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**Item 5**  
**General Manager**  
Timothy R. Kerr, P.E.

November 9, 2018

Tom Buford  
Principal Planner  
Community Development Department  
300 Richards Boulevard  
Sacramento, CA 95811

Dear Mr. Buford:

Thank you for the opportunity to review and comment on the Two Rivers Trail (Phase II) Initial Study/Proposed Mitigated Negative Declaration. I also thank you for the City's outreach to the District throughout the planning process for this project. The City has gone to great lengths to adhere to the requirements of the American River Flood Control District's Recreational Trails Policy and has invested considerable time and resources into meeting this objective. The result is a trail proposal that preserves the integrity of the levee and protects the safety of the recreating public.

During the review period for the IS/MND, the District has been approached by residents asking if we support the proposed trail alignment detailed in the City document. I would like to clarify that the District supports the City's proposed alignment and also explain why we feel that this alignment is the best feasible alternative for public safety.

The District adopted its Recreational Trails Policy in 2002 to clarify how best to coordinate with recreational trail proposals being developed to interface with the urban levee system. Our policy indicated that the District supports recreational uses of the levee as long as flood control remained the primary purpose within the levee footprint. For that reason, the Policy states that trails are acceptable if, where feasible, they are located at the levee toe. This stipulation is to preserve the District's free access to the levee crown for levee operations and maintenance activity. No obstructions are allowed on a levee crown because that is the essential zone of access and travel for operations, maintenance, inspections, and flood fights.

The trail policy discourages recreational trails on the levee crown because of the potential threat to members of the public. The District's maintenance crews are out on the American River levees using heavy equipment every work day and 24/7 during periods of high water. Just as with a construction site where members of the public are separated from heavy equipment, so it is with levees. Members of the public who choose to recreate on levees need – for their own safety – to be separated from the District's operation of heavy equipment. It is for this reason that the District strongly supports the City's proposal to have the recreational trail physically separated from and located off of the levee crown in the River Park area.

It is because of this concern for the safety of the recreating public and our awareness of the high risk of dangerous collisions, the District's Recreational Trails Policy requires that where feasible, all trails must be off the levee crown roadway. The City's proposed trail alignment shown in the IS/MND adheres to this requirement and we thank you for making that a key criteria of your proposal.

The second major concern that has been presented to us from the public is the concern with the plan's proposal to construct a mid-slope bench in the waterside slope of the levee. The public is concerned that including such a mid-slope bench, with the associated retaining wall, will diminish the stability of the levee and so endanger public safety. While it is understandable that the public is concerned about levee stability, for the reasons discussed below, that concern is misplaced.

District staff worked early on in the formulation of this effort to help identify an alternate path for the trail, recognizing that there was insufficient space for the trail on the waterside toe of the levee. Of the numerous concepts envisioned, the mid-slope bench was the most feasible outcome that preserved the integrity of the levee section while keeping the crown free from being obstructed. This is made possible by two factors: the precise inclusion of a retaining wall in the levee slope and the fact that the levee in River Park has excess freeboard.

Freeboard is the measure of extra levee height required above the water surface for a design flood event. This is necessary to serve as a buffer to withstand erosion from wind and waves in a flood event as well as to accommodate for the risk and uncertainty introduced from changing soil conditions over time. Excess freeboard means even more height exists than what is required by the US Army Corps of Engineers. It is our understanding that the levee in River Park has approximately 5-feet of freeboard above the design water surface and the Corps of Engineers only requires 3-feet. This leaves a section of fill within the current levee cross section that could be made available to locate the mid-slope bench without impinging on the section for necessary flood control.

Retaining walls are allowed by the US Army Corps of Engineers to be implemented in federal levees as long as the designs comply with Engineering Manual 1110-2-1913, Design and Construction of Levees. This technical guidance governs the design considerations that must be followed to install any feature in a federal levee. The designs developed for the Two Rivers Trail will be required to meet all State and Federal engineering requirements for levees to ensure that there is no reduction in integrity from the necessary level of flood protection. State levee requirements that must be met will include both Title 23 and the Urban Levee Design Criteria, which was adopted to ensure a 200-yr level of flood protection for urban populations. It is a common engineering expectation that retaining walls can be designed to improve the slope stability of an earthen embankment. The development of the City's Two Rivers Trail is a great example of where that is possible.

In short, creating a mid-slope bench with a retaining wall will not impair the structural integrity of the levee. If properly designed in compliance with all applicable state and federal standards, the levee will be stronger with those design elements and will fully meet the most stringent standards to protect the public from flooding. The US Army Corps of Engineers, which supervises the construction and operation/maintenance of levees, will make sure that the proposed project is properly designed and constructed.

Once again, thank you for the opportunity to review and comment on the IS/MND for the Two Rivers Trail Phase II Project. The District supports the current proposal and applauds the City's team for developing a plan that complies with the District's Recreational Trails Policy. We feel this is the best way to provide a recreation trail and protect public safety.

Please feel welcome to contact me if you require any additional information at (916) 929-4006 or by e-mail at [tkerr@arfed.org](mailto:tkerr@arfed.org).

Sincerely,

Tim Kerr  
General Manager