

5.2.4 Yokohl Creek Recharge

The following describes the Yokohl Creek Recharge Project, which will capture available surface water and recharge the aquifer through the creek bed. Eventually it may also facilitate in-lieu recharge through decreased use of groundwater wells by using the floodwater for irrigation. The length of Yokohl Creek expected to be used for recharge is shown in **Figure 5-4**.

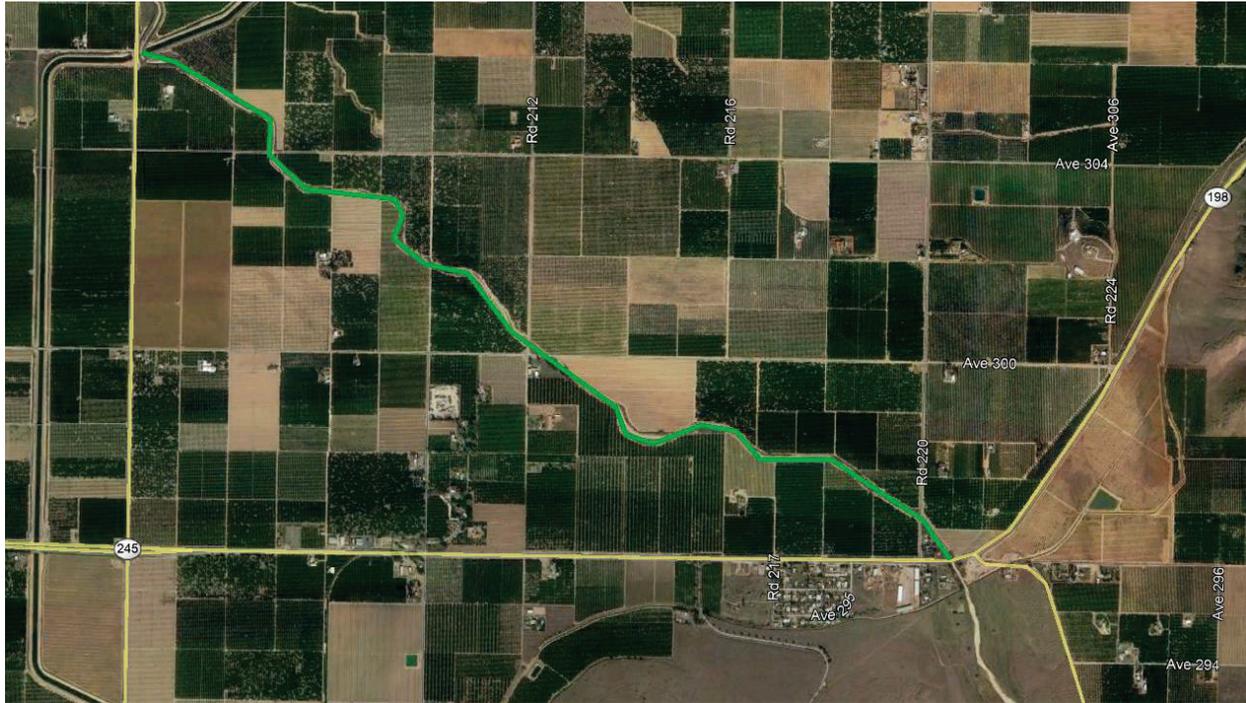


Figure 5-4 Yokohl Creek Alignment within EKGSA

Project Title:	Yokohl Creek Recharge	Project ID: EK3
Project Type	Recharge (delivery to existing channel)	
Project Location	Intersection of Yokohl Creek and Friant-Kern Canal to intersection of Yokohl Creek and HWY 198. North-Northeast of Exeter – T18S R26E and T18S R27E.	
Implementing Agency	Exeter Irrigation District (EID)	
Project Description - 354.44(a)	The Yokohl Creek Recharge Project will utilize existing EID turnout(s) to deliver CVP water supplies, when available, and recharge the underlying aquifer via the Yokohl Creek channel. The total length of the portion of the creek acting as a recharge facility will be nearly 3 miles.	

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Measurable Objective(s) Addressed - 354.44(b)(1)			
<p>The project will primarily help stabilize groundwater levels and increase the amount of groundwater in storage. Indirectly there could be secondary benefits of some groundwater quality improvement from high quality surface water, and reduction in land subsidence.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input checked="" type="checkbox"/> Chronic Lowering of Groundwater Levels <input type="checkbox"/> Seawater Intrusion – <i>not applicable</i> <input checked="" type="checkbox"/> Land Subsidence </td> <td style="width: 50%; vertical-align: top;"> <input checked="" type="checkbox"/> Reduction of Groundwater Storage <input checked="" type="checkbox"/> Degraded Water Quality <input checked="" type="checkbox"/> Depletion of Interconnected Surface Water </td> </tr> </table>		<input checked="" type="checkbox"/> Chronic Lowering of Groundwater Levels <input type="checkbox"/> Seawater Intrusion – <i>not applicable</i> <input checked="" type="checkbox"/> Land Subsidence	<input checked="" type="checkbox"/> Reduction of Groundwater Storage <input checked="" type="checkbox"/> Degraded Water Quality <input checked="" type="checkbox"/> Depletion of Interconnected Surface Water
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Circumstances and Criteria for Implementation - 354.44(b)(1)(A)			
<p>The EID system has existing connections to Yokohl Creek; however, this project is still in the conceptual stage and no feasibility study work has begun. Infiltration is expected based on general knowledge of the soil characteristics in the immediate project area. Initially, the EKGSA and EID would utilize these existing connections and, pending recharge results, construction to expand the delivery capacity can be considered in the future. This is a high priority project because it utilizes a readily available recharge area to address several of the measurable objectives. It is an integral piece of the EKGSA's overall effort to reach sustainability and will potentially be implemented in 2020.</p>			
Process to Provide Notice of Implementation - 354.44(b)(1)(B)			
<p>The EKGSA will have ongoing efforts to engage stakeholders and the general public in the sustainability process, communicating the statutory requirement, the objectives of the GSP, and progress toward each identified measurable objective. Neighboring landowners will be notified about the project prior to implementation and environmental documents will be available for public review.</p>			
Estimated Annual Project Benefits (AF/yr) - 354.44(b)(2)			
<p>The actual recharge rate of the proposed project will be determined by the on-site soils. The project is expected to recharge approximately 1,800 acre-feet per year, on average. This is based on an anticipated delivery capacity of 60 AF/day and 30 days of CVP water available per year.</p>			
Permitting and Regulatory Requirements - 354.44(b)(3)			
<p>The project shall complete all necessary permitting and regulatory requirements. The project will utilize CVP water for groundwater recharge.</p>			
Project Schedule - 354.44(b)(4) Anticipated Start & Completion, Timeframe to accrue benefits			
<p>No project schedule has been determined, however, given the existing facilities in place, this project could be implemented in 2020.</p>			
Evaluation of Benefits - 354.44(b)(5)			
<p>The volume of water delivered for recharge will be measured daily and summarized monthly by EID. The rate of accrual of benefits will depend on the frequency of water availability and the percolation capacity of the soil. The water level of groundwater wells in the area will be measured and water quality in the vicinity of the project will be monitored. This data will be used to determine project impacts and benefits.</p>			
How will project be accomplished, and what is the water source? - 354.44(b)(6)			
<p>The project will be accomplished by EID with the support of EKGSA. The water source will be CVP water.</p>			

Project Title: Yokohl Creek Recharge	Project ID: EK3
Legal Authority - 354.44(b)(7)	
EID has the legal authority to deliver CVP water to the creek for recharge since Yokohl Creek is within its boundary.	
Project Cost - 354.44(b)(8) Estimated Capital Cost Estimated annual cost/AF	
The estimated project capital cost, for potential capacity enhancement, is approximately \$135,000 and the annual cost over a 20-year return period is estimated to be \$5 to \$10/AF, including operational and capital costs.	
Funding Source - 354.44(b)(8)	
The funding source will likely be a combination of grant funding, EID, and/or EKGSA.	
Management of Groundwater Extractions and Recharge - 354.44(b)(9)	
The project would be managed by EID under the oversight of the EKGSA. Recharge volumes will be measured and reported by EID. Groundwater extraction will be by landowners in the area within EID and the EKGSA area. Performance of the project would be a necessary part of the EKGSA's reporting requirements as well as evaluations of measurable objectives.	
Level of Uncertainty - 354.44(d)	
The level of uncertainty primarily involves permeability of the intended recharge area, and frequency of CVP water available for recharge. The overall level of uncertainty is moderate for the volume of recharge water indicated.	