LA River Environmental Flows Study

Why Am I Here?

- State Water Board supports both:
  *Maximizing the use of recycled water
  *Protection of Beneficial Uses

- These two goals are in conflict on the LA River
  - Wastewater Change Petitions (1211 Order)
  - Protests

This is an issue in many effluent dominated waterbodies

What Are The Alternatives?

- Option A: Water Rights moves forward with petitions
  - May or may not be first come first serve
  - May be based on existing data
  - Will be conservative in terms of more water in the river

- Option B: Develop a more robust scientific foundation
  - Provides more flexibility
  - Los Angeles River case study

Proposed Path Forward

- Site specific study for the LA River
  - Collaborative project
  - Build on statewide framework

- If we move forward, what do I expect?
  - A study that will provide Water Rights what it needs
  - Technical products in 24 months

- State Water Board has committed $1.3 million and staff resources to advancing environmental flow science
  - Looking for a partnership to address LA River challenge
  - Additional funding necessary to move forward (≈$2 million)

California Environmental Flows Framework

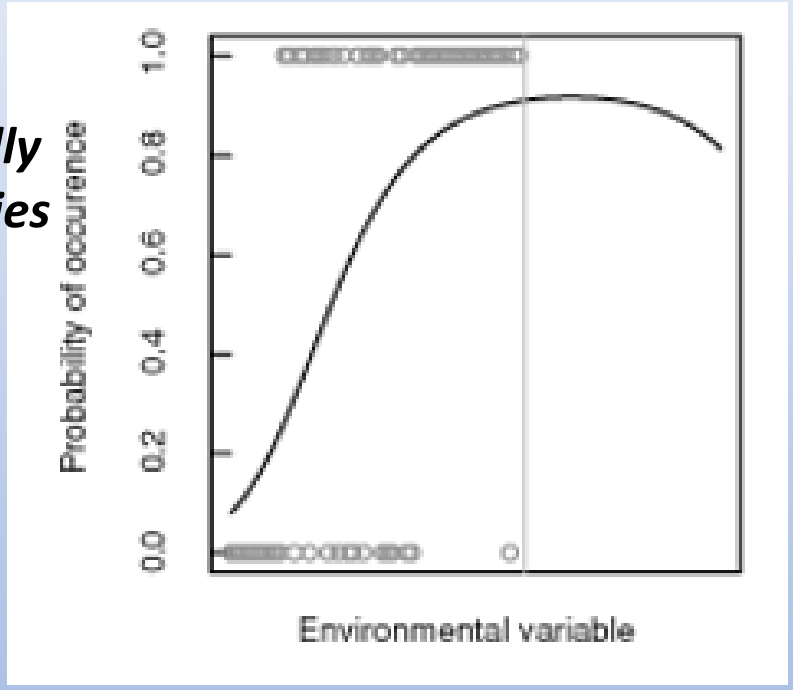
Tier 1: Statewide approach for setting coarse scale ecological flow criteria

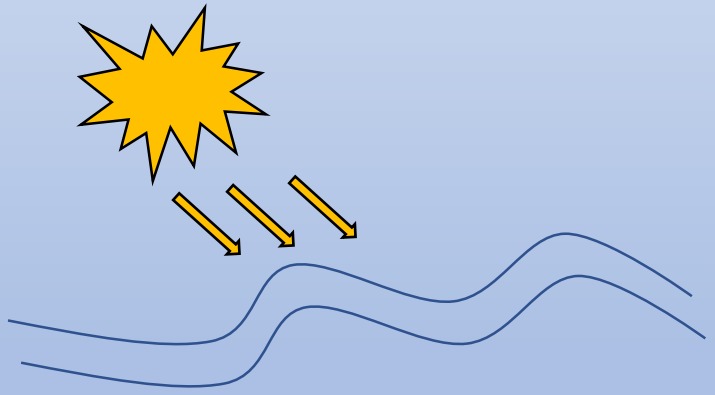
Tier 2: Regional and Site specific e-flows where necessary

Data sharing (open data) + information dissemination to the public

LA Regional Board Climate Change Effects Project

How will climate change induced alterations in streamflow and temperature affect key ecologically and recreationally important biological communities in the Los Angeles Region





Stream Temperature

Evaporation

Dry weather streamflow

Wet weather streamflow

Overall Objective

- Develop and implement an approach to balance reuse of treated wastewater with protecting beneficial uses affected by treated wastewater discharges
  - Support decision making under water code section 1211 – wastewater change petitions
  - Prototype for consideration of establishing environmental flows in urban (effluent dominated) systems
  - Case study for implementation of Tier 2 of statewide framework

Major Tasks

1. Identify and prioritize beneficial uses
2. Relate priority beneficial uses to assessment endpoints
3. Develop quantitative targets
4. Develop an allocation strategy
5. Develop a monitoring and adaptive management strategy

Key Technical Elements

- Develop conceptual models that relate change in flow to change in beneficial uses
- Conduct gap analysis
- Risk analysis of reduced flow on key ecological endpoints
- Tradeoff analysis of alternative & concurrent management actions
- Determine acceptable range of loss in beneficial uses
  - **STATE BOARD RESPONSIBILITY**

Outcomes/Products

- Evaluation of risks & benefits to key ecological endpoints associated with flow modification

- Set of acceptable ranges for flow/depth and wetted area to protect beneficial uses
  - Representative of all ecologically relevant flows

- Process of evaluating tradeoffs in management actions

These products will provide the information necessary for Division of Water Rights to develop a LA River Instream Flow Policy

Scope

- Focus on non-storm flows
- Surface water only
  - Groundwater as a boundary condition
- Mainstem LA River
  - Tillman discharge (Bull Creek) discharge to the estuary
  - Tributaries as a boundary condition
- Assume no change in urban runoff

Additional elements can be added as part of development of implementation strategy