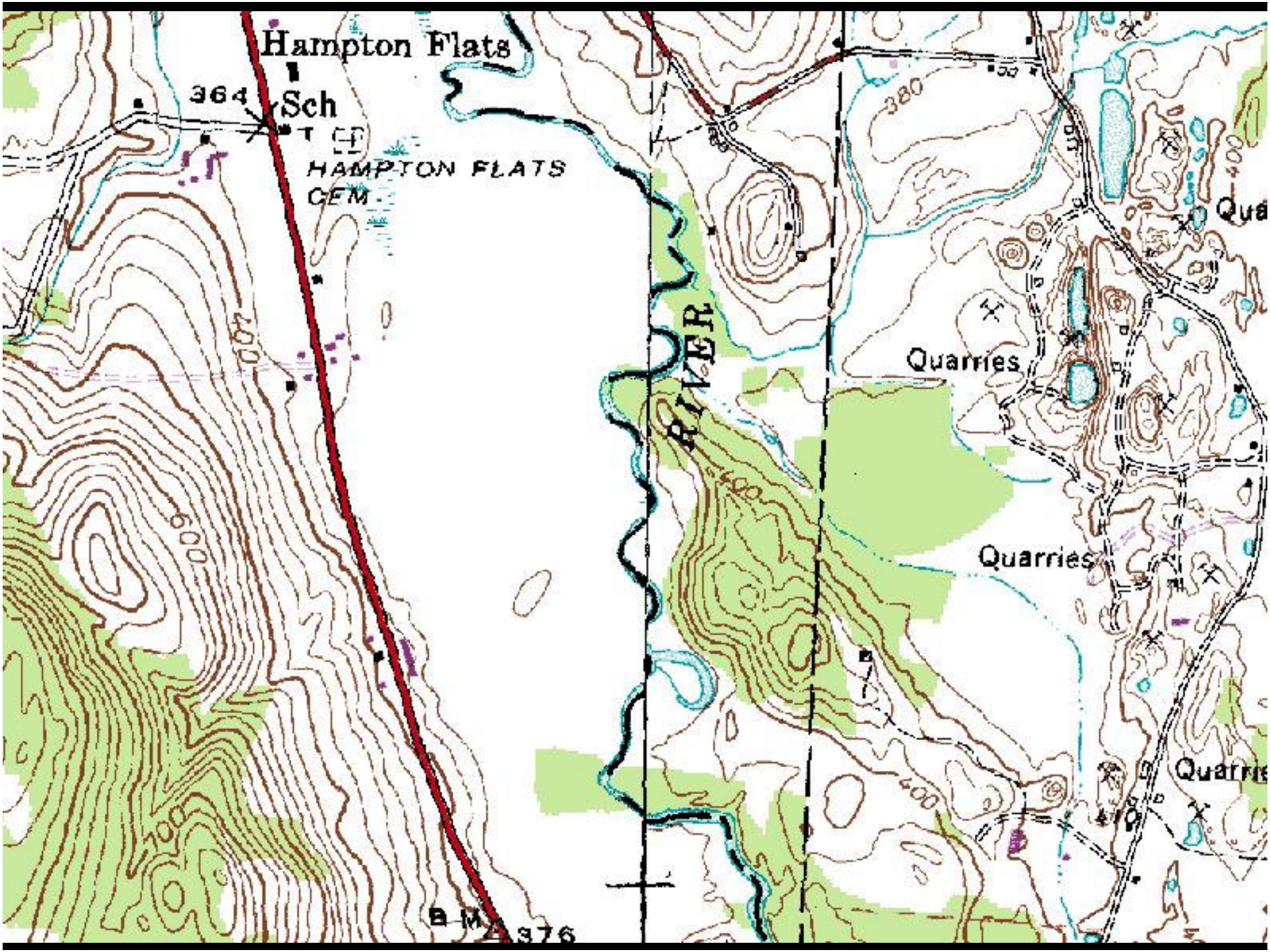
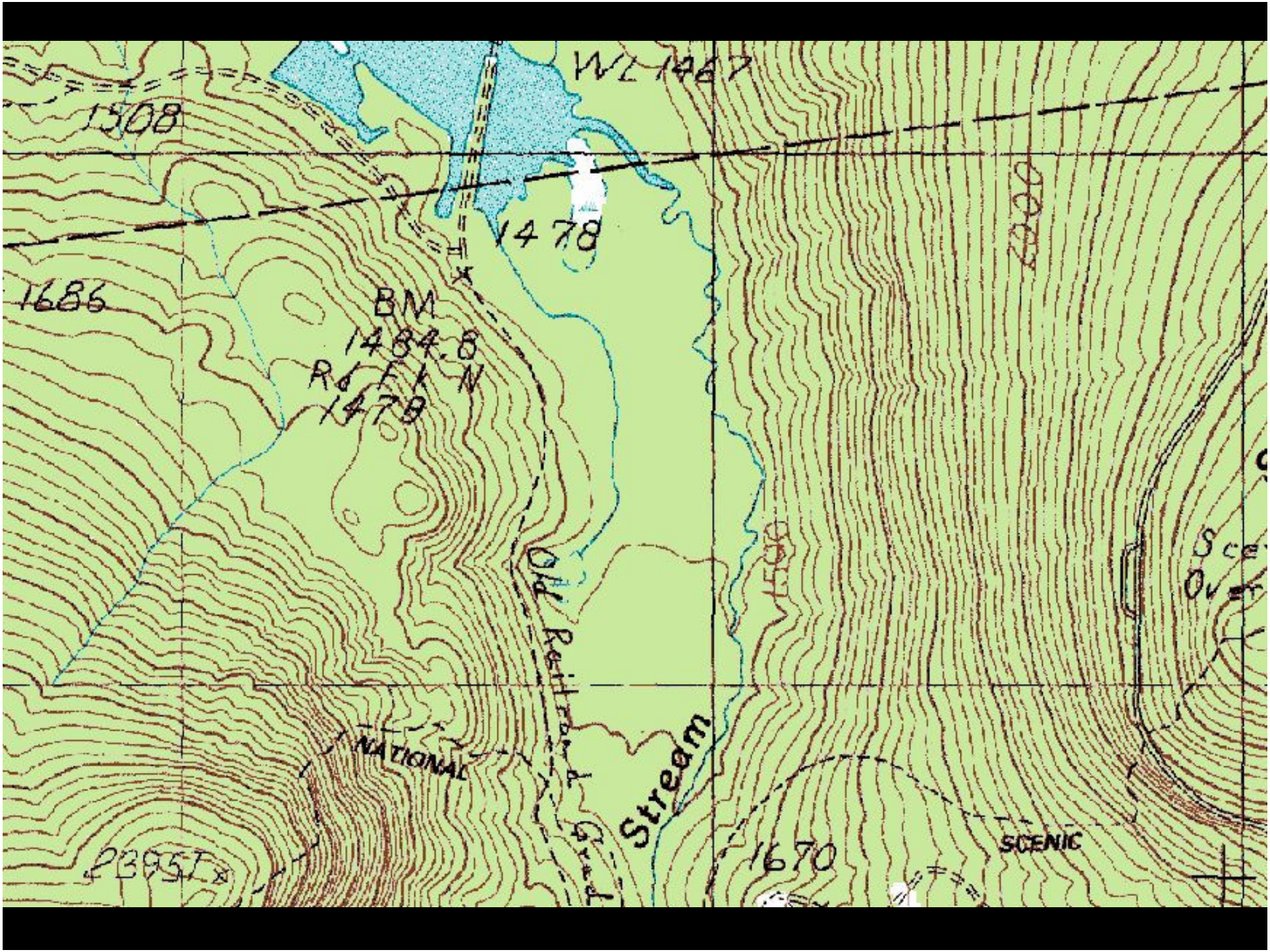

Hampton Flats
364
Sch
HAMPTON FLATS
CEM
RIVER
Quarries
Quarries
Quarries
380
400
600
B M
376


WL 1467
1508
1478
1686
BM
1484.8
Rd Fk N
1479
Old Railroad Grade
Stream
NATIONAL
SCENIC
1670
2395T
2000
1500

How Does This Apply To River Management and Restoration?