



The Rhythm of Rivers: Why Flow Timing Matters for Ecosystems

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Agenda

1

California Water Setting

- Climate and Hydrology
- Water Challenges and Pressures
- Water monitoring indices

2

North Coast Case Study

- Water strategies to balance agriculture and biodiversity needs

3

Water Strategy for irrigation systems

- Water Budget
- Irrigation efficiency methods
- Best practices for improving Water conservation and quality
 - Cover Crops

The Rhythm of Rivers:

Imagine standing by a river
through the seasons



The Rhythm of Rivers:



This natural rhythm of high and low flows is:
the river's heartbeat – a pulse of water that sustain ecosystems.

The Rhythm of Rivers:

Imagine standing in front of
Yosemite Falls through the seasons



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WATER
QUANTITY
and
WATER
QUALITY



CLIMATE
CHANGE

Imagine the difference in the amount of
Yosemite runs through the seasons

The Rhythm of Rivers:

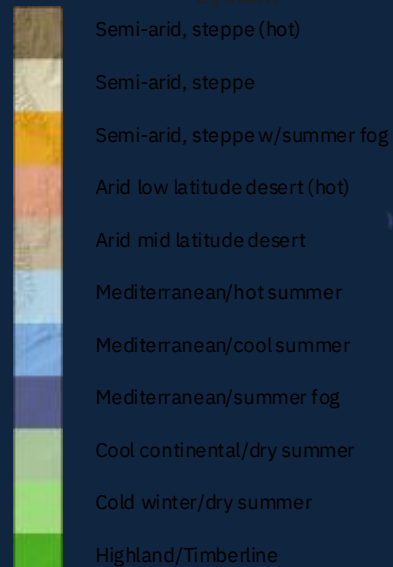
Imagine standing in front of Yosemite
Falls through the seasons

This natural *rhythm* of high and low flows is the river's heartbeat – a pulse of water that sustains life.



Yosemite Falls generally peaks in late spring (left), during the snowmelt pulse, and dries up in late summer (right), before fall storms arrive. *Photos by Greg Stock*

Climate

Modified Köppen Climate Classification
SystemSources:
California Climate Based on the Köppen Classification System
California Department of Fish and Game (2002a)The Köppen System used here is taken from Critchfield
(1983).

California Climate and Hydro Setting

Climate

CA climate has five major climate types:

- Mediterranean (wet winters and dry summers)
- Desert
- Cool Interior
- Highland
- Steppe