

Apalachicola River, Floodplain and Bay

*Largest forested floodplain
in Florida (112,000 acres)*

*Highest Species Diversity
of any River System in
North America*

*UNESCO Biosphere
Reserve*

*Outstanding Florida Water
(OFW)*



Productivity Harvest

- *\$200 million Local Seafood Industry, 90% of Florida Oysters, and 10% of US oysters, plus shrimp, crab and finfish.*
- *In 1994, Five Million lbs. of Seafood were produced from the Apalachicola Bay region.*
- *90% of all harvested species must spend some part of their life cycle inshore on the marsh and seagrass environment, even the grouper caught offshore must rely on this healthy environment.*

Habitat Diversity

Apalachicola River Floodplain hosts the highest biodiversity of any River System in North America

- ✦ *50 species of mammals*
- ✦ *1300 species of plants*
- ✦ *40 species of amphibians*
- ✦ *80 species of reptiles*
- ✦ *300 species of birds*

See Apalachicola National Estuarine Research Reserve info

Natural Features of river and floodplain

Swamp

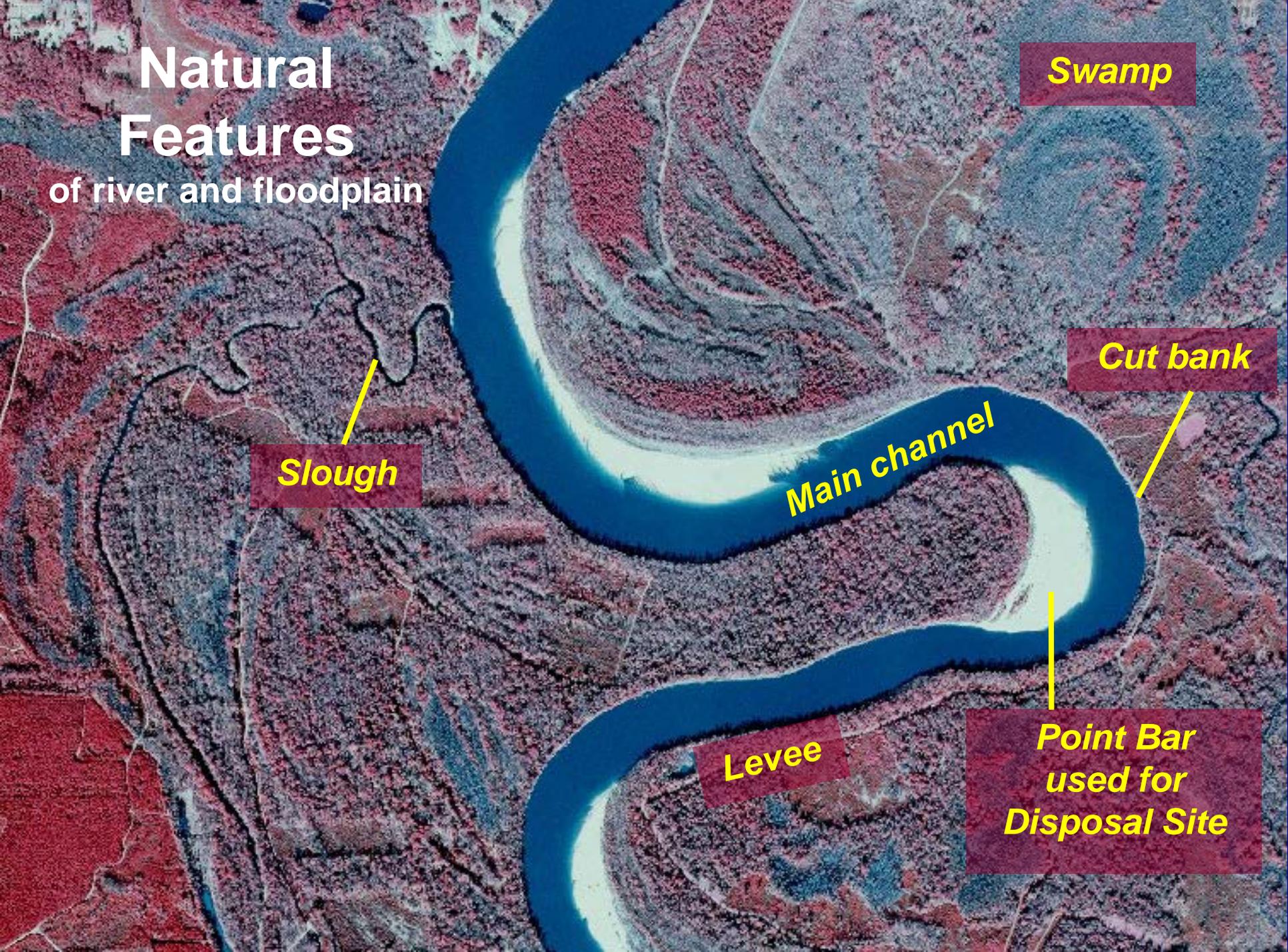
Slough

Main channel

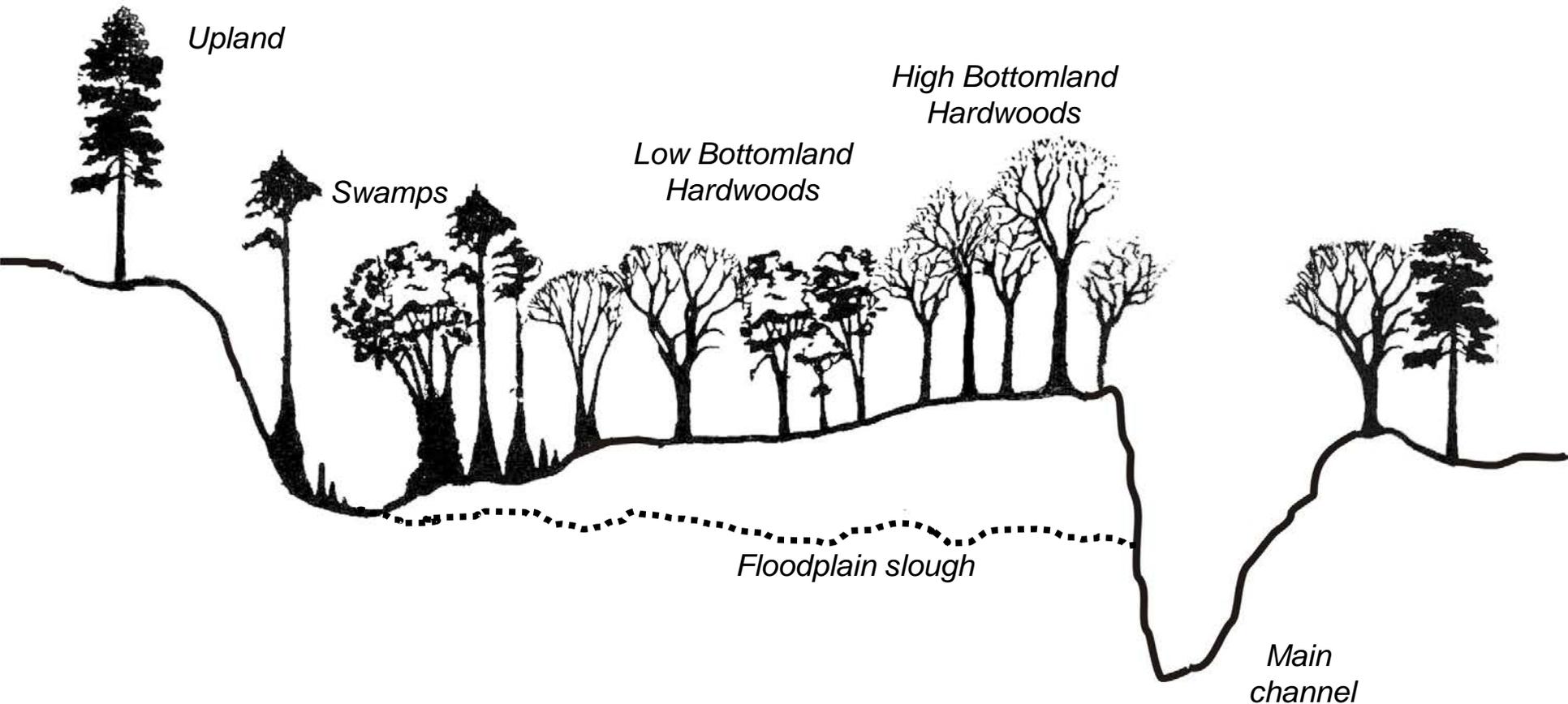
Cut bank

Levee

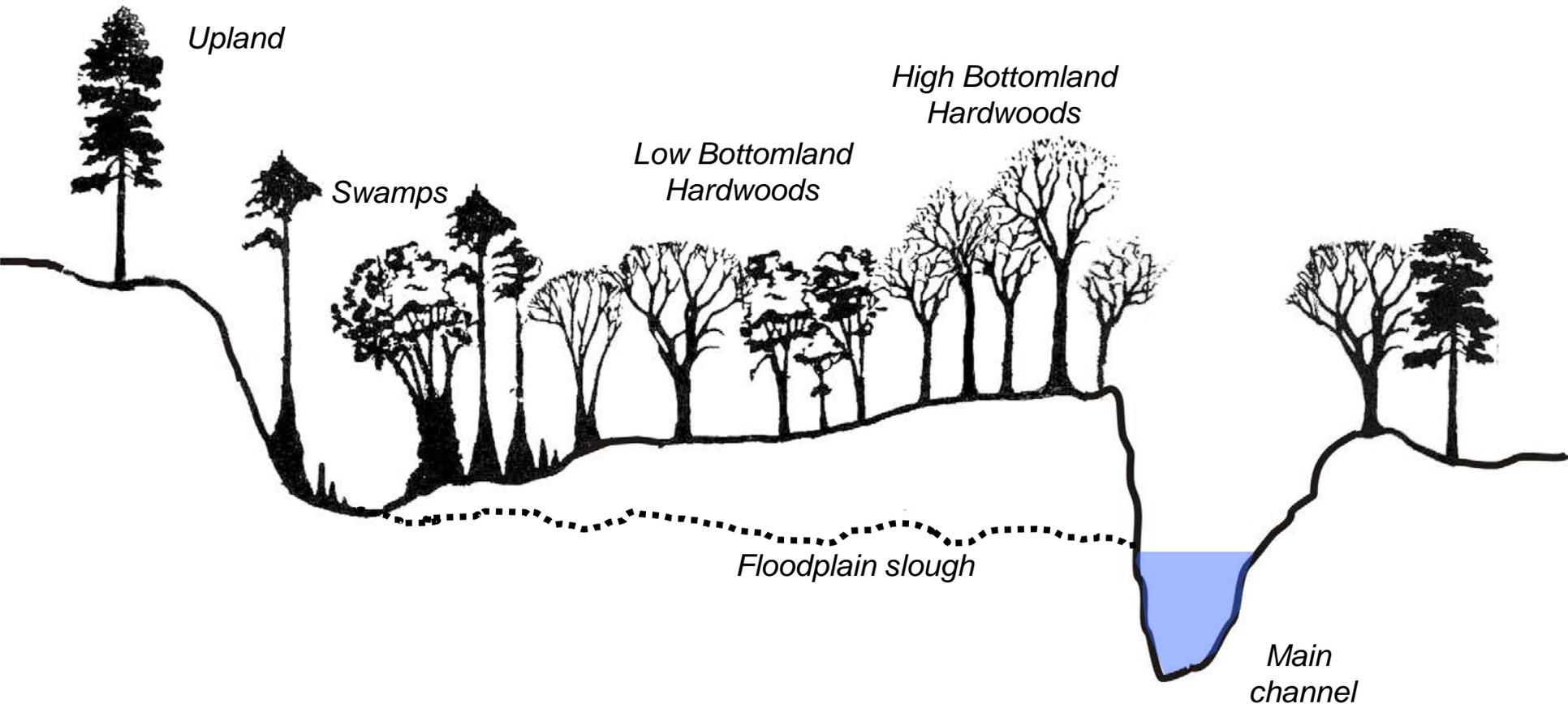
Point Bar
used for
Disposal Site



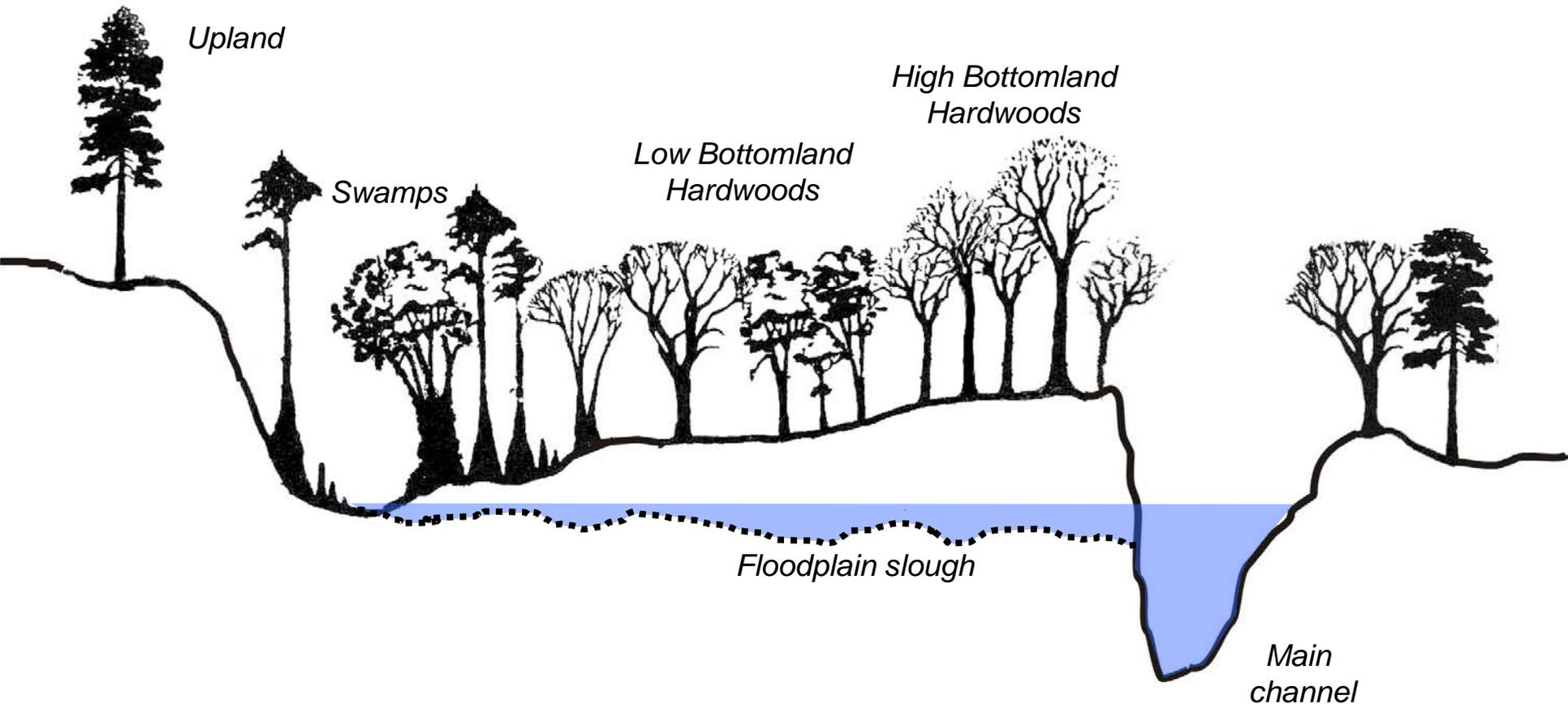
Forest Types Distributed by Elevation



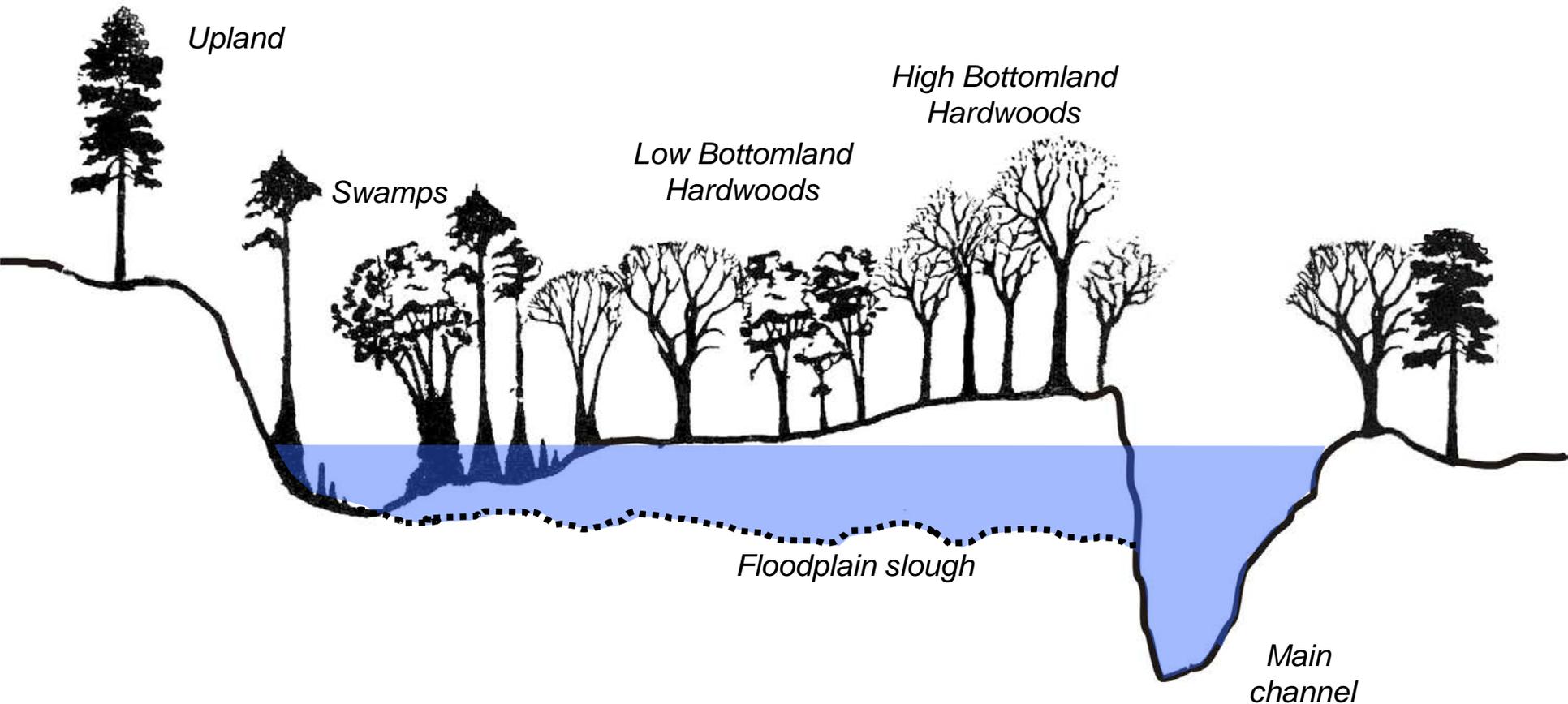
River Level Controls Water in Floodplain



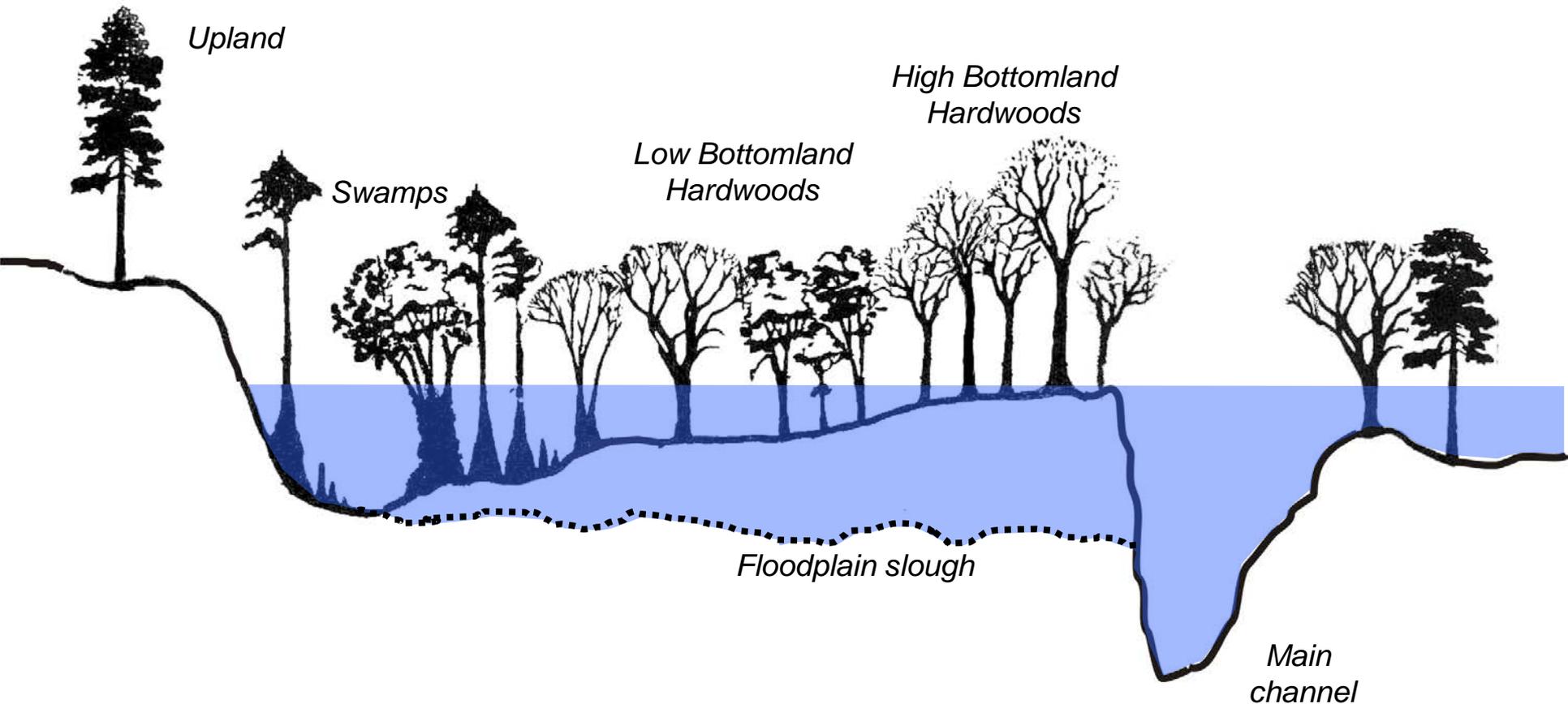
River Level Controls Water in Floodplain



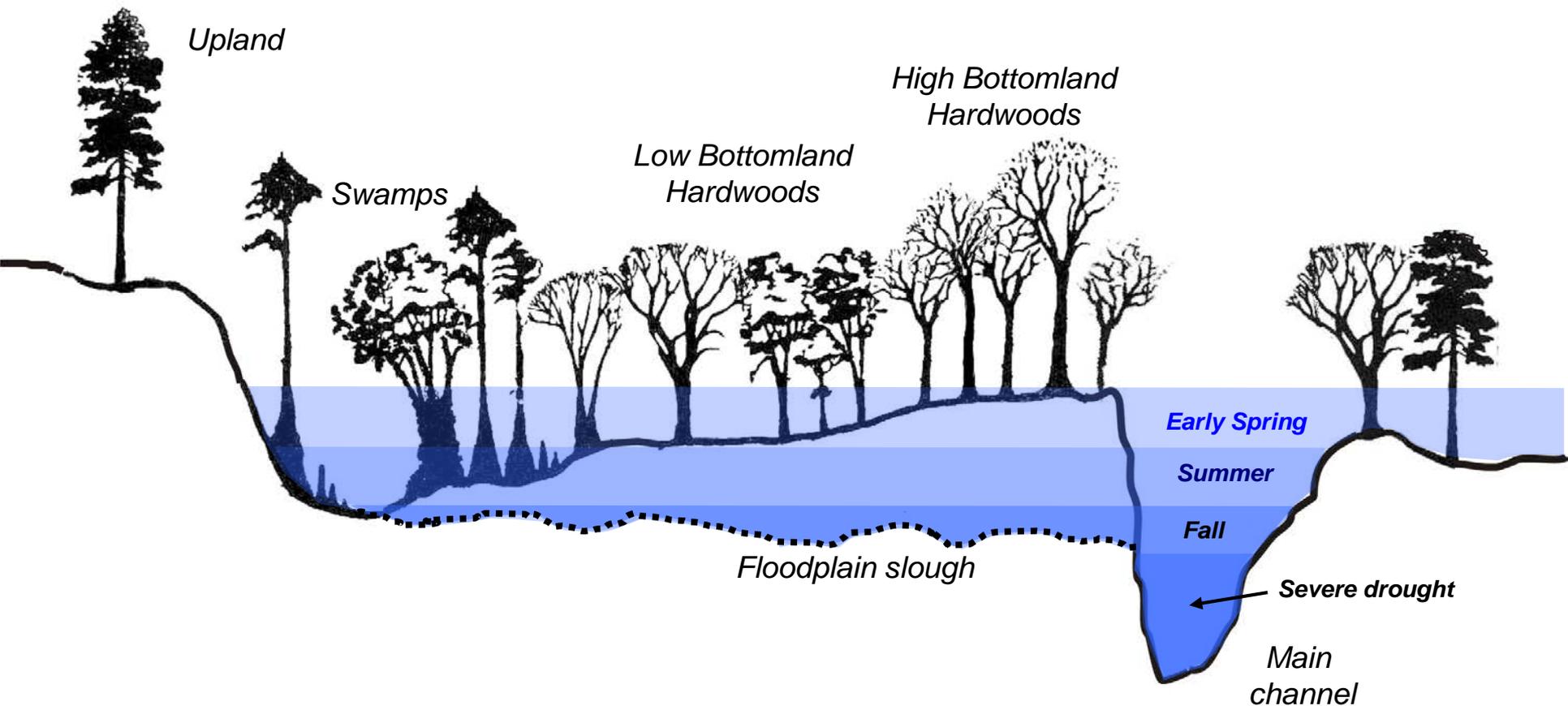
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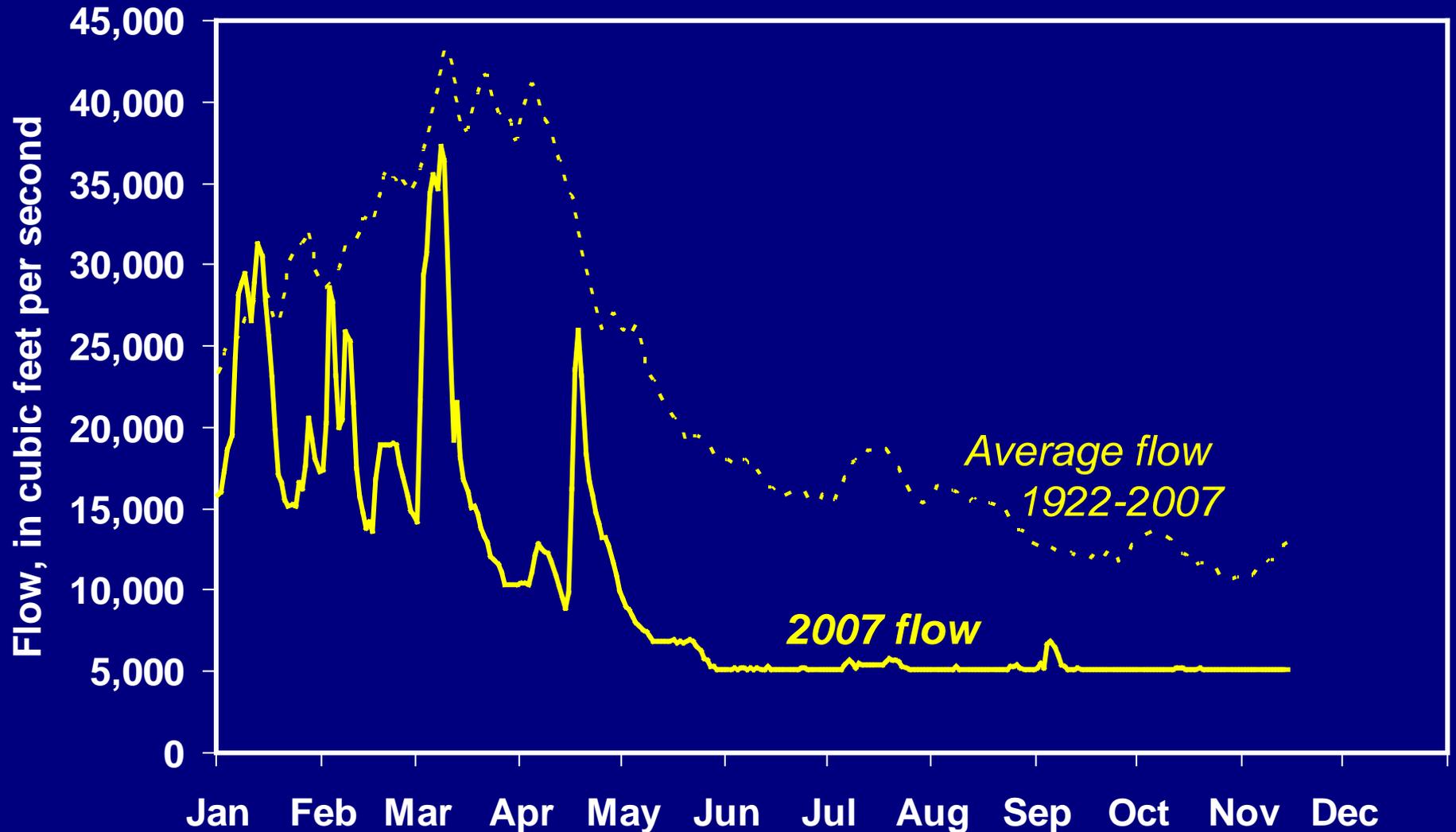


High and Low Water Seasons (before 1954)



2007 Flow in relation to Average Flow

Apalachicola River at Chattahoochee, FL



85%
of Apalachicola
River fish
species
use floodplain



**Fish trapped in
floodplain will
die if water
dries up in
isolated pools**



Stagnant conditions develop if sloughs are isolated for long periods



Summary of Major Impacts:

DECLINING RIVER STAGE

Down cutting & Widening

Woody debris removal

Loss of Fish Habitat

Reduced flow

DRYING OUT OF FLOODPLAIN FOREST

Decrease in Forests Density

Loss of 4 million trees

Disconnected Sloughs

DECLINING SEAFOOD HARVEST

River functions drives the Bay

Loss of Nutrients and increased Salinity

Chain reaction thru Food Chain

Flow Comparison

Apalachicola River at Chattahoochee, Florida

Pre-Dam



1923-1955

33-yr period before
filling of Lanier

Post-Dam

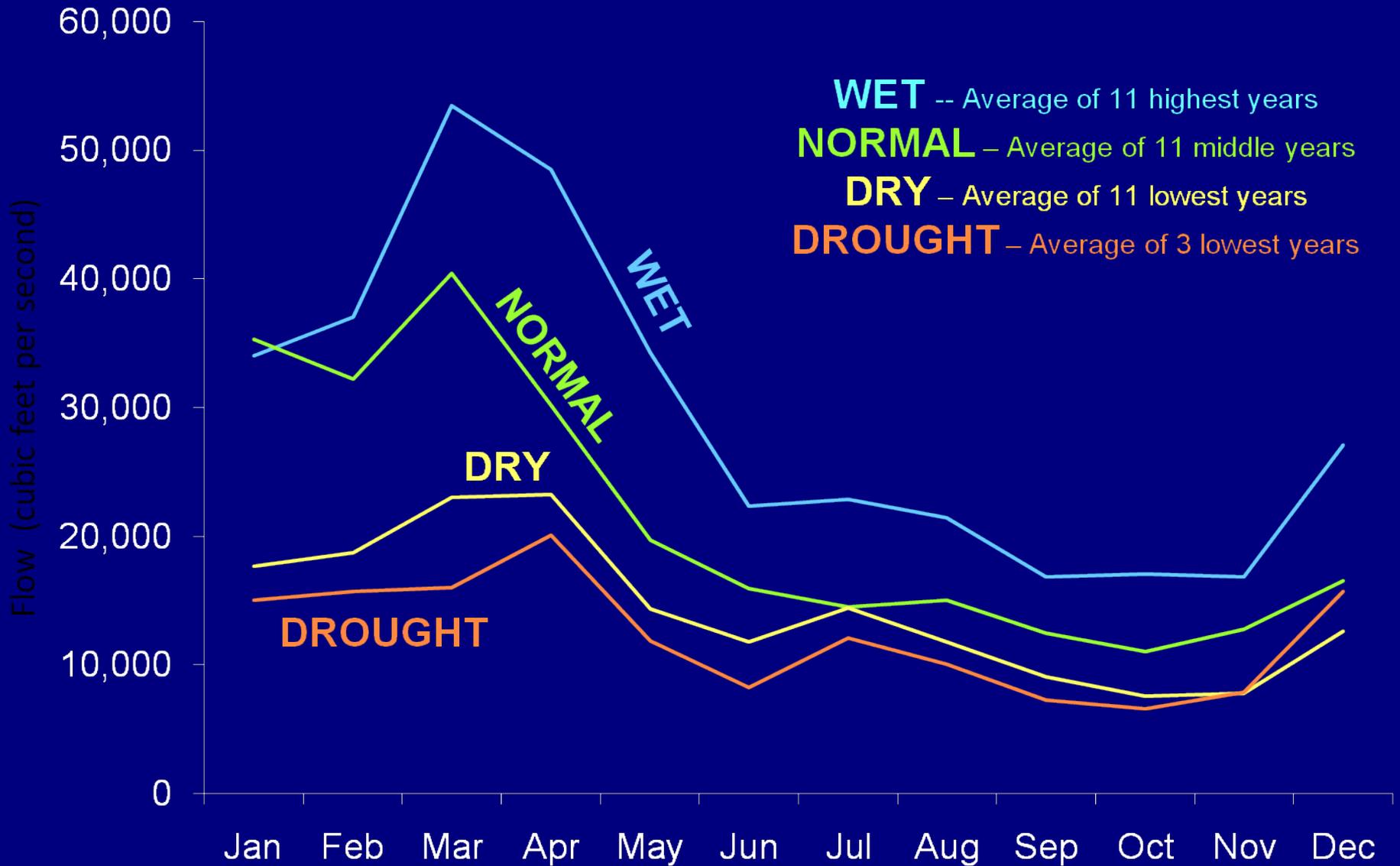


1975-2007

33-yr period after
filling of West Point

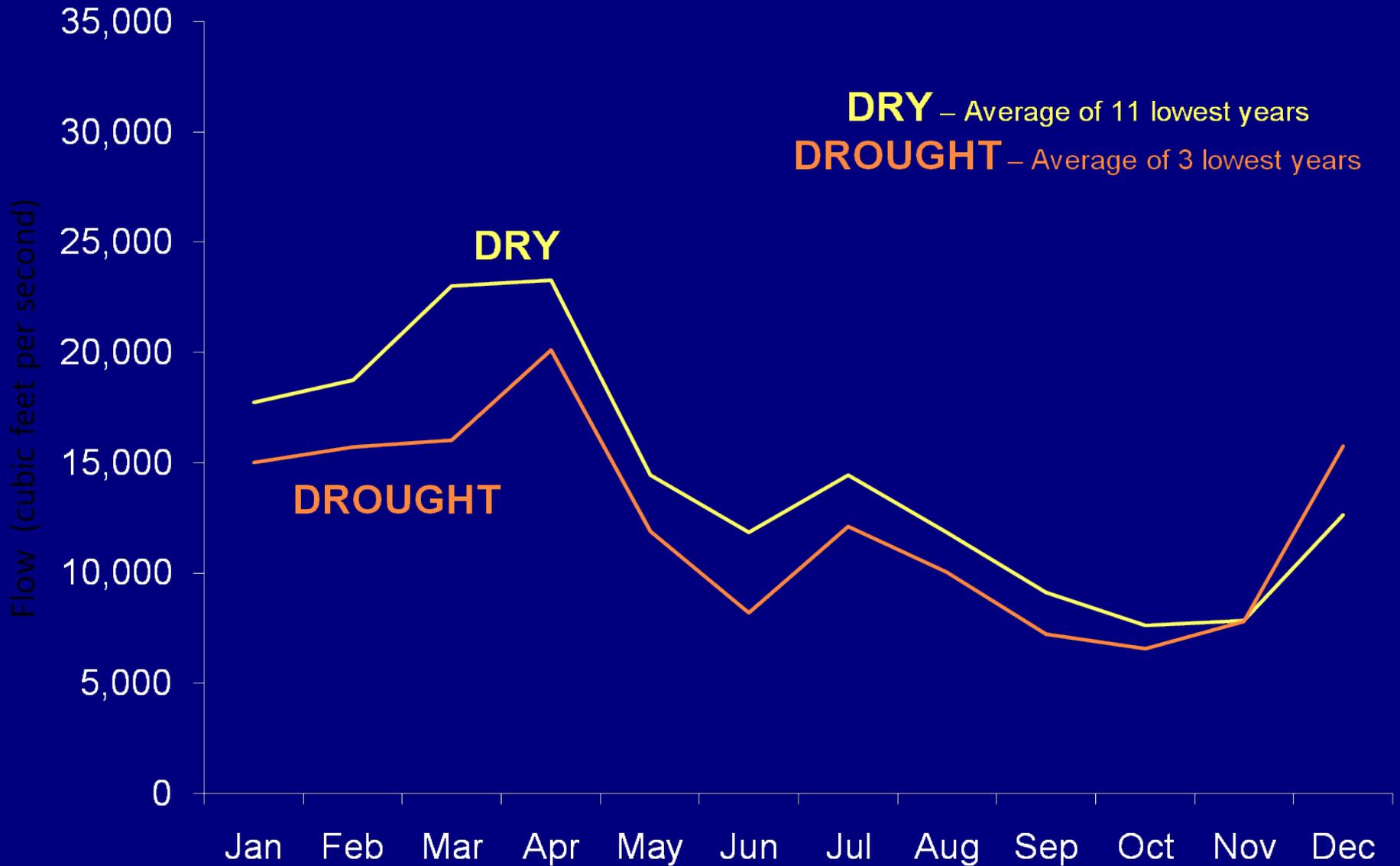
Pre-Dam Flows

For Groups of Years Ranked by Average Annual Flow

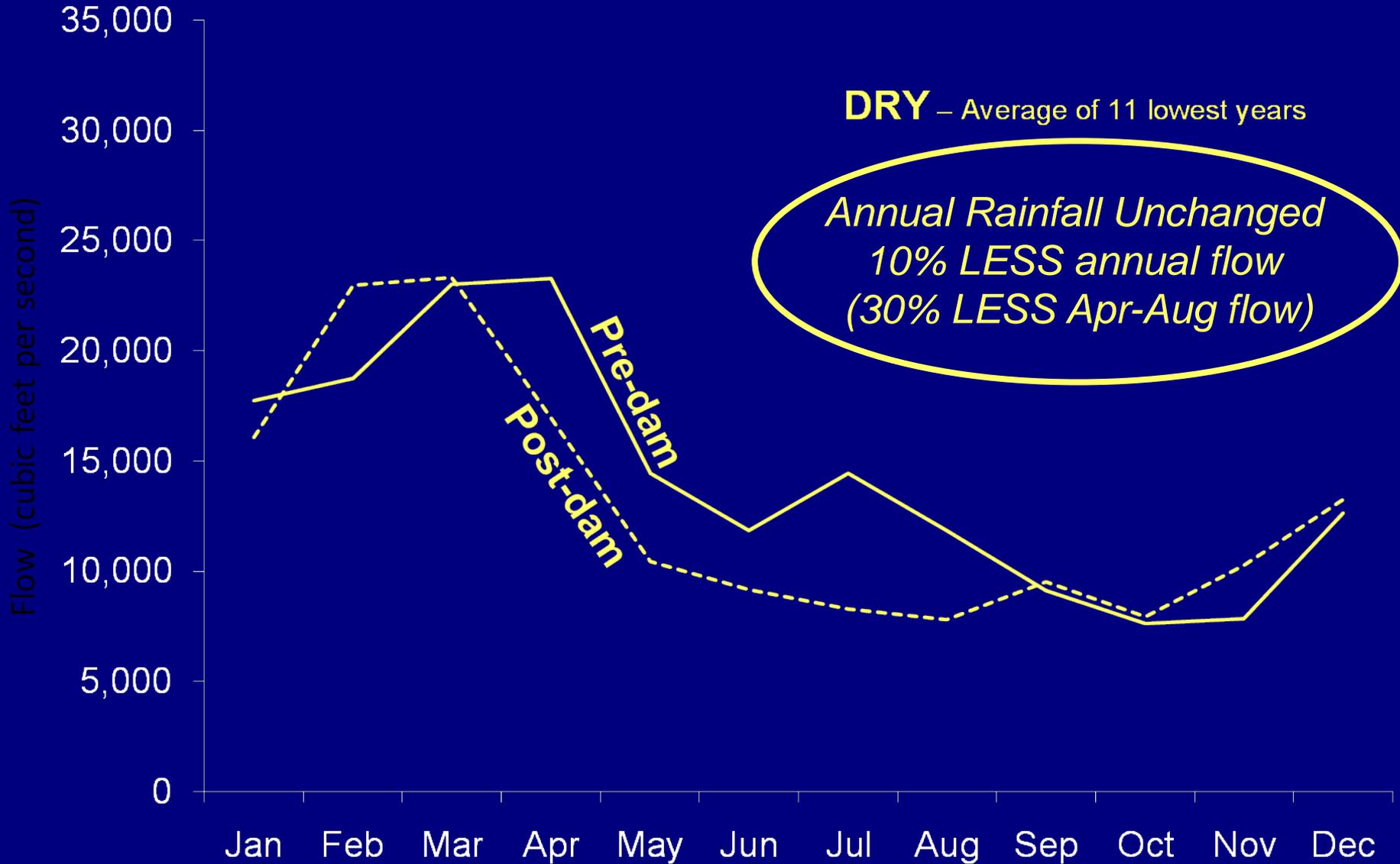


Pre-Dam Flows

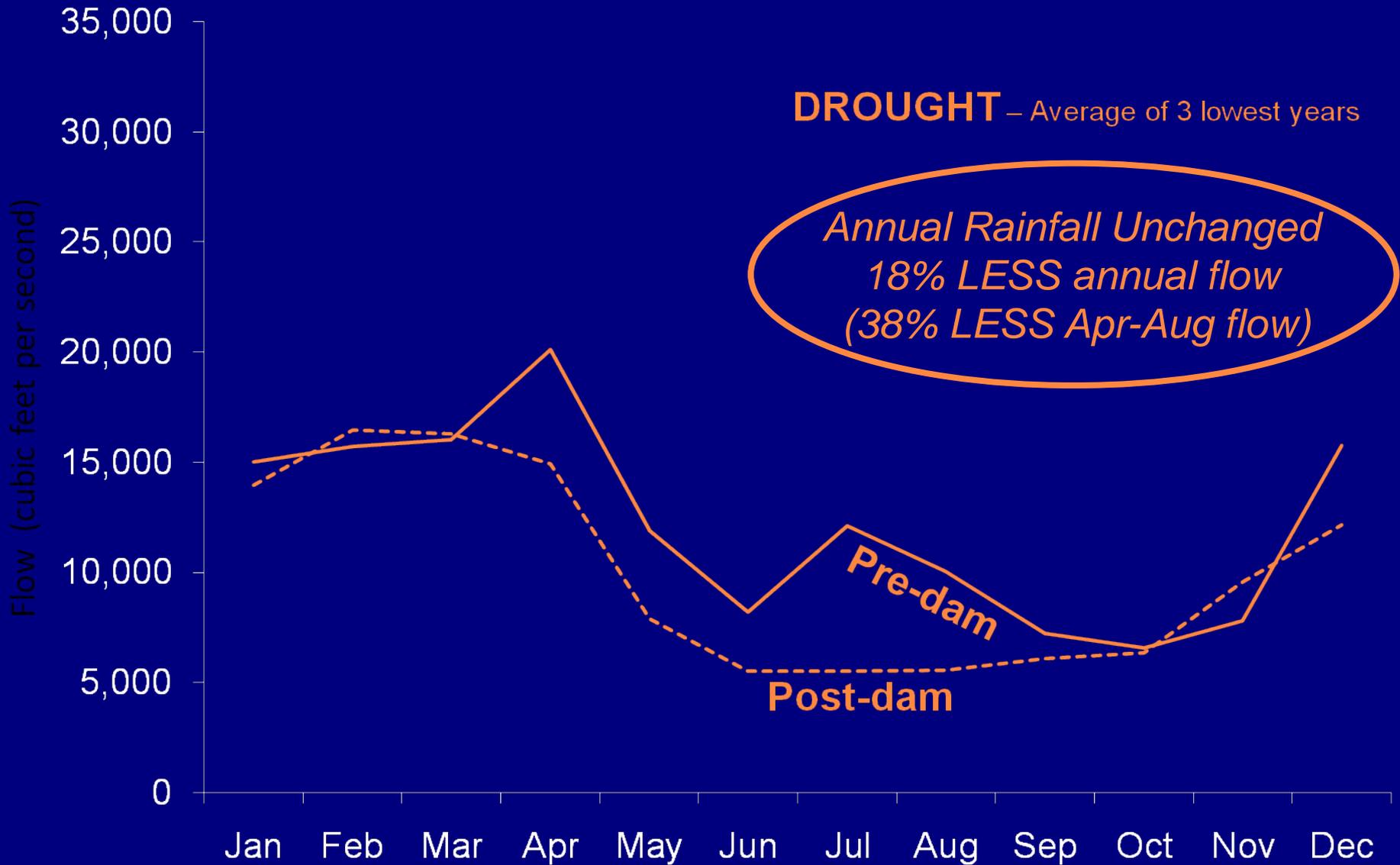
For Groups of Years Ranked by Average Annual Flow



Pre-Dam Vs Post-Dam



Pre-Dam Vs Post-Dam



BASELINE FLOWS

