

CVFPB Workshop Briefing Summary: Designated Floodway Program Modernization Update

July 14, 2023

Background

A Designated Floodway is defined as 1) the channel of the stream and that portion of the adjoining floodplain reasonably required to provide for the passage of a design flood, as indicated by floodway encroachment lines on an adopted map or 2) the floodway between existing levees as adopted by the board or the Legislature (23 CCR § 4). For the purposes of the workshop, we are mainly focusing on the review the existing design flood and the floodway encroachment lines.

Designated Floodways are developed and administered to reduce flood risk, protect lives and property, and manage encroachments into waterways. Encroachments, if not properly managed, can lead to reduced flood conveyance capacity and increased flood risk. The Designated Floodway program is a critical tool for the State of California to manage Central Valley streams and reduce flood hazards. However, the Central Valley Flood Protection Board (Board) has not updated Designated Floodway delineations since they were originally created in the 1970s and 1980s. The existing Designated Floodways are outdated, and in many cases inadequate, thereby negatively affecting the Board's ability to effectively meet the Designated Floodway program objectives. A Designated Floodway program modernization is needed for various reasons, as outline below.

- **River Movement.** Rivers have altered course and sometimes fall outside existing Designated Floodway delineations (see Figure 1). This can lead to unidentified encroachments and flood damages.
- **Population Growth and Urbanization.** Urban spaces are expanding into areas adjacent to Designated Floodways (see Figure 2). The lack of accurate Designated Floodway delineations to inform these urban expansions can lead to increased risk to life and property.
- **Standardization.** The existing Designated Floodways were created using inconsistent flood frequencies and methodologies, leading to varied levels of protection.
- **Climate Change and Hydrology Change.** Existing Designated Floodways do not account for the past 50 years of hydrologic record, nor projected changes in hydrology. More frequent, severe storms are expected in the future, compared to historic hydrology.
- **Flood Improvement Projects.** Levee modifications and other flood infrastructure improvements can impact the upstream and downstream extent of Designated Floodways. Significant changes to the SPFC are not accounted for in the existing Designated Floodways.
- **Improved Methods and Tools.** New models and data are available. These will allow for more efficiency and greater accuracy in managing Designated Floodways.

The Board is authorized to modify Designated Floodways (23 CCR § 106), using the considerations outlined in California Code of Regulations (23 CCR § 102). **The purpose of this workshop is to update the Board on the Designated Floodway Program modernization efforts and solicit input on topics that influence the scope and approach.**



Figure 1. Example of Sacramento River movement from 1985 (right) to 2021 (left), highlighted in orange.

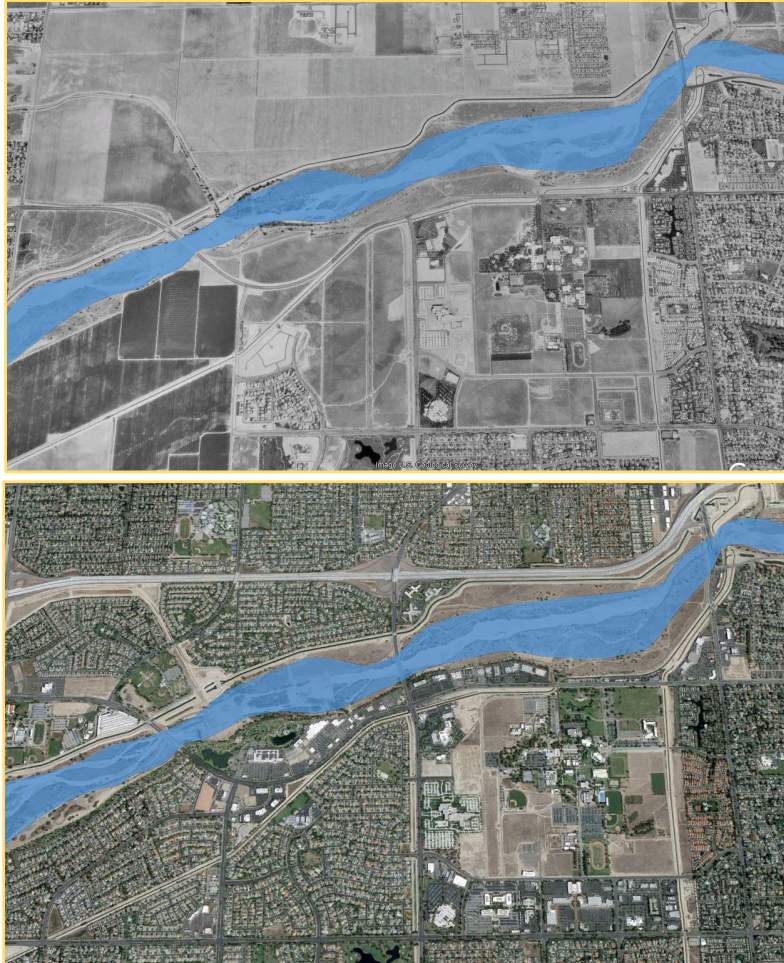


Figure 2. Development along the Kern River Near Bakersfield from 1994 (top) to 2020 (bottom).

Work to Date

The workshop will provide a brief update on work done to date in the efforts to modernize the Designated Floodway program. More specifically, work to date will cover:

- The assessment to evaluate the condition of the existing Designated Floodway delineations.
- The review and analysis of existing data and models to perform Designated Floodway delineation updates.
- Key takeaways from pilot analysis performed to evaluate the level of effort to perform Designated Floodway delineation updates.

Presentation Discussion

The workshop will focus on three topics: the scope of modernization, alignment with other State programs and initiatives, and subcommittee formation. The following sections provide a brief description of each topic.

Alignment with State Initiatives

The Designated Floodway program modernization aligns with numerous state and local initiatives. Broadly, Designated Floodway modernization mitigates flood risk, but it can have other benefits. Updating the Designated Floodway delineations will help manage our waterways, thereby safeguarding riparian habitat. Not only can this provide opportunities for ecosystem restoration, but it can also enable natural aquifer recharge. This low cost, nature-based solution can provide recreational opportunities and climate change resilience as well.

Designated Floodway program modernization will generate flood information that can be used by disadvantaged communities (DACs). Nearly 850 miles of Designated Floodways are adjacent to 95 DACs, several of which have experienced significant flooding in the past several years. With updated Designated Floodways, DACs and counties will have better tools to inform land use development, new flood patterns, and emergency response.

The workshop will explore how Designated Floodway modernization efforts can align with other state programs such as the Sustainable Groundwater Management Act (SGMA) and state initiatives outlined in the Governor's Water Resilience Portfolio (2021), and the Safeguarding California Plan (2018).

Scope of Modernization

There are various elements that can be implemented to advance the Designated Floodway modernization. These elements can be modeled on a spectrum that ranges in level of effort and complexity. The range will be explored with two bookend examples.

- 1) **Simplified.** This approach would only include updated hydraulic modeling using existing design flows.
- 2) **Comprehensive.** This approach includes an evaluation of analysis standards, hydrology, and explores potential uses of climate change data. This approach would also include a reassessment of other elements such as the permitting process, regulations, and CEQA permitting requirements related to Designated Floodway updates.

The workshop will include information to show that the comprehensive approach will result in more accurate delineations and better management practices. By integrating current terrain data, updated hydrology, and new models, Designated Floodways will better reflect the areas required to safely pass floods. The comprehensive approach will also help make permitting processes more efficient.

Subcommittee Formation

Modernizing the Designated Floodway program is a complex endeavor that requires legal, technical, and policy considerations. **Rather than reconvene the Board for every topic, this workshop will propose the formation of a subcommittee.** Ideally, the subcommittee will include one to two Board members, Board staff, Board legal counsel, and others to help develop recommendations for Designated Floodway Program modernization.