

### 5.2.7 Lindmore/Exeter Dry Wells

The following describes the Lindmore/Exeter Dry Wells Project, which will capture and recharge water in above average years when surface water is available to help achieve sustainability in the EKGSA. The general project layout is shown in **Figure 5-6**.

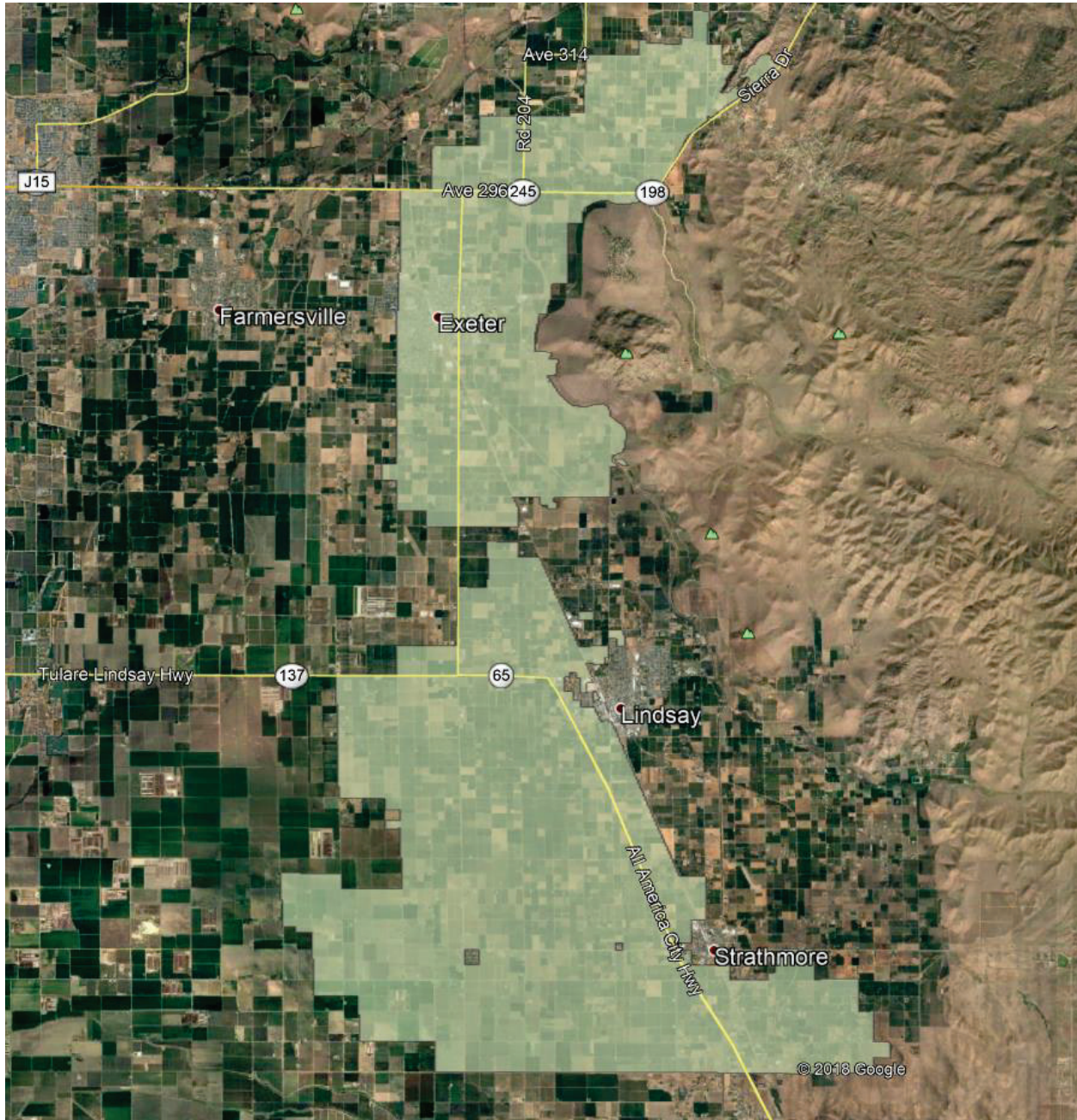


Figure 5-6 Exeter ID and Lindmore ID Boundaries

Project Title: Lindmore/Exeter Dry Wells	Project ID: EK5		
Project Type			
Recharge (dry well)			
Project Location			
<p>The intent of the dry well projects is to spread multiple wells throughout the Exeter and Lindmore Irrigation Districts to provide recharge throughout the area with a smaller project footprint. Specific locations have not been selected, as they will require coordination with landowners within the two districts. The intent will be to place them near access to surface water connection (i.e. District distribution system) to develop widespread recharge.</p>			
Implementing Agency			
Lindmore ID & Exeter ID			
Project Description - 354.44(a)			
<p>The Lindmore/Exeter Dry Wells Project is still largely conceptual in nature and will entail the Irrigation Districts constructing multiple series of interconnected dry wells that could be used to achieve groundwater recharge when CVP supplies are available to the Districts. The dry well would be a standpipe filled with gravel that would allow water to infiltrate below the soil surface. The size and depth of the dry wells would be site dependent. The dry well recharge system would likely be the recharge method in areas where surface soils are not conducive to recharge and it is necessary to deliver water for recharge below shallow clay layers in the soil, or if recharge in an existing basin would be enhanced by delivering water deeper into the soil profile.</p>			
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 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 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 type="checkbox"/> Depletion of Interconnected Surface Water
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Circumstances and Criteria for Implementation - 354.44(b)(1)(A)			
<p>The project is in the conceptual stage and no feasibility study work has begun. Successful pilot projects must be conducted before significant implementation would occur. If proven feasible, the EKGSA and Districts would develop a program that could be implemented on a larger scale. This is a medium priority project because, while many dry wells are expected to be constructed, there are interim steps to be taken prior to large scale implementation. This project will be implemented after successful pilot projects demonstrate effectiveness and funding options are known.</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. The EKGSA will provide information about the pilot program as part of SGMA outreach and education and will notify landowners about development of the program. Landowners that can and wish to participate will coordinate water delivery through their local agency.</p>			
Estimated Annual Project Benefits (AF/yr) - 354.44(b)(2)			
<p>The number of dry wells that will be constructed for this project is unknown at this time, but an estimate of 150 dry wells could be implemented with an average recharge rate of approximately 0.5 AF/day. Based on the typical availability of CVP supplies, this would equate to an estimated average annual recharge</p>			

<b>Project Title:</b> Lindmore/Exeter Dry Wells	<b>Project ID:</b> EK5
<p>volume of approximately 2,000 AF/yr. The recharge rate would be highly dependent on the size and depth of the dry wells and the infiltrating soil type.</p>	
<p><b>Permitting and Regulatory Requirements - 354.44(b)(3)</b></p> <p>Permits may need to be obtained from the County and/or the Regional Water Quality Control Board (RWQCB) depending on the size and depth of the dry wells. The recharge program still needs to be established by the EKGSA, and the program will likely need to go through CEQA compliance prior to implementation. The recharge program would have oversight by the EKGSA to assure proper water accounting and evaluate on-going impact (positive or negative) on groundwater quality.</p>	
<p><b>Project Schedule - 354.44(b)(4) Anticipated Start &amp; Completion, Timeframe to accrue benefits</b></p> <p>No project schedule has been determined. It is anticipated that development of the recharge program would occur early on during the first 5 years of GSP implementation, and significant implementation and use of the wells may occur by the end of the first 5 years.</p>	
<p><b>Evaluation of Benefits - 354.44(b)(5)</b></p> <p>The volume of water delivered for recharge will be measured daily and summarized monthly by the local water delivery agency and/or landowner. The rate of accrual of benefits will depend on how many systems are installed, the recharge capacity of each, and the availability and frequency of high flow water.</p>	
<p><b>How will project be accomplished, and what is the water source? - 354.44(b)(6)</b></p> <p>The project will be accomplished by individual landowners that have fields that can access District supplies. The water source will be the District's CVP supplies.</p>	
<p><b>Legal Authority - 354.44(b)(7)</b></p> <p>The Districts have the legal authority to deliver CVP water to the landowner fields within their boundary. Once any necessary permits are obtained, there would be legal authority to construct a dry well.</p>	
<p><b>Project Cost - 354.44(b)(8) Estimated Capital Cost Estimated annual cost/AF</b></p> <p>The estimated project capital cost for constructing 150 wells is approximately \$2,500,000 and the annual cost over a 20-year return period is estimated to be \$70 to \$80/AF, including operation and capital costs.</p>	
<p><b>Funding Source - 354.44(b)(8)</b></p> <p>The funding source will likely be a combination of grant funding, LID, EID, and/or EKGSA.</p>	
<p><b>Management of Groundwater Extractions and Recharge - 354.44(b)(9)</b></p> <p>The project would be managed by the landowner and overlying district under the oversight of the EKGSA. Recharge volumes will be measured and reported by the District. Groundwater extraction will be by the landowner of the well. Performance of the project would be a necessary part of the EKGSA's reporting requirements as well as evaluations of measurable objectives.</p>	
<p><b>Level of Uncertainty - 354.44(d)</b></p> <p>The primary uncertainty involved with small recharge operations is the cost effectiveness. It is slightly decreased in this case due to economy of scale. The other chief uncertainty is the permitting process as this would be a newer recharge methodology in the area. The level of uncertainty for significant implementation is moderate.</p>	