



# ECOLOGICAL CONSIDERATIONS FOR WATER TRANSFERS

A Presentation to the Delta Stewardship Council

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*24 September 2015*

**Sandi Matsumoto**

Associate Director, CA Water Program

The Nature Conservancy





## **FISH:**

Loss of flows and food for native fisheries



## **FEATHERS:**

Loss of habitat and food availability in the linchpin of the Pacific Flyway



## **FLOWS:**

Related stream depletions potentially impacting fish and flows for *decades*

>90%  
of historic wetlands  
destroyed



# CENTRAL VALLEY and DELTA

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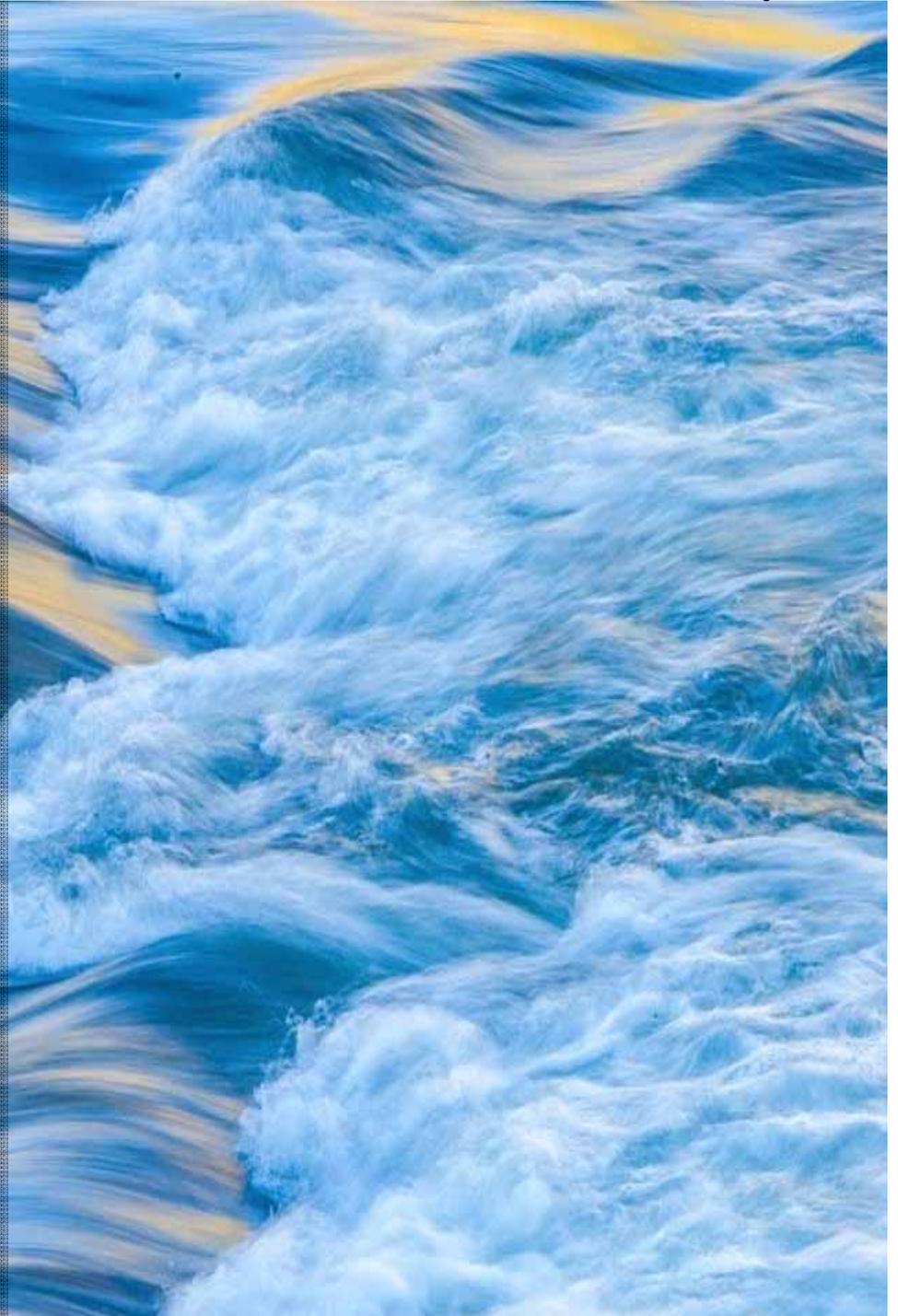
The linchpin of the Pacific Flyway



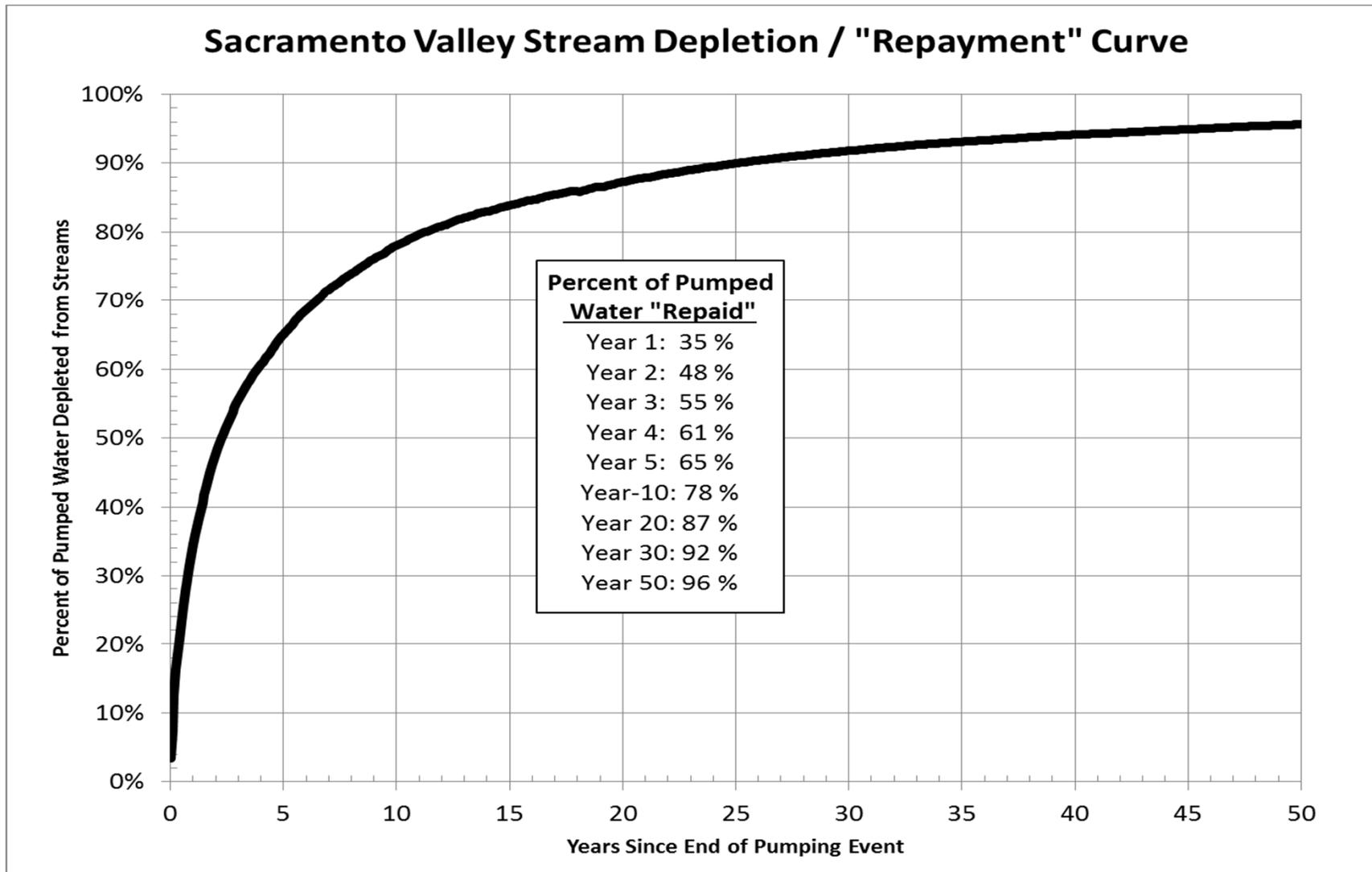
# our report: GROUNDWATER AND STREAM INTERACTION

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- Groundwater and surface water are interconnected
- Groundwater extraction impacts stream flows
- Rivers can transition from gaining streams to losing streams



# RECOVERY IS SLOW





# CONSIDERATIONS

## **Environmental impacts can be many:**

Fish, feathers and flows – we must consider these cumulative impacts

## **Our understanding is limited:**

We need to better understand and monitor consequences

## **Impacts can last decades:**

There is a lag between our decisions and impacts

