



## Briefing on Merced River Watershed Management

### Introduction

The Department of Water Resources (DWR) Division of Planning staff is studying the potential for managed aquifer recharge using flood flows – known as Flood-MAR – in the Merced River watershed. The Merced River Basin Flood-MAR Reconnaissance Study is using a watershed vulnerability and adaptation assessment approach, first assessing vulnerabilities to climate change in flood, water supply, ecosystems, and groundwater sustainability. Next, performance of Flood-MAR and related adaptations will be evaluated with potential climate change futures. The study will describe and quantify potential public and private benefits associated with Flood-MAR strategies, including, among other things, flood risk reduction, aquifer replenishment, ecosystem enhancement, drought preparedness, subsidence mitigation, and climate adaptation.

### Background

There is interest across the state in understanding the benefits, limitations, concerns, costs, and funding opportunities for Flood-MAR projects, which can be implemented at multiple scales, from individual landowners diverting flood water with existing infrastructure, to using extensive detention/recharge areas and modernizing flood management infrastructure/operations. The Division of Planning has organized its Flood-MAR program around three types of work:

- **Conduct watershed-scale studies** – conduct headwater to groundwater, multi-sector, multi-benefit analyses that include climate change vulnerability assessment and evaluate adaptation strategies.
- **Support formulation of pilot projects** – provide technical assistance to local agencies and organizations to implement pilot projects that help fill information gaps and demonstrate the effectiveness of Flood-MAR projects.
- **Provide guidance on study & project implementation** – document, communicate, and exchange information on best practices, lessons learned, and remaining issues from the watershed-scale studies and pilot projects.

This agenda item advances Goal One of the Strategic Plan. Goal One directs the Commission to serve as a primary public forum for the discussion of improving water management policy to assist regions in achieving climate resiliency, advise the Department, and inform the Governor and Legislature on selected statewide issues, including those actions of the Water Resilience Portfolio assigned to the Commission. The Commission will promote the development of state

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policies to address economic and land use issues that will arise as the State moves toward more sustainable and resilient water management.

**Meeting Overview**

At the October meeting, Kamyar Guivetchi, Manager of DWR's Division of Planning, and David Arrate, Senior Water Resources Engineer, will present the work on the Merced River Basin Flood-MAR Reconnaissance Study to assess watershed-scale climate vulnerability and to explore the intersection of water supply, flood protection, and environmental water adaptation strategies in the Merced River Watershed.

This is an informational item.

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