



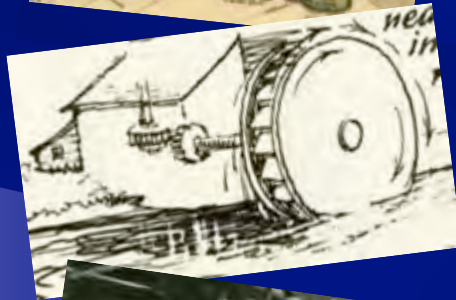


# The South River's course – Ashfield Lake to the Deerfield River



# Indigenous Inhabitants

## Paths and Settlements



### 18<sup>th</sup> Century

Means to a simple living



### 19<sup>th</sup> Century

Harnessing the river's power for manufacturing



### 20<sup>th</sup> Century

Constraining a nuisance



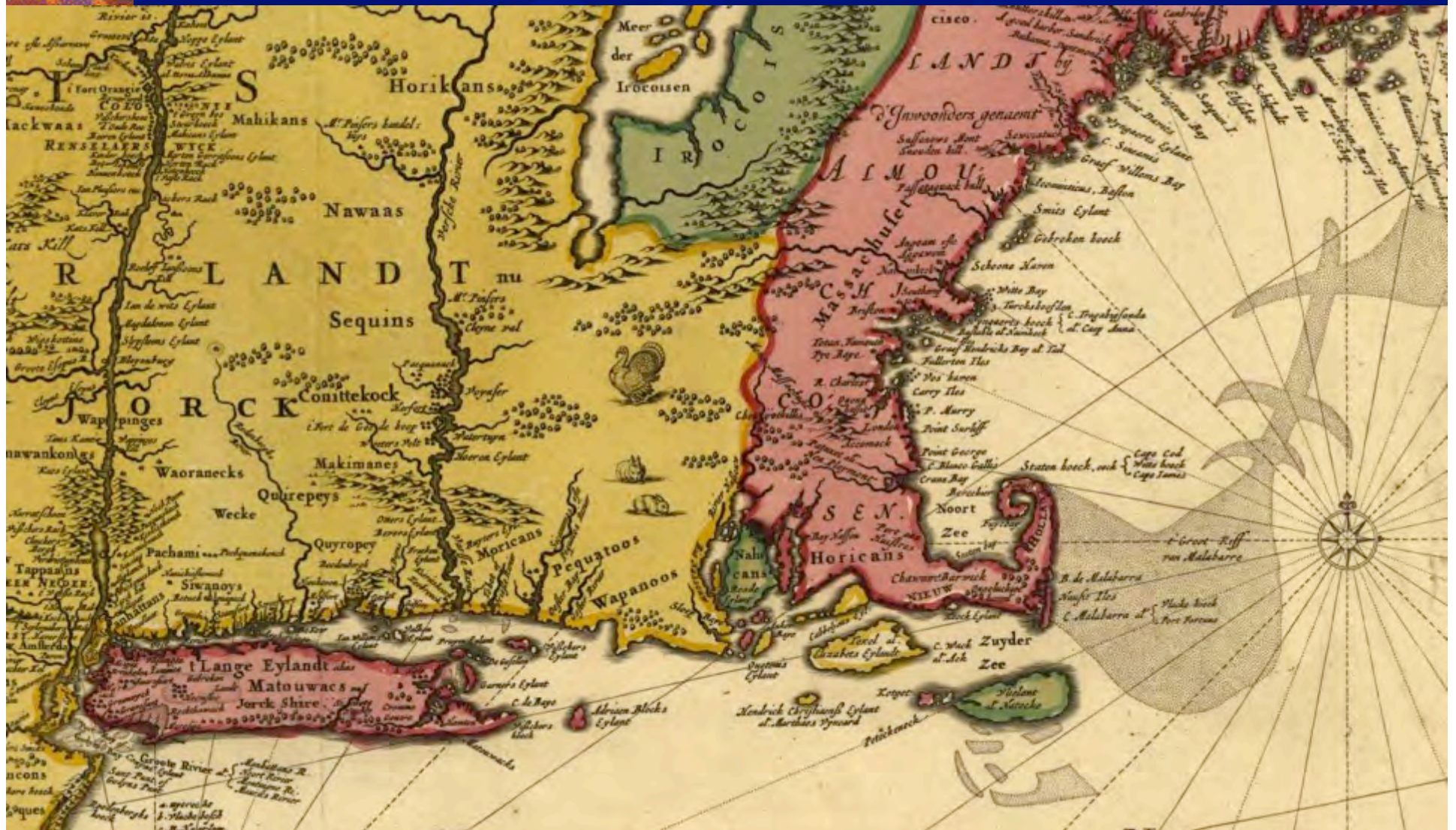
### 21<sup>st</sup> Century

Reaching a better understanding?



# Indigenous Inhabitants

*Settlements and paths. Relation to the river.*





# 18<sup>th</sup> Century

Roads & farms on the hills, mills on the river





# Conways Road's & Mills



# Conway's First Gristmill, 1767

"High Street"  
(now Upper Baptist Hill Road)

Current location of the  
Post Office  
(River Street not yet built)

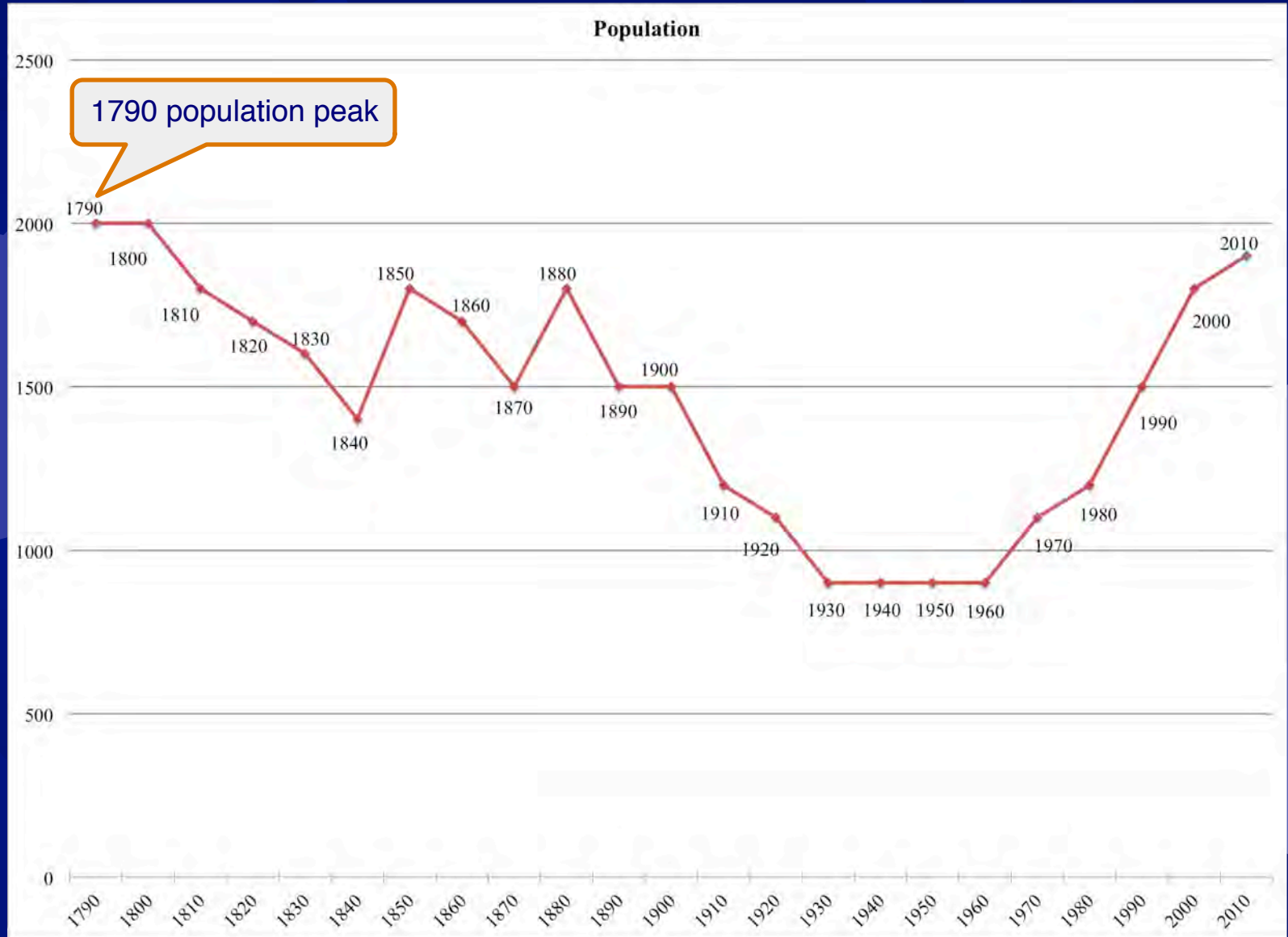
**Caleb Sharp's Gristmill**

School Street access from  
Pumpkin Hollow via Maple Street



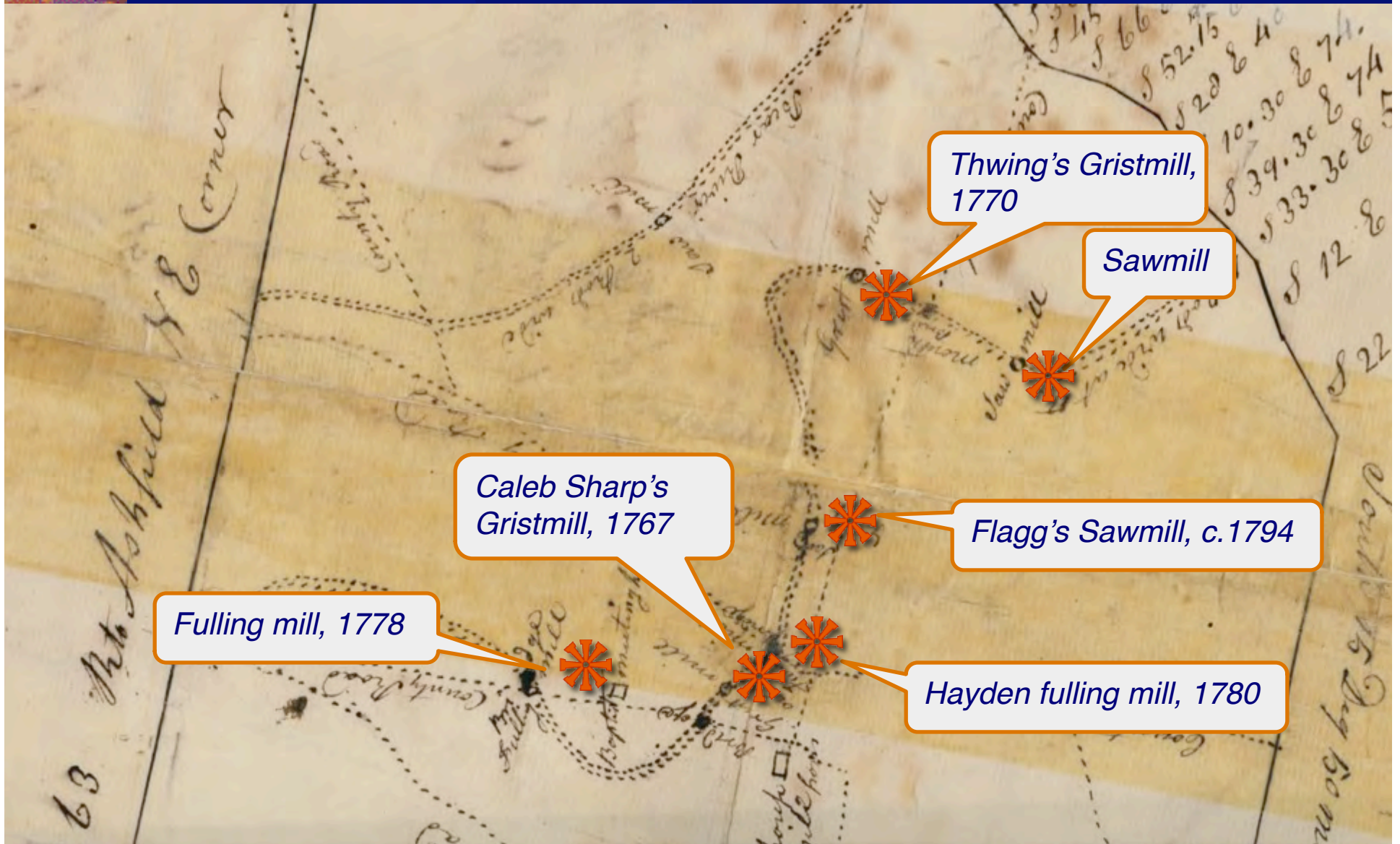


# Conway's population peak: 1790





# South River Mills in 1794





# The longest running mill in Conway

On Shelburne Falls Road, c.1794 – 1950



Flaggs Mill  
painted by Oscar Anderson,  
1945



Photo from  
*Illustrated Conway*,  
1900



# 19<sup>th</sup> Century

Scaling-up industry through floods  
& drought

**1804**  
*Extreme event,  
New England*

**1821**  
*Severe hurricane,  
Southern New England*

**1876-77**  
*Drought*

**1895**  
*Heavy rain & snowmelt*

**1815**  
*Extreme event,  
New England*

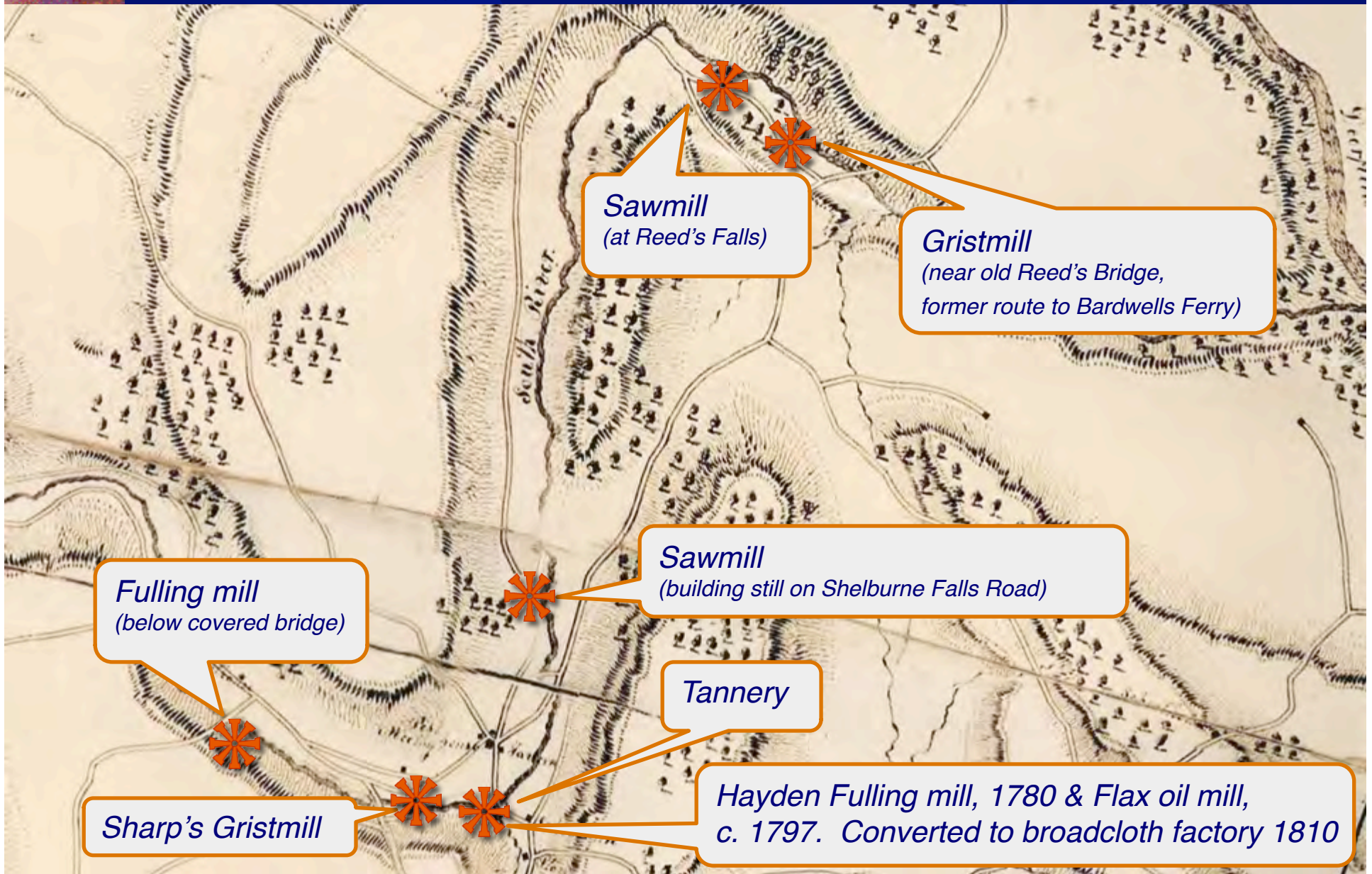
**1846**  
*Tropical storm,  
into Vermont*

**1878**  
*Heavy rain & snowmelt*

1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900



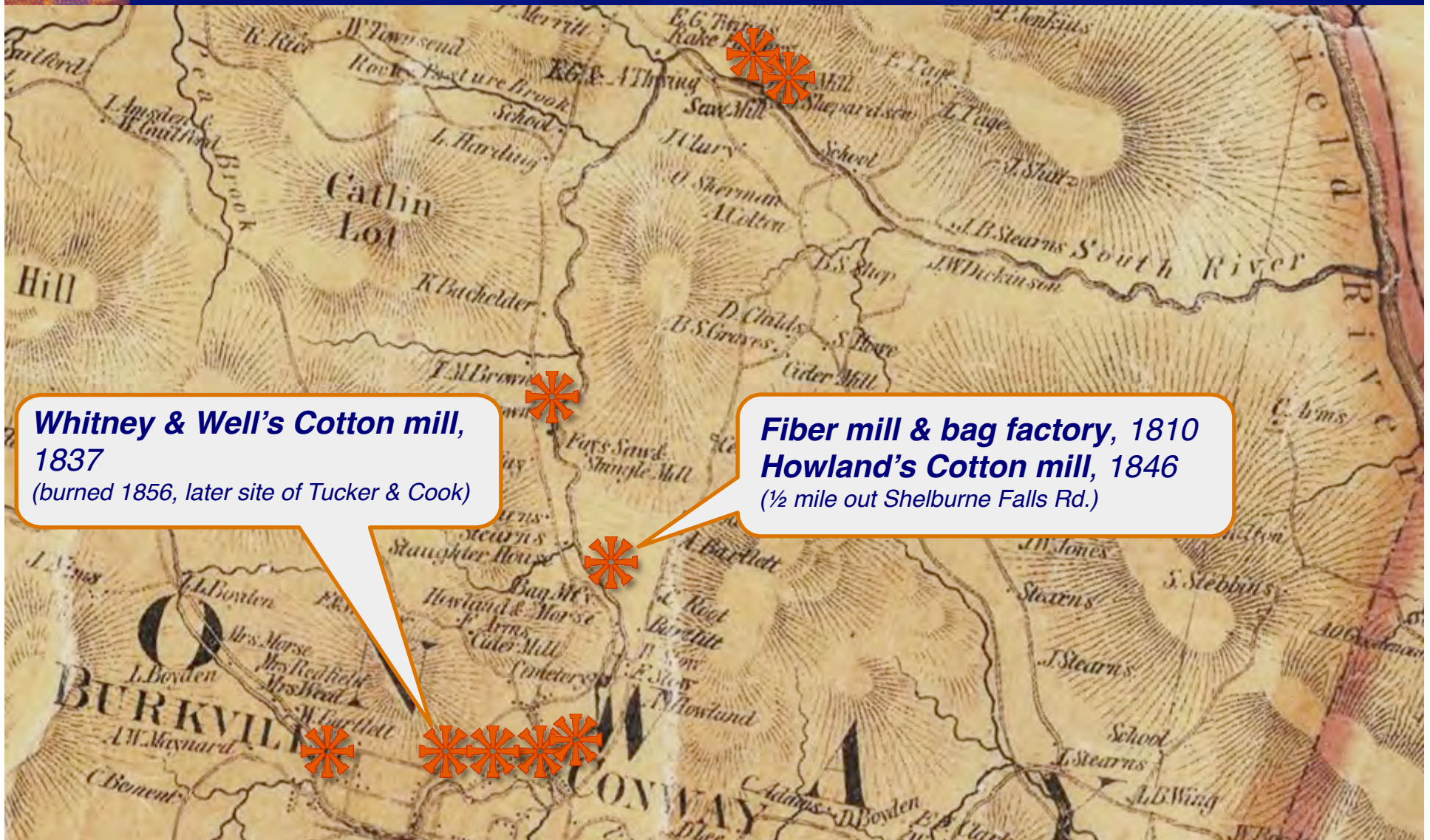
# South River Mills in 1830





# New Industry on the South River:

Larger scale cotton mills, run by outsiders, to produce goods for sale outside of Conway



**Whitney & Well's Cotton mill, 1837**  
(burned 1856, later site of Tucker & Cook)

**Fiber mill & bag factory, 1810**  
**Howland's Cotton mill, 1846**  
(1/2 mile out Shelburne Falls Rd.)



# New Industry on the South River

## **Burk's Woolen Mill**

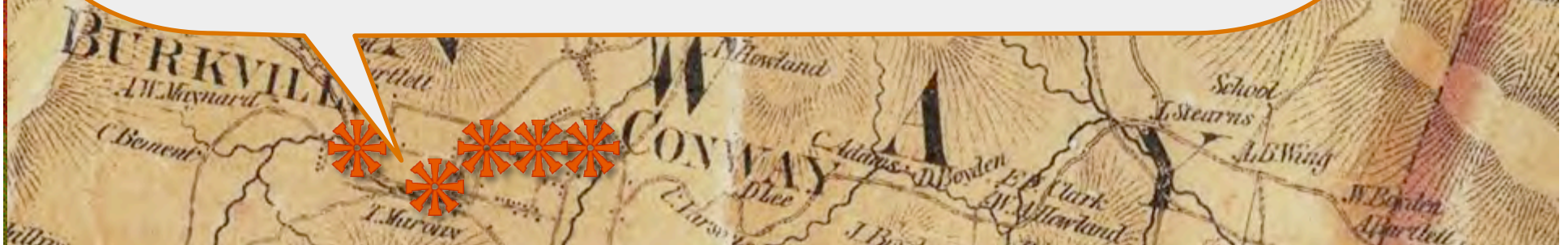
Built, 1837. Enlarged, 1846



*Delabarre's Woolen Mill, c. 1880*



*Now the site of OESCO*





# Conway's Mid-18<sup>th</sup> Century Mills & Factories

**Rake factory**

**Gristmill**

**Sawmill**

**Sawmill adds  
Shingle factory, c. 1854**

**Stearn's Slaughter House, c. 1854**

**Fiber mill & bag factory, 1810  
Howland's cotton mill, 1846**

**Clapp's Tannery**

**Fulling mill**

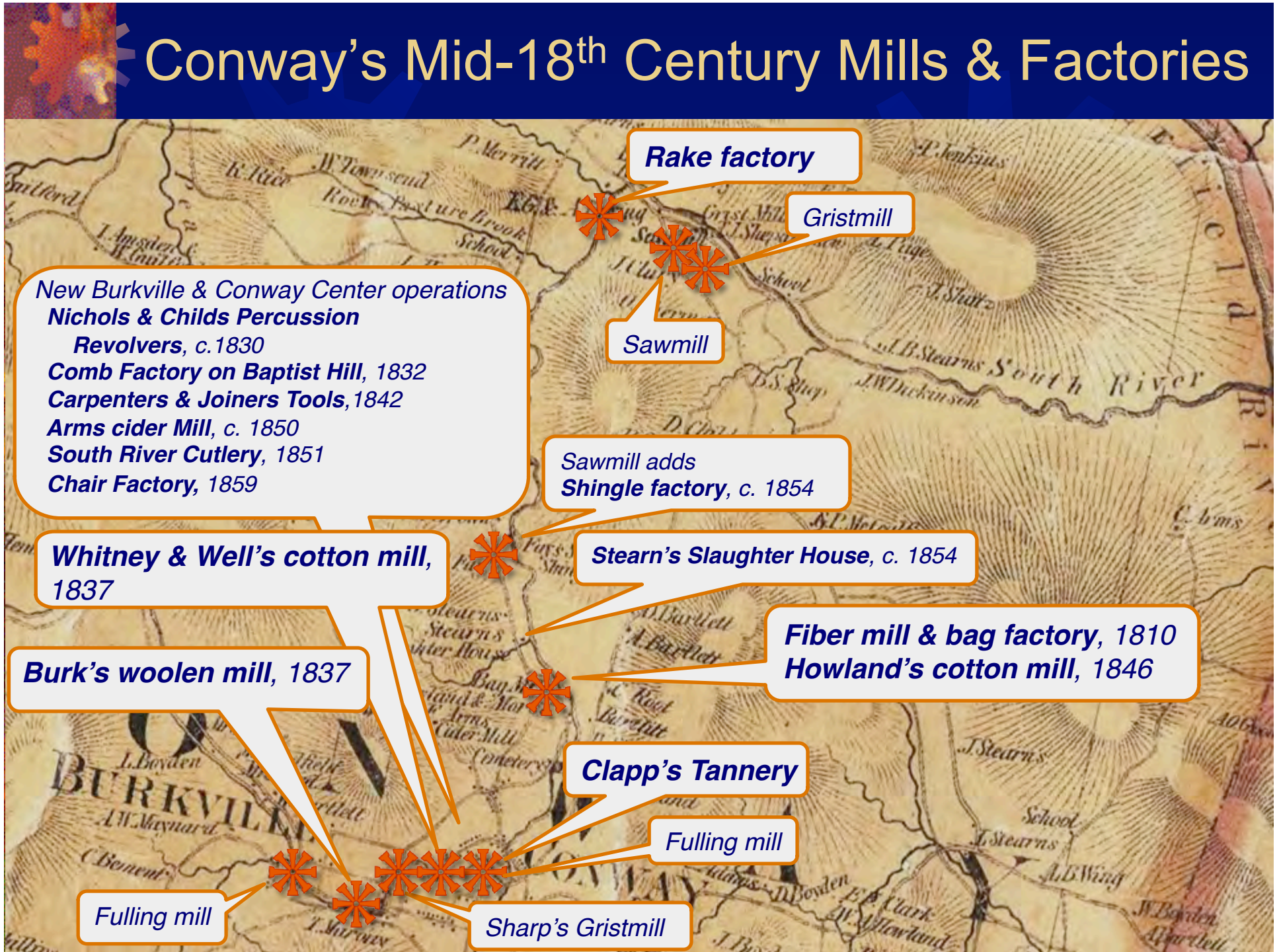
**Sharp's Gristmill**

**New Burkville & Conway Center operations  
Nichols & Childs Percussion  
Revolvers, c. 1830  
Comb Factory on Baptist Hill, 1832  
Carpenters & Joiners Tools, 1842  
Arms cider Mill, c. 1850  
South River Cutlery, 1851  
Chair Factory, 1859**

**Whitney & Well's cotton mill,  
1837**

**Burk's woolen mill, 1837**

**Fulling mill**





# Tucker and Cook

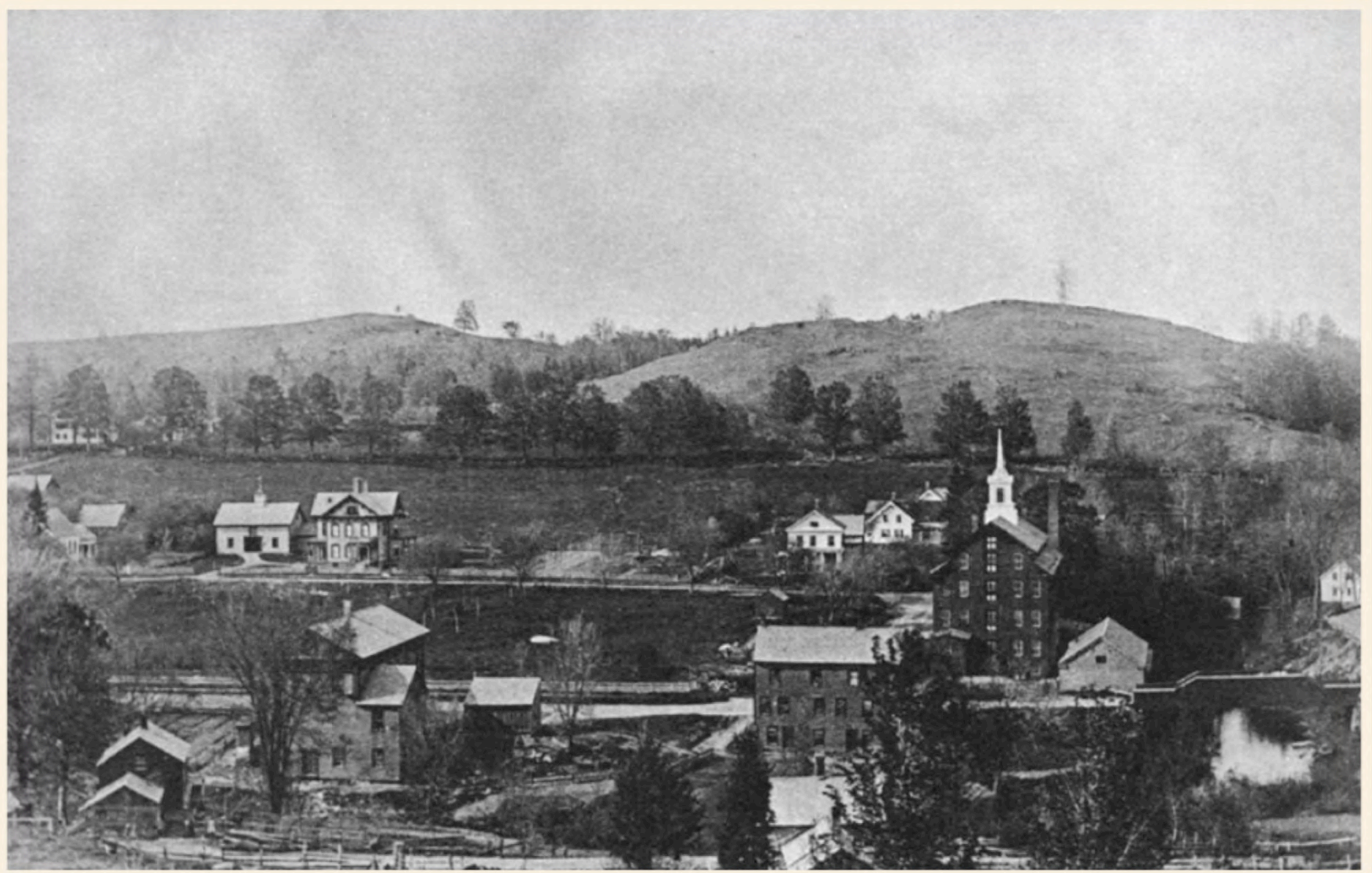
Buy Whitney & Wells mill in 1857 & Howland mill in 1861





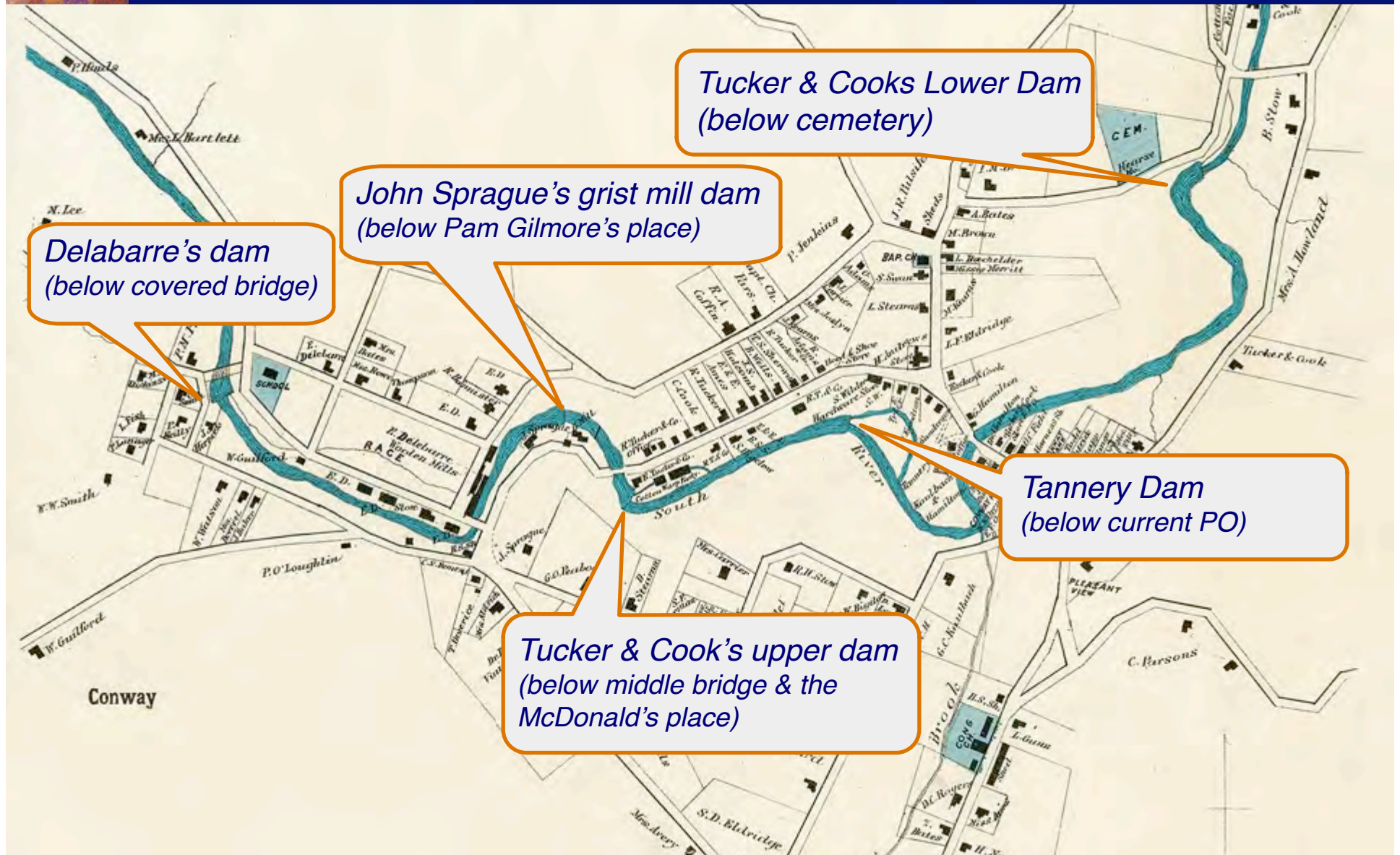
# Edward Delabarre arrives, 1867

Buys all that Burk owned



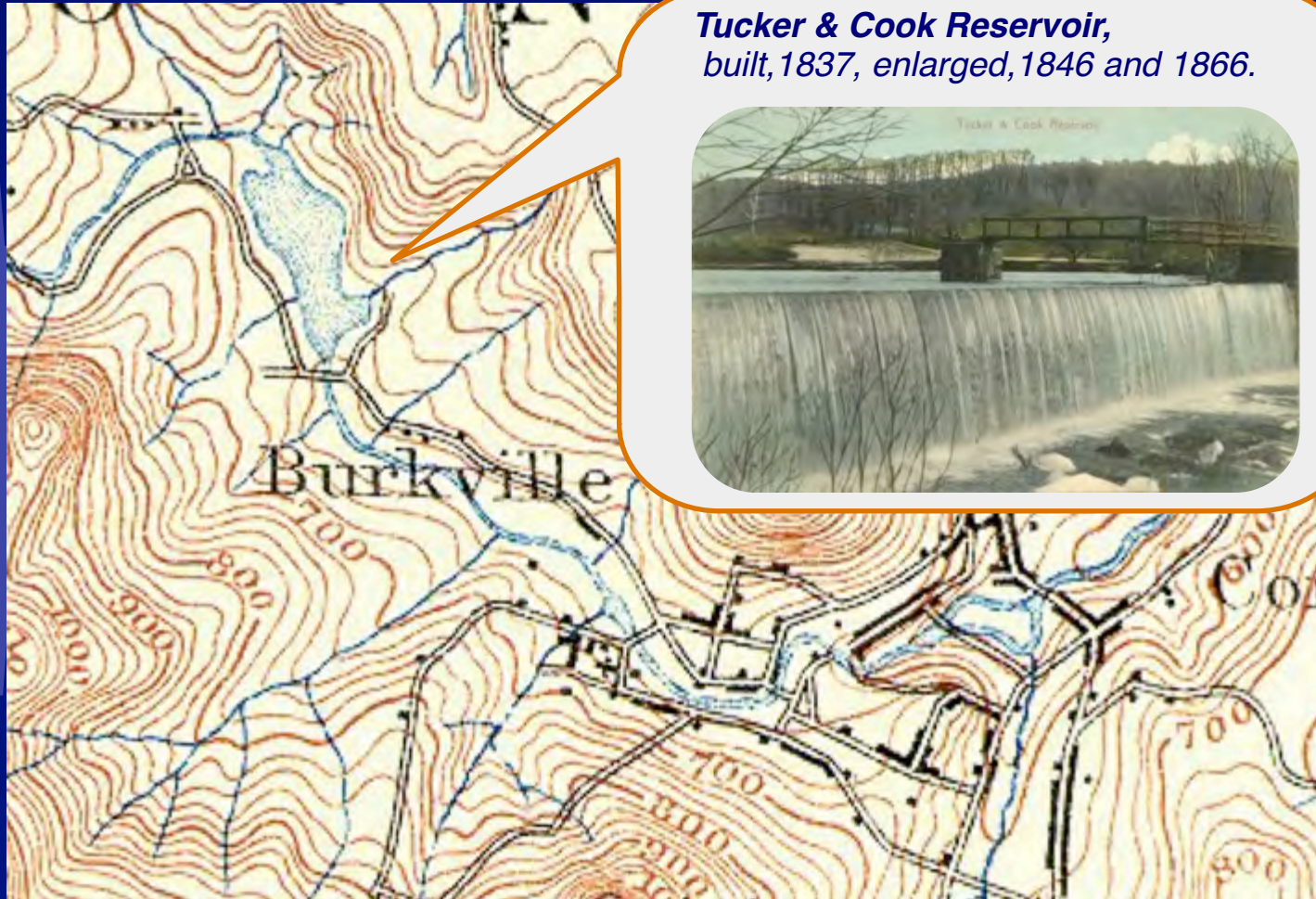
# Dams put the river to work

## 1871 Map of Conway Center





# A new, bigger dam, for increased production



**Tucker & Cook Reservoir,**  
built, 1837, enlarged, 1846 and 1866.

USGS topo map  
1886

*Gazette, September 2, 1867*

“There is no town in Franklin County that offers more encouraging inducements for the investment of limited capital than Conway. South river could naturally furnish a large amount of excellent power ... by the recent improvement made by Tucker & Cook. ...



# Boosterism



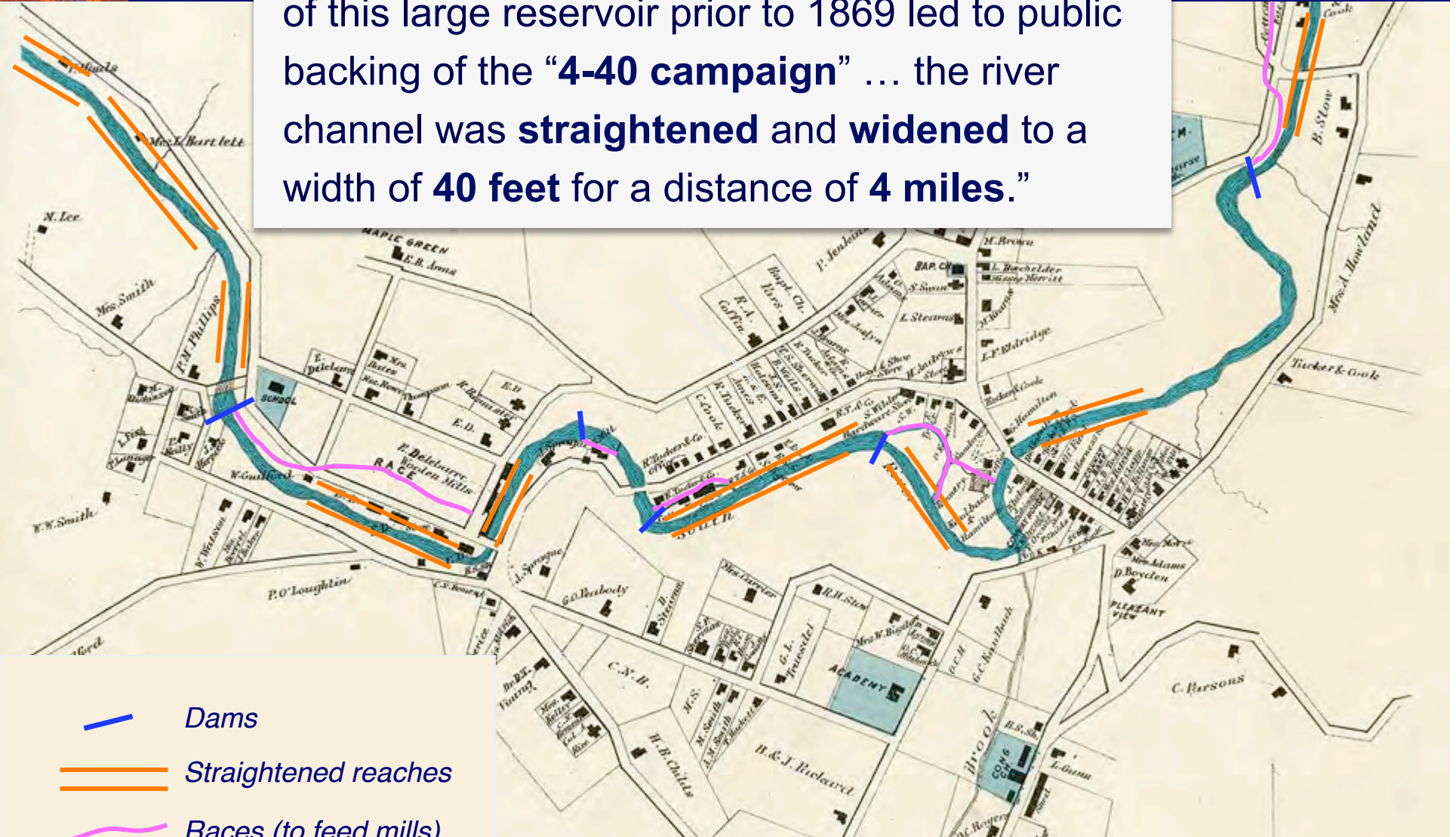
*Gazette, January 18, 1869 , continued*

“In the erection of their magnificent reservoir, the granite dam of which having been judged by competent engineers to be **infallibly permanent**, has increased that power to a very great amount. ..”



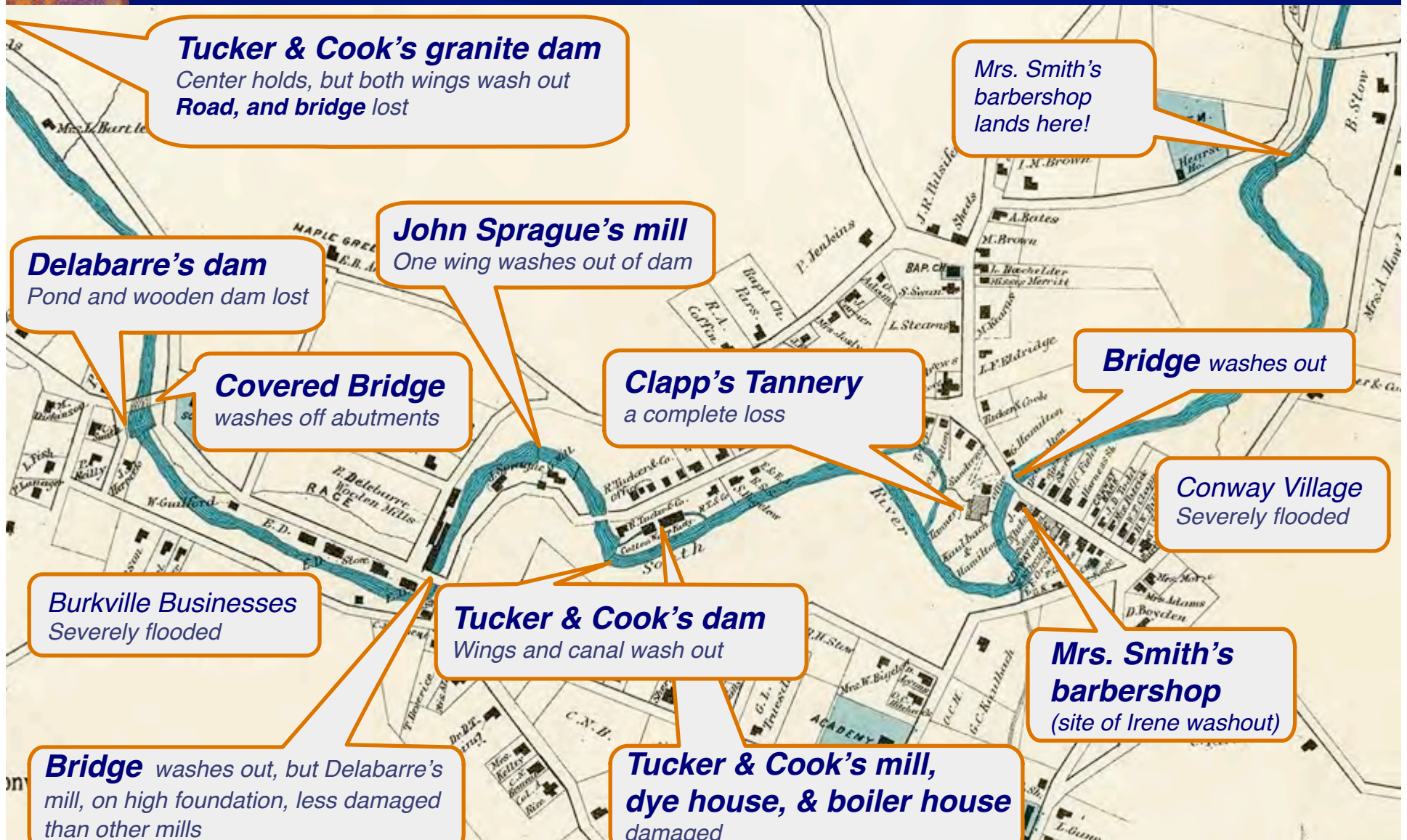
# Reigning-in the South River

“Communal fears regarding the potential breach of this large reservoir prior to 1869 led to public backing of the “**4-40 campaign**” ... the river channel was **straightened and widened** to a width of **40 feet** for a distance of **4 miles.**”



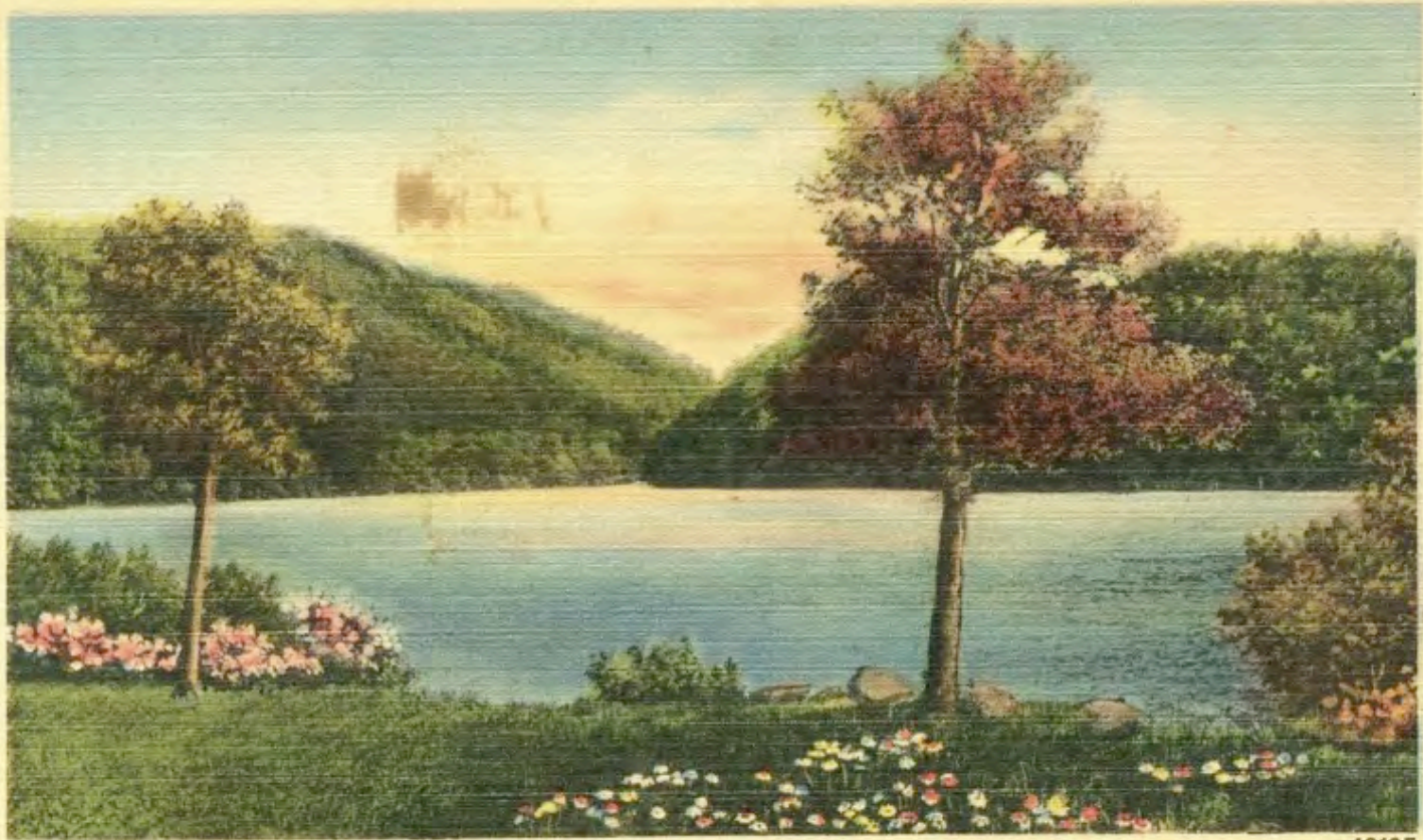


# Casualties of the "Great Freshet" of 1869 (all rebuilt at great expense by 1871, date of this map)





County Commissioners pronounce the Tucker & Cook Reservoir “perfectly safe.”



43125

Greetings from CONWAY, MASS.



# Coping through Floods & Drought

**1804**  
*Extreme event,  
New England*

**1821**  
*Severe hurricane,  
Southern New England*

**1869**  
*Tropical storm,  
into Vermont*

**1875**  
*Heavy rain*

**1895**  
*Heavy rain &  
snowmelt*

**1815**  
*Extreme event,  
New England*

**1846**  
*Tropical storm,  
into Vermont*

**1876-77**  
*Drought*

**1878**  
*Heavy rain &  
snowmelt*

1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900

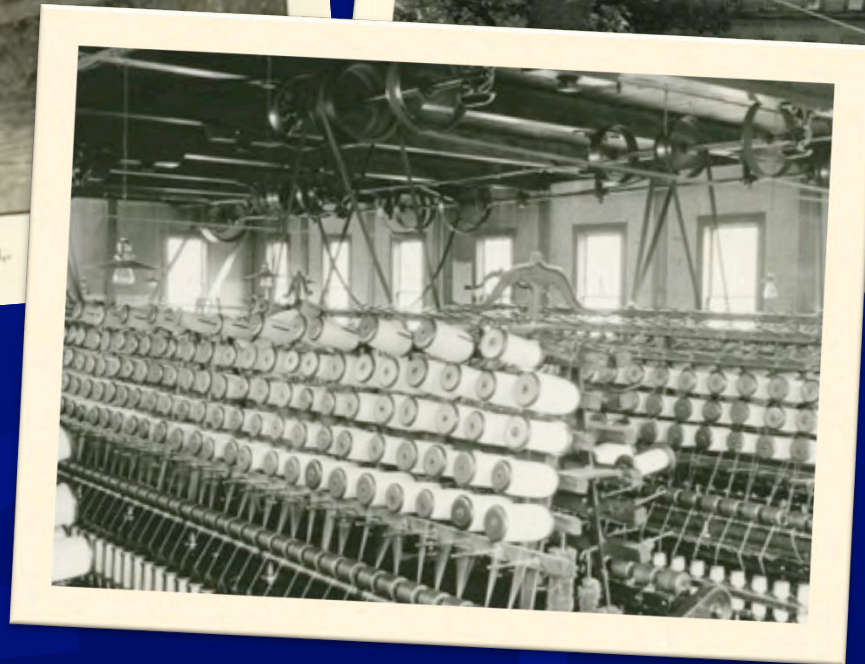


# Corliss Steam Power

With water power unreliable due to the drought, the mill owners introduce coal powered Corliss steam powered engines.



DELABARRE WOOLEN MILL.





## 1878 Flood: Ashfield and Conway devastated when Ashfield's "Great Pond" dam breaks



*In response, Conway's selectmen contract for an iron bridge.  
(Photo c. 1890)*



# Arrival of the Railroad, 1884

High bridge over the mouth of the South River





# A trolley to the train

Connecting to the outside world



**Masonic Building and Electric Station, Conway, Mass.**

**Florence R. Howland's Series**



Late 19<sup>th</sup>  
century –  
new types of  
manufacturing

The DeWolf &  
Hassel Shoe Factory





# Shoes, Raincoats, & Tool handles

New factories on the trolley line



REED'S TURNING MILL.

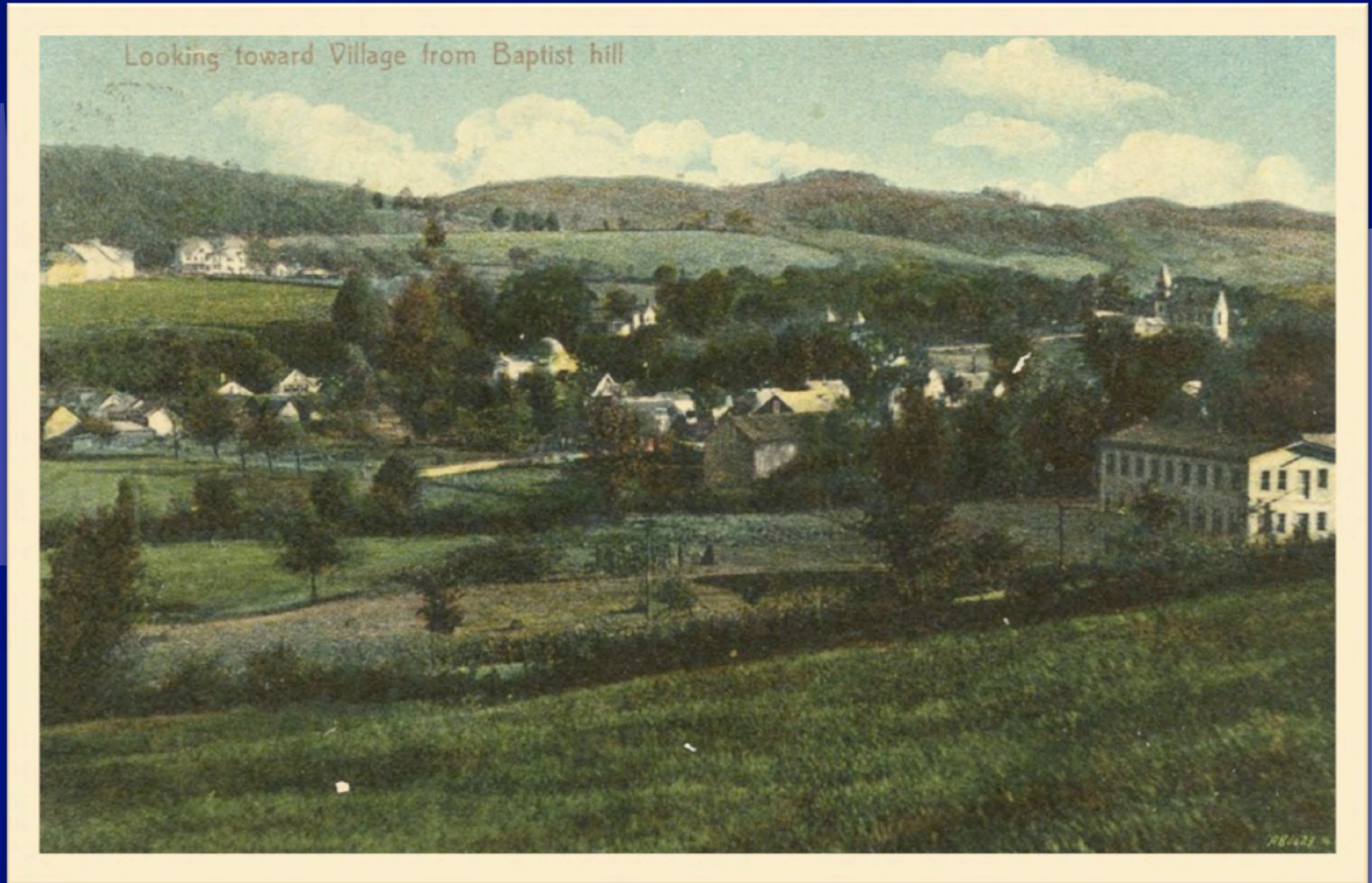


DARBY & MOORE DUCK SUIT MANUFACTORY.



# Duck Coat Factory

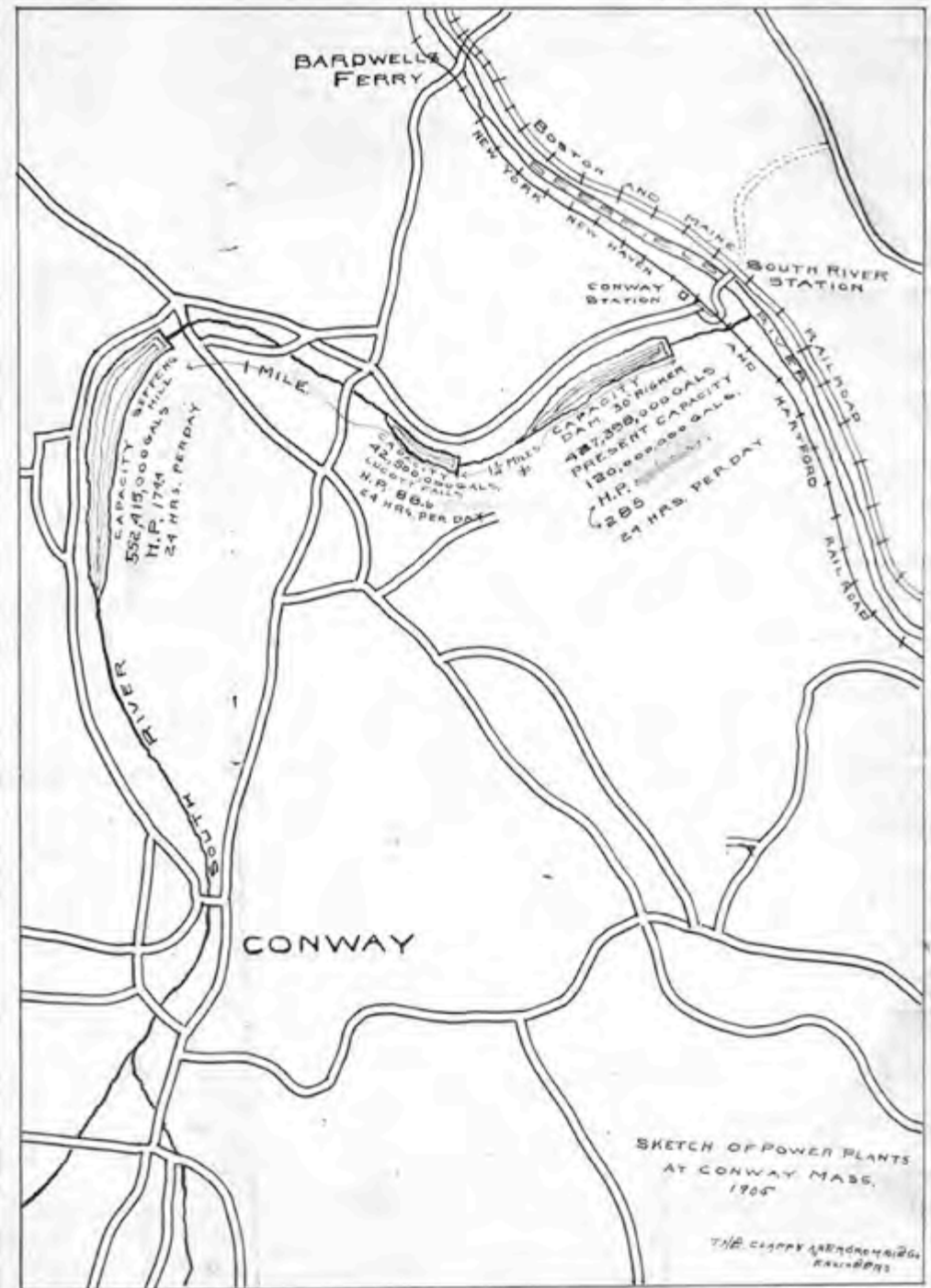
(Located behind the Masonic Building)





# Anticipating Further Growth

Proposed hydroelectric generation, 1905





# Stocks & Bonds

Citizens invest in local utilities





Take the trolley  
to Wildwood  
Park on Lake  
Wequanach.



Only one Supplement to this tariff  
may be in effect at any time.  
ATHY. NO. 646-100.

M.P.S.C.No.1.

**CONWAY ELECTRIC STREET RAILWAY CO.**

**Local Tariff**

OF

**Passenger Fares, Special Car Charges and Baggage Rates**

APPLYING FROM OR TO

**CONWAY, MASS.**

TO OR FROM

**SOUTH RIVER, MASS.**

**CASH FARES**

BETWEEN CONWAY, MASS. AND FARE LIMITS NAMED BELOW:

FARE LIMIT 1 BATCHELDER'S CROSSING, MASS. ....	\$0.05
FARE LIMIT 2 GRAVE'S CORNER, MASS. ....	.05
FARE LIMIT 3 WILDWOOD PARK, MASS. ....	.05
FARE LIMIT 4 (CONWAY, MASS. STATION (N.Y.N.H.& H.R.R.)) (SOUTH RIVER, MASS. STATION (B.& M.R.R.)) .....	.05

SCHOLAR'S TICKETS ISSUED TO STUDENTS FOR TERM OF THREE MONTHS ..... 3.00

FIVE-RIDE TICKETS BETWEEN CONWAY, MASS. AND SOUTH RIVER, MASS. STATION (B. & M.R.R.) ..... .75

SPECIAL CAR. - CHARGE FOR USE OF SPECIAL CAR BETWEEN CONWAY AND SOUTH RIVER, MASS. STATION (B. & M.R.R.) OR BETWEEN FARE LIMITS NAMED ABOVE, SINGLE OR ROUND TRIP ..... 5.00  
WHEN LIGHTS ARE FURNISHED AT WILDWOOD PARK, ADDITIONAL CHARGE ..... 3.00

BAGGAGE RATES. - TRUNKS OR BAGGAGE NOT EXCEEDING 150 POUNDS IN WEIGHT, MINIMUM CHARGE ..... .10  
FOR EACH ADDITIONAL 100 POUNDS OR FRACTION THEREOF ..... .10

ISSUED SEPTEMBER 8, 1914.

EFFECTIVE OCTOBER 12, 1914.

Issued by A. P. Delabarre,  
Vice President,  
Conway, Mass.




# 1909-Concrete Hydro-electric Dam

Power for trolley and town







# 1909 Concrete Hydro-electric Dam

Reservoir now silted up, but dam still stands



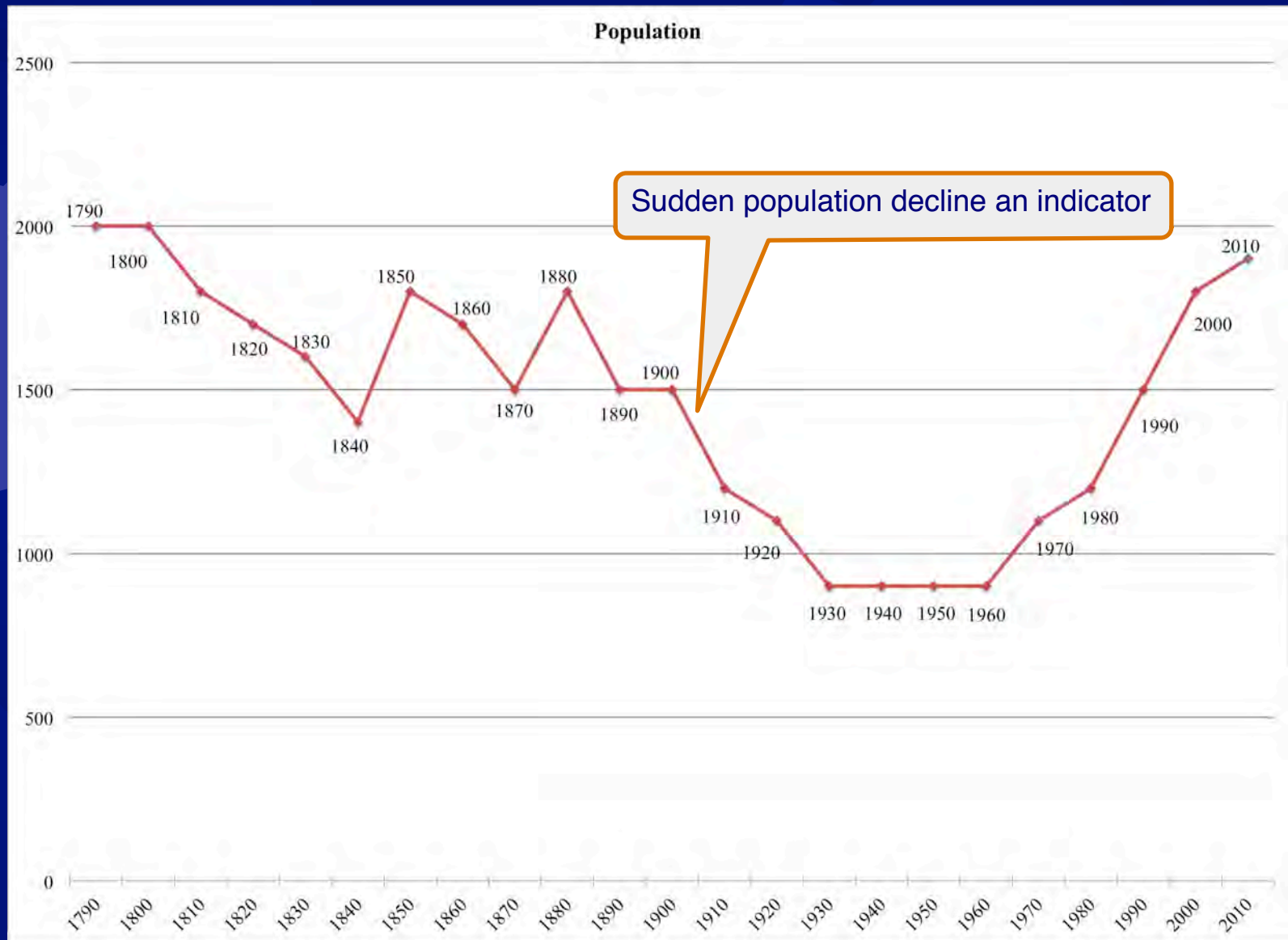
(Google Maps, 2011)



(Photo Ben Barnhart, 2012)



But things were not really going so well.  
Conway's bubble bursts.





# Up for Sale:

Tucker & Cook's  
upper mill sold  
November, 1912.

Lock, stock and  
barrel –  
water power rights,  
machinery,  
& out buildings.  
Even the reservoir.

Pledged to the highest bona fide bidders notwithstanding what  
may be said or thought to the contrary

## The Tucker & Cook Cotton Yarn Mill

AT CONWAY, MASSACHUSETTS

to be sold as an entirety

**T**HE mill real estate, the machinery, the water power privilege, the reservoir, the steam power plant, the machine shop, and a cottage house—all in one lot—are pledged without limit or reserve of any kind whatsoever to the highest bona fide bidder at absolute auction sale.

A small property well within the reach of limited capital, on a good stream, in a fine village, several active and successful industries (small) above and below it, on the line of the Conway Electric Street Railway which has express and freight privileges and a spur track onto the premises (no switching charges), labor troubles and agitation unknown. Five separate lots of village real estate.

Conway is on the main line of the New Haven & Shelburne Falls Branch of the N. Y., N. H. & H. Railroad—Conway Station being 4 1-2 miles by the trolley cars (25 minutes) from the Center Village; South River (Conway) Station on the main line of the Fitchburg Division of the Boston & Maine Railroad is 5 miles from the Center Village and connected therewith by trolley cars (30 minutes); the trolley cars carry freight and express from spur track upon the premises of the Tucker & Cook plant to and from the two railroad systems; the trolley car line is operated and owned by the Boston & Maine Railroad.

*W. A. Bullard*  
Agent.

Over 100 h. p. of water power over ten months in the year.



# End of an Era...



THE RESERVOIR



LOT THREE

LOT FOUR

THE MILL—LOT ONE



LOT FOUR



THE MILL—LOT ONE



The De Wolf Shoe Co. Plant





# 1916 - Deerfield River Electric Light Company takes over power transmission Conway's hydro-power production abandoned

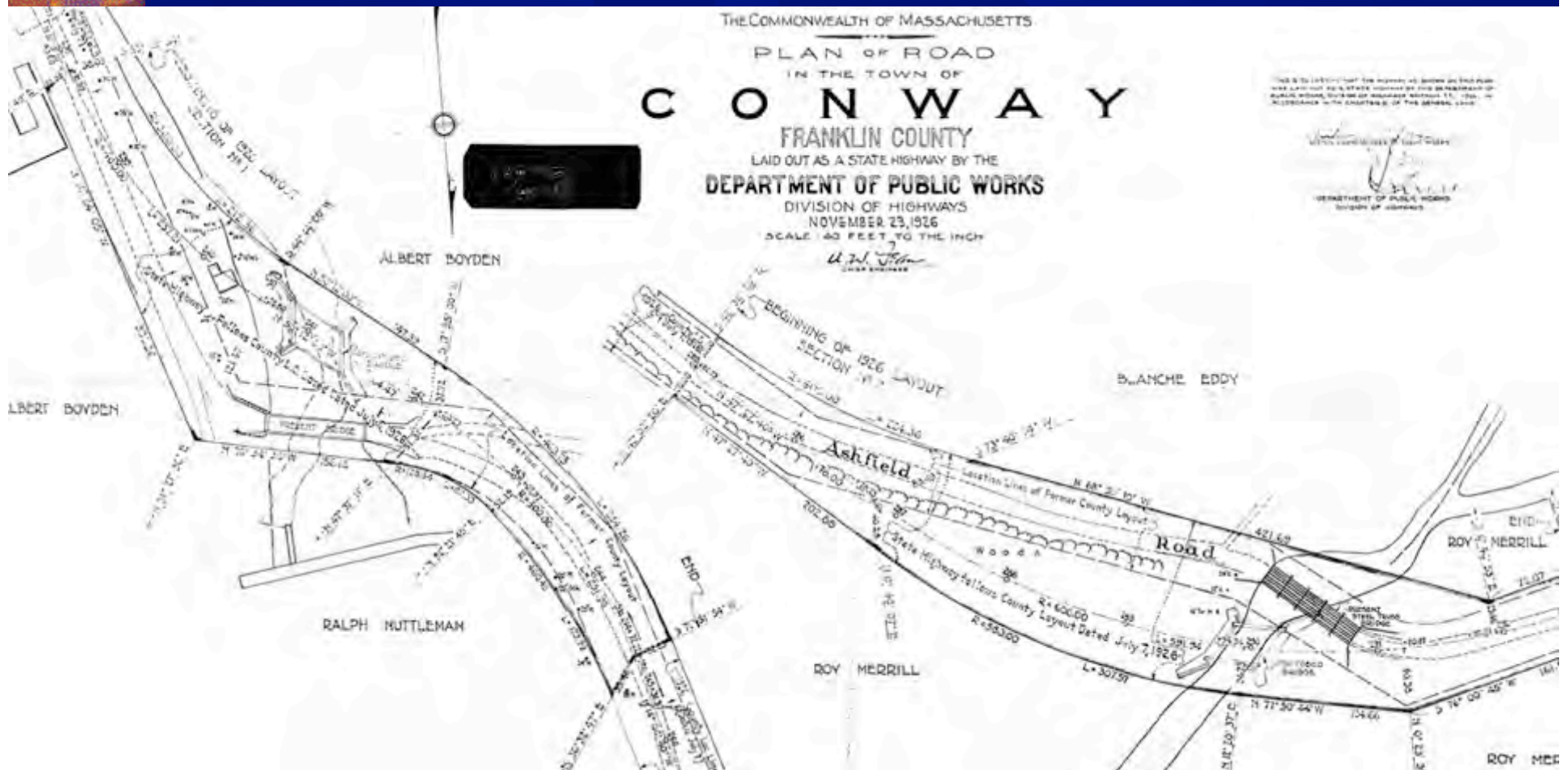


Ruins of generator mount and penstock at the Conway Station dam  
(Photos by Ben Barnhart, 2012)



# The Age of the Automobile

## 1925-26, State pushes through highway & concrete bridges



1926 plans for bridges: Above town center (left), Main Street (right)



# Projects for the common good

Mid-1930's Town Ballfield built - WPA & Eminent domain



Parson's field, before the ball field was built



# 20<sup>th</sup> Century: Containing a Nuisance

By mid-century, the river is seen less as a resource, more as a problem

**1904**

*Hurricane hits Western Mass*

**1927**

*Late season tropical storm*

**1936**

*Hurricane*

**1938**

*The Great New England Hurricane*

**1939**

*Heavy rain & snowmelt*

**1955**

*Hurricanes Connie & Diane, a week apart, near misses for Franklin County*

**1982**

*Severe thunderstorm - 16" downpour. Town center flooded*

**1985**

*Hurricane Gloria*

**1999**

*Hurricane Floyd*

1900

1910

1920

1930

1940

1950

1960

1970

1980

1990

2000

1939-40

*Dikes and rechanneling above town center*

1982-3

*Concrete retaining wall rebuilt*



## After 1936 Flood, the town dismantles the Tucker and Cook Reservoir



Site of the Tucker & Cook dam (photo, Michele Turre, 2013)



# The Great New England Hurricane of 1938



Conway Suffers Severe Damage

Upper photograph illustrates the flood ravages on the Conway Common. War relics are buried in the hole in the ground. One way to use the Reservoir bridge is shown by this woman and child, climbing down a ladder to reach the other side from the center of the town.



# 1938 Flood

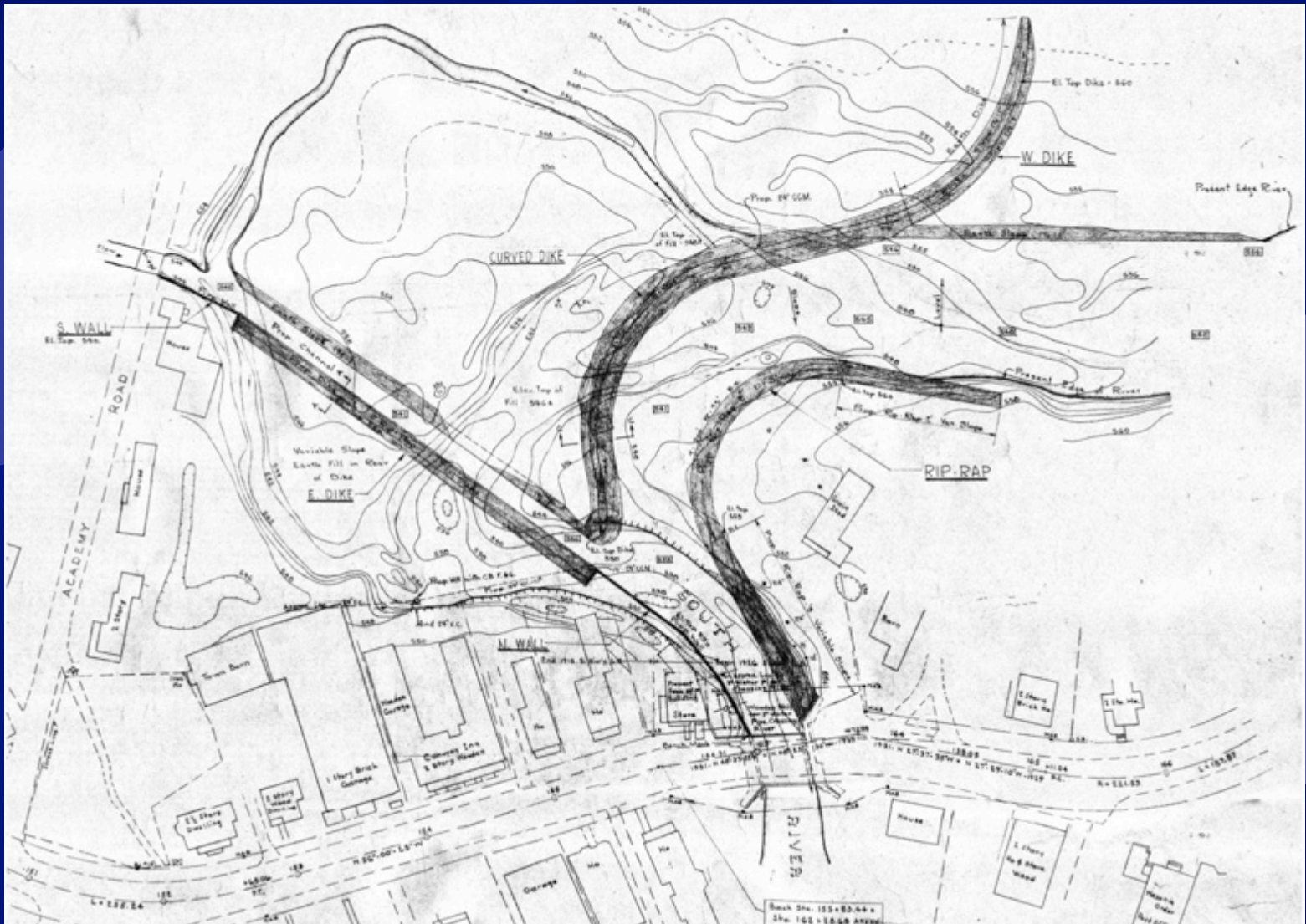
RT 116 washout:  
bridge west of  
Burkville near  
Eldridge Road



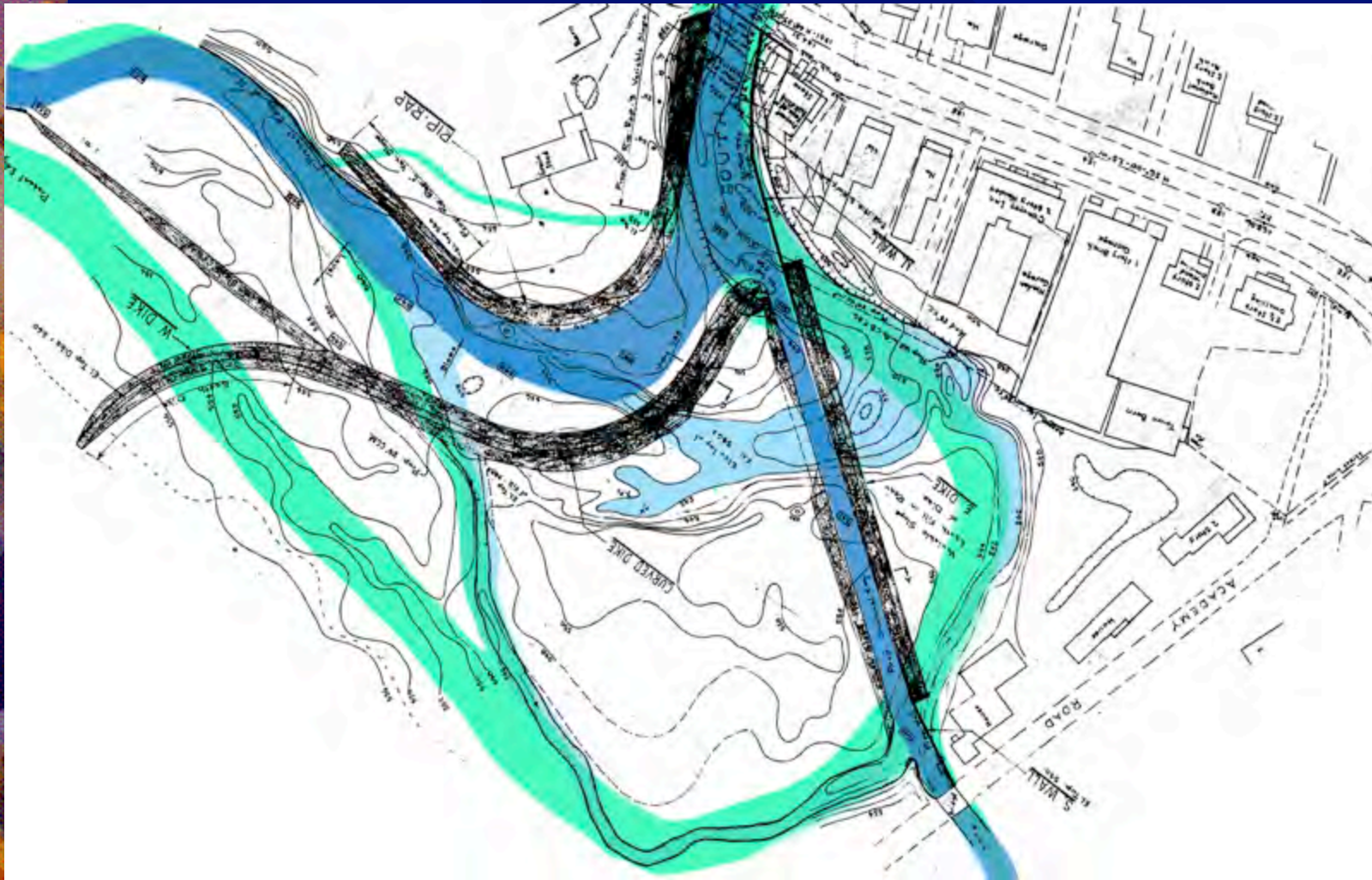


# Response to floods of '38 & '39

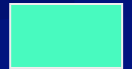
## Dikes and berms behind the town center



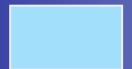
# 150 years of Channel changes



1871



1938



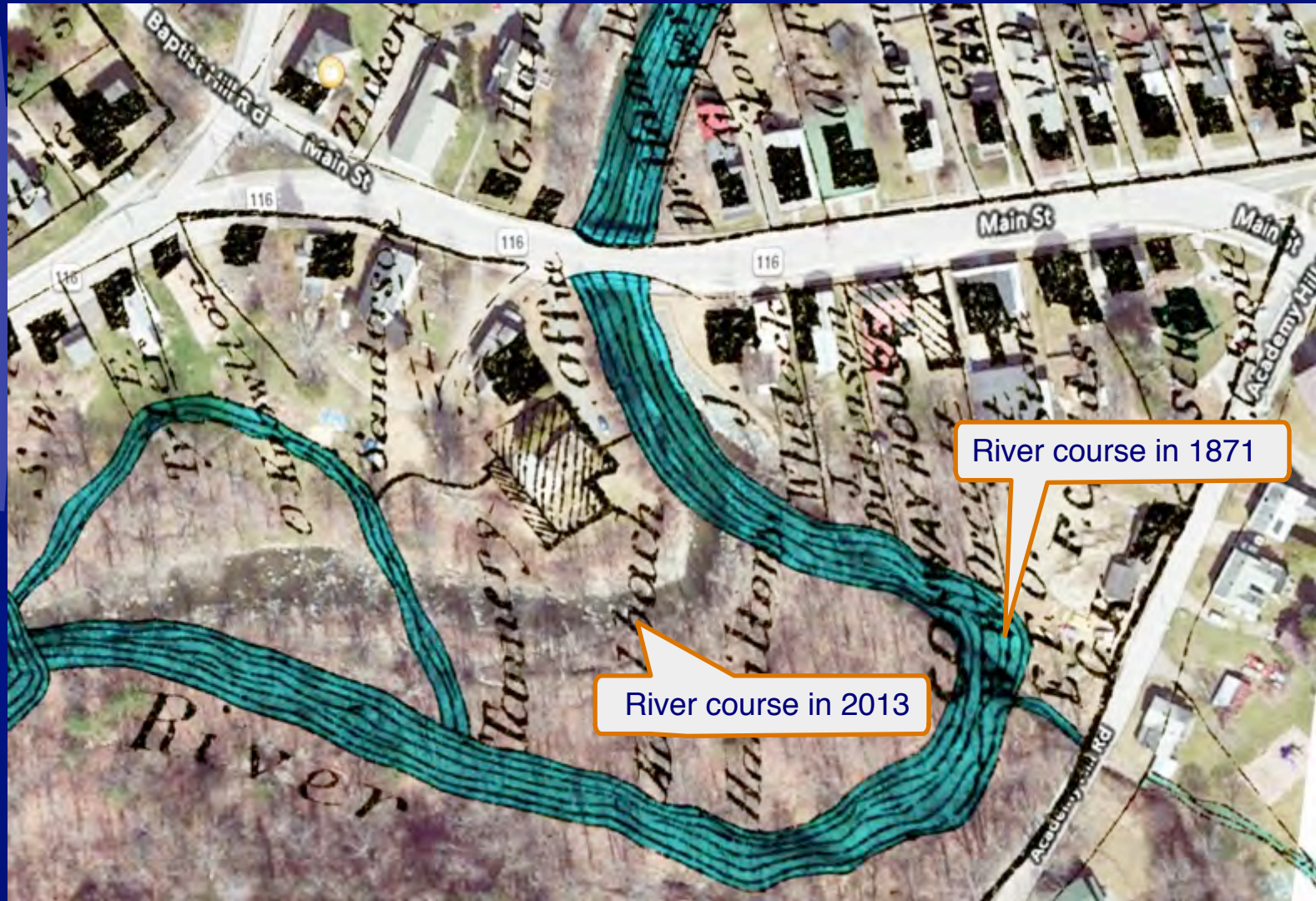
2012





# 150 years of Channel changes

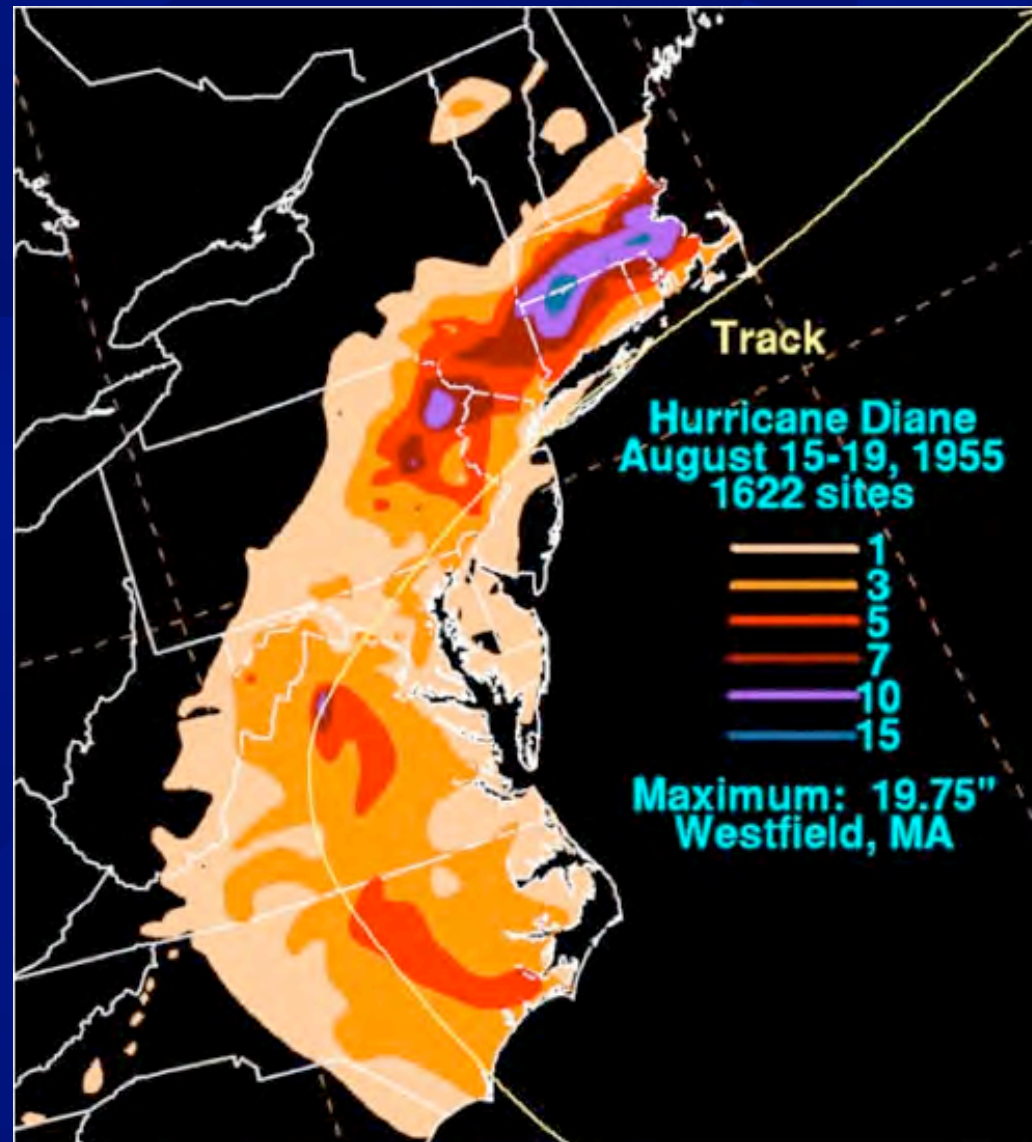
Overlay of 1871 map on recent satellite imagery shows change in course of river





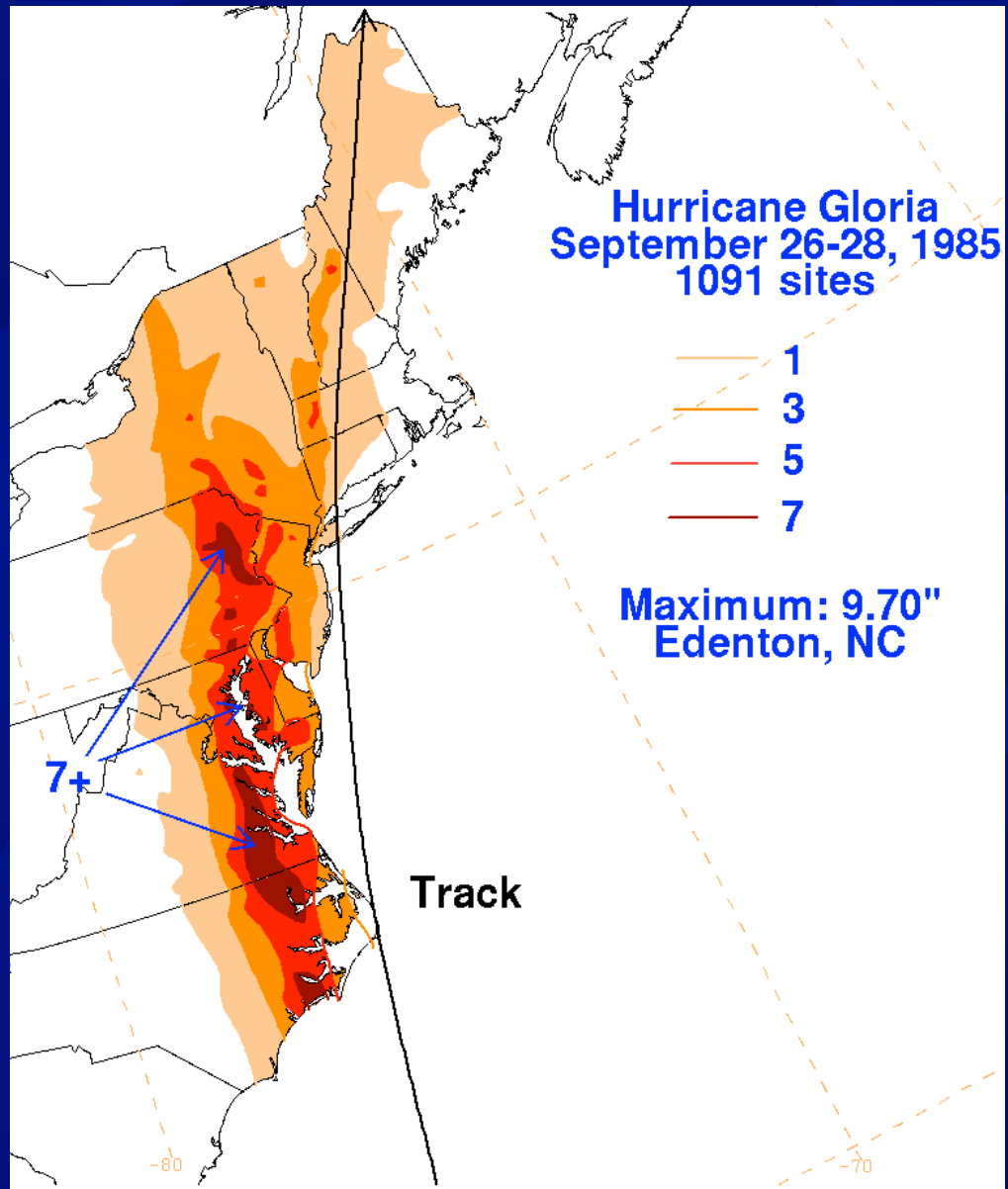
# 1955 Hurricanes

Diane & Connie – near misses for Conway





# 1985 Gloria – a direct hit



# Hurricane Gloria, 1985

Repairs to retaining wall in center of town



(photo, Joe Strzegowski)



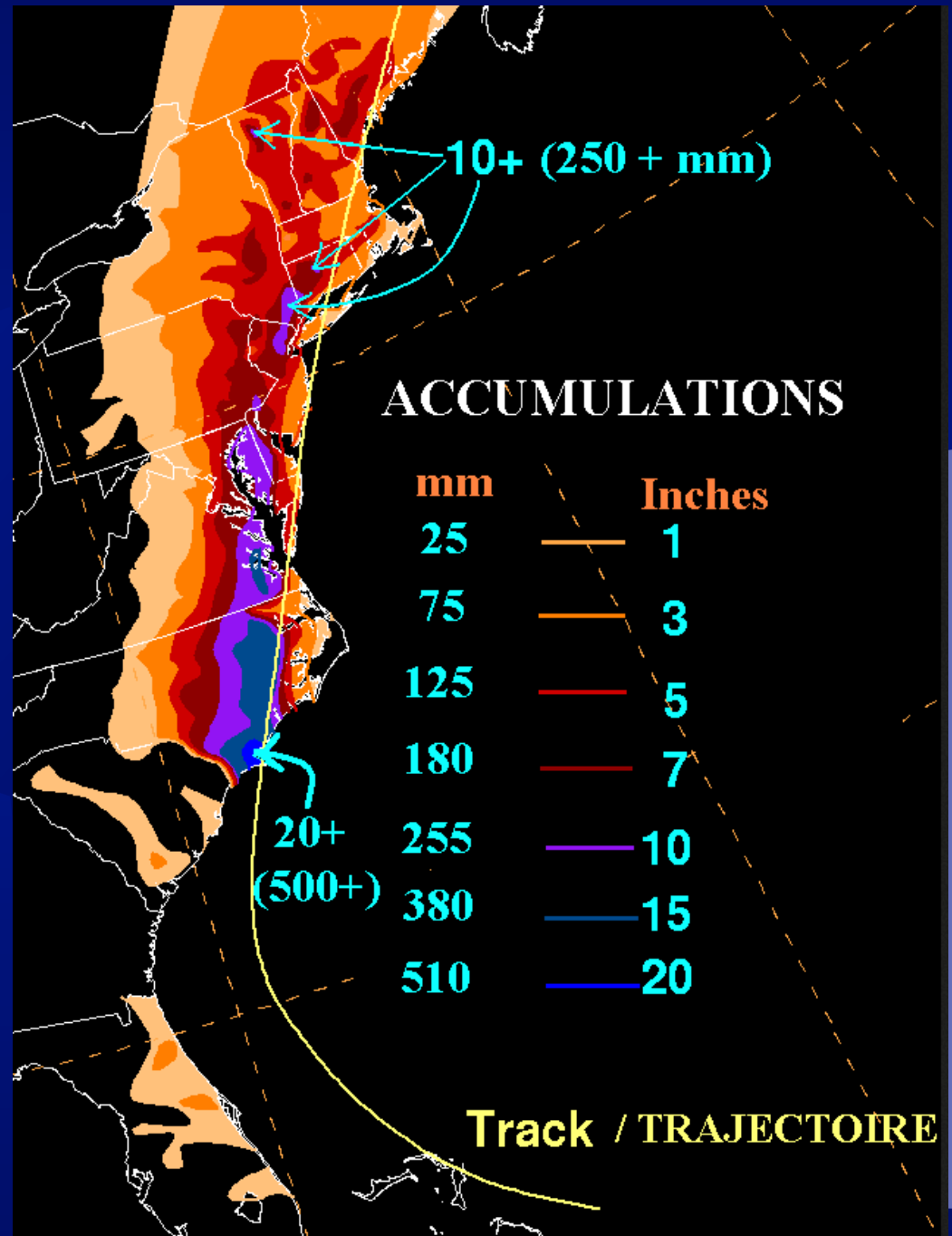
# Hurricane Gloria 1985

Damage & repairs  
at Poland Brook



(photos, Joe Strzegowski)

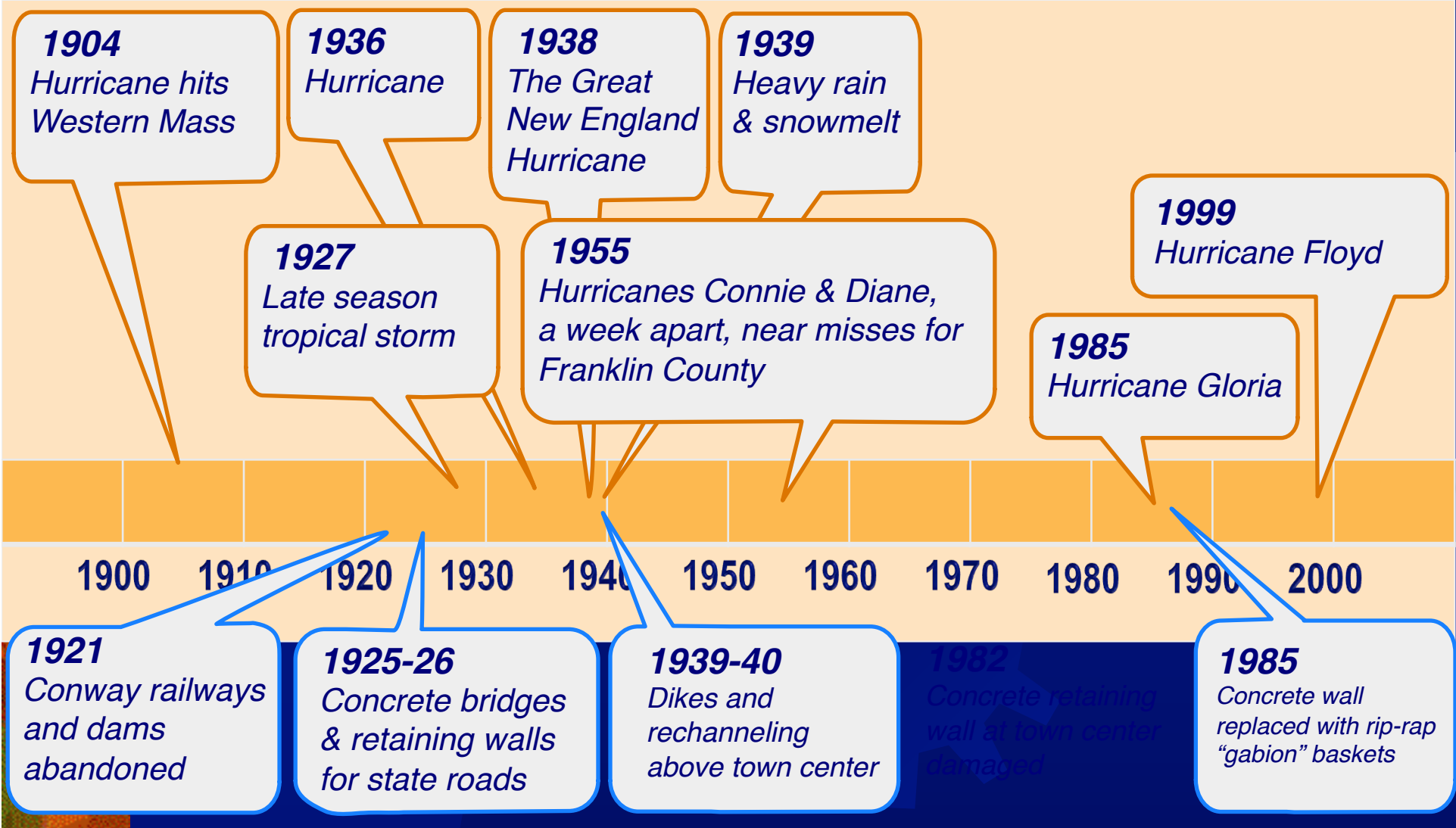
# September 1999 Hurricane Floyd



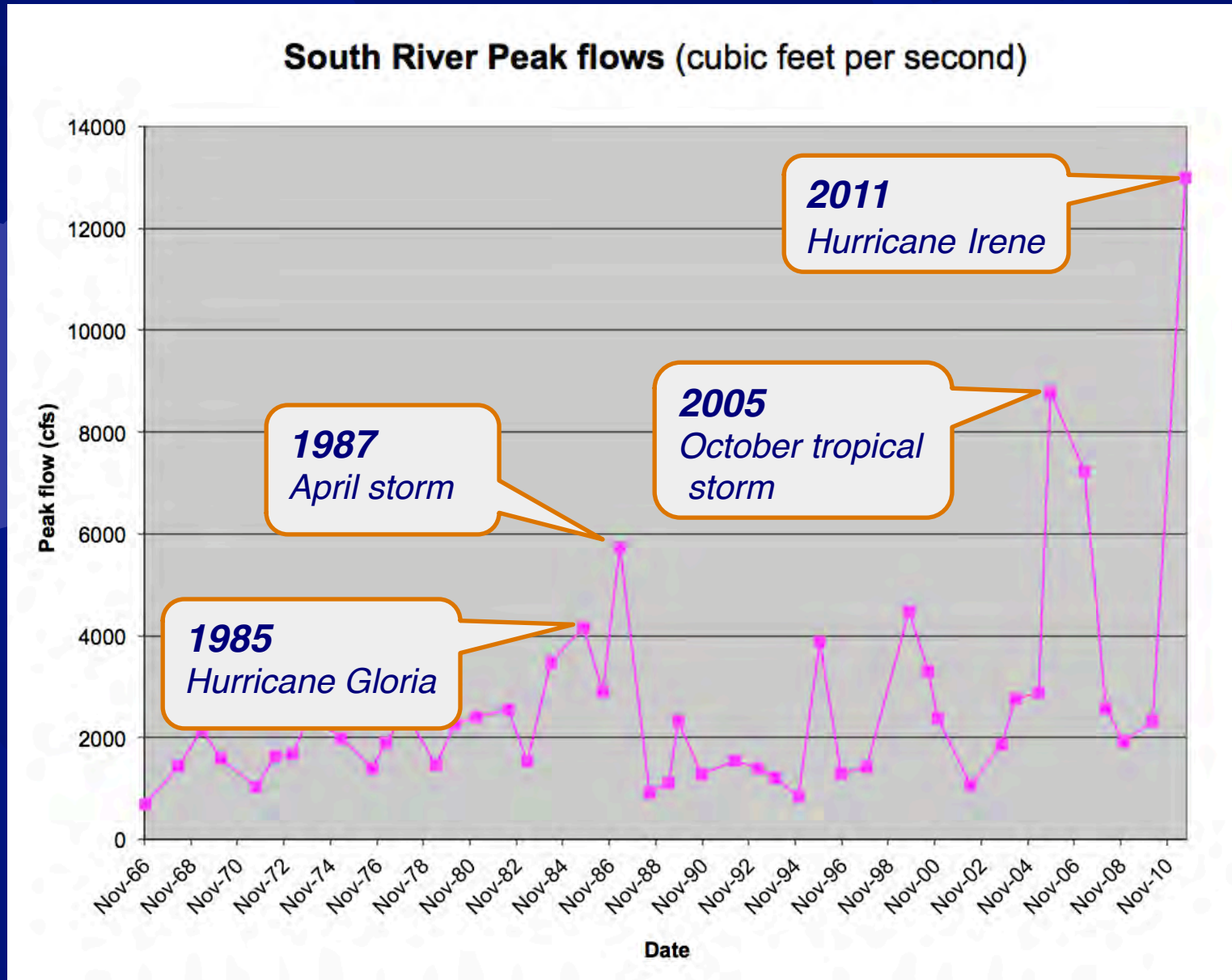


# Containing a Nuisance:

## A century of responses to weather events



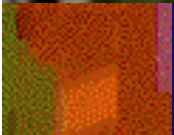
# Gauge readings at Reeds Bridge since 1966







# October 2005, Tropical Depression





# 2011 Hurricane Irene

8 ½ inches of rain takes out the new geo-cell wall





# The legacy of reigning-in the South River

Reaches straightened in the mid-19<sup>th</sup> century persist to today





# 2011 Hurricane Irene

The National Guard clears log jams





# Irene

Fresh in our minds



Irene Flood, from triangle in front of library (video, John O'Rourke, 2011)

# 21<sup>st</sup> Century

*What's next?*

*A better understanding of the river?*

**Spring 2006**  
*Heavy rain, and snow melt*

**2011**  
*Hurricane/Tropical storm "Irene"*

**Fall 2008**  
*Heavy rain*

**2012**  
*Hurricane "Sandy," another near miss*

*Effects of climate change?*

**2011**  
*Rip-rap retaining wall replaced w/ geo-cell wall*

**2011**  
*After geo-cell washout, emergency rip-rap repairs narrow channel*

*Flood mitigation projects?*

2000 2010 2020 2030 2040 2050 2060 2070 2080 2090 2000





## Presentation Team

David Barten & Phil Kantor - Presenters and Research

Joe Strzegowski - Presentation layout, scanning, introductions

Michele Turre - Presentation design, visual materials

## Visual Resources

oldmaps.com – historic maps

Ruth Parnall – historic maps

ARC GIS – terrain map

NOAA Storm maps and tracks

Wikimedia & David Rumsey Maps – historic maps

Conway Historical Society – historic artifacts, maps, blueprints and photos,

Denis Delap Postcard Collection

Field Memorial Library – historic photos, newspaper clippings

Ben Barnhart – photos

Joe Strzegowski – photos

Michele Turre – photos, scanning, timeline graphics, map overlays

Google Maps – satellite imagery

Field Geology Services – photos and flow chart

John O'Rourke – Hurricane Irene video