

## Corcoran Irrigation District Projects List

Title:	Corcoran Irrigation District: Flood Capture and Basin Recharge and Storage Project	ID: Name
Project Type		
Conveyance, Storage and Recharge		
Project Location		
Center of Project Lat 36.14868, Long -119.56029.		
Implementing Agency		
Corcoran Irrigation District		
Description - 354.44(a)		
<p>The Corcoran Irrigation District Flood Capture and Basin Recharge and Storage Project is a project to increase conveyance capacity to maximize the unused intentional recharge capacity of existing ponds. The key component is to increase the size of the conveyance system utilizing additional unused but available flood flows for recharged. The increased flows will be recharged in an area with existing recharge capabilities that will also be modified to allow for increased percolation abilities in existing ponds. This recharge area historically has been underutilized due to conveyance restrictions. This project proposed to increase the flood delivery system from approximately 650 cfs to approximately 1,200 cfs creating an additional 550 cfs or 1,090 AF/day compared to existing conditions. This project proposes to recharge high quality surface water providing a direct benefit to the Disadvantaged Community of Corcoran and their nearby CID and City of Corcoran well field as well as urban users. The recharge area is located within 1.25 miles of the City of Corcoran's Well Field and will have a direct positive benefit. Data suggests that the recharge rate in this area is in the range of 0.25 to 0.35 ft per day. With the increase capacity water can be delivered to farm fields and flooded to improve soil characteristic.</p>		
Project Benefit Overview:		
<ol style="list-style-type: none"> <li>1. Address Impacts of Current and Future droughts and other water shortages. Using a flowrate of 550 cfs or 1,090 AF/day and an average runoff period of 15 days it is anticipated that this project would have an additional benefit of 16,350 AF in each above normal water year. Utilizing the total proposed diverted flow rate of 1,200 cfs or 2,380 AF/day, the project would yield 35,700 AF in each above normal water year, which can be recovered later.</li> <li>2. Decreases flood risk in and around the area of the City of Corcoran,</li> <li>3. Increases and enhances the beneficial uses of local water supplies,</li> <li>4. Increases sustainable yield for the entire Subbasin,</li> <li>5. Reduces groundwater extraction,</li> <li>6. Soil Health improvements and/or building organic matter, by On Farm Flooding of Fields, this technique is widely used in the Tulare Subbasin to improve soil characteristics,</li> <li>7. Provides and an increase of water supply reliability,</li> <li>8. Recharges the Upper and the Lower Aquifer benefiting the shallow and deep wells in the area.</li> </ol>		
Key Components of the Project		
<ol style="list-style-type: none"> <li>1. Reconstruct diversion structure at the head of the system</li> <li>2. Reconstruct the flow measurement structure</li> <li>3. Modify the existing canal system to a capacity of 1,200 cfs, with additional turnouts to deliver water to the ponds.</li> <li>4. Excavate ponds to receive additional water, for storage and recharge.</li> </ol>		

## Corcoran Irrigation District Projects List

<b>Title:</b>	<b>Corcoran Irrigation District: Flood Capture and Basin Recharge and Storage Project</b>	<b>ID: Name</b>
<b>Measurable Objective(s) Addressed - 354.44(b)(1)</b>		
<input checked="" type="checkbox"/> Chronic Lowering of Groundwater Levels <input checked="" type="checkbox"/> Reduction of Groundwater Storage <input type="checkbox"/> Seawater Intrusion – <i>not applicable</i> <input checked="" type="checkbox"/> Degraded Water Quality <input checked="" type="checkbox"/> Land Subsidence <input type="checkbox"/> Depletion of Interconnected Surface Water		
<b>Circumstances and Criteria for Implementation - 354.44(b)(1)(a)</b>		
This project will proceed when funds become available, either from grant funding or CID funds.		
<b>Process to Provide Notice of Implementation - 354.44(b)(1)(b)</b>		
Board action from the Corcoran Irrigation District (CID) Board of Directors will be needed. Notice will be presented to the board when funds become available.		
<b>Estimated Annual Project Benefits (AF/yr) - 354.44(b)(2)</b>		
It is estimated with water available every 4 years the Average Annual Project benefit could be 4,000 AF/yr.		
<b>Permitting and Regulatory Requirements - 354.44(b)(3)</b>		
The facilities and lands are owned or governed by CID with that said a permit from the California Department of Fish and Wildlife will be needed. A CEQA document will be prepared with CID being the lead agency.		
<b>Schedule - 354.44(b)(4) Anticipated Start &amp; Completion, Timeframe to accrue benefits</b>		
Start time will be as soon as funds are available from either grant funds or CID funds. The project is estimated to be completed within 3 years of funding. The benefits will accrue after completion of the project and within the first year of use.		
<b>Evaluation of Benefits - 354.44(b)(5)</b>		
A direct benefit to the groundwater levels and water quality in the upper aquifer will be within the first year of use. The benefit to the lower aquifer will happen in the following years through downward leakage of the Corcoran clay layer. There will be a reduction on well water during those periods.		
<b>How will this be accomplished, and what is the water source? - 354.44(b)(6)</b>		
During times when water is available, water will be diverted to the recharge and storage ponds. The sources will include entitlement, scheduled and flood water.		
<b>Legal Authority - 354.44(b)(7)</b>		
CID has legal authority and will be the lead Agency in the preparation of the CEQA document.		
<b>Cost - 354.44(b)(8) Estimated Capital Cost Estimated annual cost/AF</b>		
\$8,000,000		
<b>Funding Source - 354.44(b)(8)</b>		
Grant Assistance and Local Cost Share		
<b>Management of Groundwater Extractions and Recharge - 354.44(b)(9)</b>		

## Corcoran Irrigation District Projects List

Title:	Corcoran Irrigation District: Flood Capture and Basin Recharge and Storage Project	ID: Name
CID manages the extracted groundwater within their district boundaries. This project is expected to mitigate groundwater extraction in drier years by storing water underground and through in lieu irrigation use in wetter years reducing groundwater extraction in the subsequent years.		
Level of Uncertainty - 354.44(d)		
The design of the project will include uncertainty of available water by designing the system to handle larger flows in a smaller duration. With this project, larger flows can be captured, resulting in a larger benefit in wetter years.		

## Corcoran Irrigation District Projects List

<b>Title:</b>	<b>Corcoran Irrigation District-Flood Capture and On Farm Recharge Project</b>	<b>ID: Name</b>
<b>Project Type</b>		
Conveyance, Storage and Recharge		
<b>Project Location</b>		
Center of District		
<b>Implementing Agency</b>		
Corcoran Irrigation District (CID)		
<b>Description - 354.44(a)</b>		
<p>Flood water can be captured and recharged on acreage within the CID area on landowner lands, for pre-irrigation, storage and recharge to the upper and the lower aquifers. The project will recharge the upper aquifer benefiting the shallow wells in the area. And over time and through downward leakage the lower aquifer will be recharged, benefiting the deep wells, and slowing subsidence in the area. Up to 300 cfs can be diverted and used by the landowners within the CID boundary. Flooding of the fields also benefits the soil by reducing the disease in the soil. The proposed project includes the construction of a distribution system at the intersection of the Cross-Creek and the Cross-Creek West Branch. The project will tie into the CIDs Sweet and Main canals as well. The structure is proposed to have a capacity of up to 700 cfs, to allow for 400 cfs of control of flood water and 300 cfs to be diverted to be used by landowners within CID.</p>		
<b>Measurable Objective(s) Addressed - 354.44(b)(1)</b>		
<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Chronic Lowering of Groundwater Levels  <input type="checkbox"/> Seawater Intrusion – <i>not applicable</i>  <input checked="" type="checkbox"/> Land Subsidence         </div> <div> <input checked="" type="checkbox"/> Reduction of Groundwater Storage  <input type="checkbox"/> Degraded Water Quality  <input type="checkbox"/> Depletion of Interconnected Surface Water         </div> </div>		
<b>Circumstances and Criteria for Implementation - 354.44(b)(1)(a)</b>		
This project will proceed when funds become available, either from grant funding or CID funds.		
<b>Process to Provide Notice of Implementation - 354.44(b)(1)(b)</b>		
Board action from the Corcoran Irrigation District (CID) Board of Directors will be needed. Notice will be presented to the board when funds become available.		
<b>Estimated Annual Project Benefits (AF/yr) - 354.44(b)(2)</b>		
It is estimated with water available every 4 years the Average Annual Project benefit could be 2,200 AF/yr.		
<b>Permitting and Regulatory Requirements - 354.44(b)(3)</b>		
No permitting will be required. Written agreements between the landowners and CID will be needed.		
<b>Schedule - 354.44(b)(4) Anticipated Start &amp; Completion, Timeframe to accrue benefits</b>		
Start time will be as soon as funds are available. The project is estimated to be completed within 3 years of funding. The benefits will accrue after completion of the project and within the first year of use.		
<b>Evaluation of Benefits - 354.44(b)(5)</b>		

## Corcoran Irrigation District Projects List

Title:	Corcoran Irrigation District-Flood Capture and On Farm Recharge Project	ID: Name
A direct benefit to the groundwater levels and water quality in the upper aquifer will be within the first year of use. The benefit to the lower aquifer will happen the following years through downward leakage of the Corcoran clay layer.		
How will this be accomplished, and what is the water source? - 354.44(b)(6)		
During times when water is available, water will be diverted to the recharge and storage ponds. The sources will include entitlement, scheduled and flood water.		
Legal Authority - 354.44(b)(7)		
CID has legal authority and will be the lead Agency in the preparation of the CEQA document.		
Cost - 354.44(b)(8)      Estimated Capital Cost      Estimated annual cost/AF \$4,500,000		
Funding Source - 354.44(b)(8)		
Grant Assistance and Local Cost Share		
Management of Groundwater Extractions and Recharge - 354.44(b)(9)		
CID manages the extracted groundwater within their district boundaries. This project is expected to mitigate groundwater extraction in drier years by storing water underground and through in lieu irrigation use in wetter years reducing groundwater extraction in the subsequent years.		
Level of Uncertainty - 354.44(d)		
The design of the project will include uncertainty of available water by designing the system to handle larger flows in a smaller duration. With this project, larger flows can be captured, resulting in a larger benefit in wetter years.		

## Corcoran Irrigation District Projects List

<b>Title:</b>	<b>Corcoran Irrigation District-Aquifer Storage and Recovery (ASR)</b>	<b>ID: Name</b>
<b>Project Type</b>		
Recharge		
<b>Project Location</b>		
Various Locations within the District		
<b>Implementing Agency</b>		
Corcoran Irrigation District (CID)		
<b>Description - 354.44(a)</b>		
Scheduled and Flood water can be used to recharge the lower aquifer utilizing existing wells that are perforated below the Corcoran clay layers. It is assumed that wells can recharge the lower aquifer at flow rated equal to half the production rate of the well. An assumption of 1.5 cfs per well can recharge back into the lower aquifer. This project proposes to use 50 wells for 20 days. The benefit from this project would be 3,000 AF/yr.		
<b>Measurable Objective(s) Addressed - 354.44(b)(1)</b>		
<input checked="" type="checkbox"/> Chronic Lowering of Groundwater Levels <input checked="" type="checkbox"/> Reduction of Groundwater Storage <input type="checkbox"/> Seawater Intrusion – <i>not applicable</i> <input type="checkbox"/> Degraded Water Quality <input checked="" type="checkbox"/> Land Subsidence <input type="checkbox"/> Depletion of Interconnected Surface Water		
<b>Circumstances and Criteria for Implementation - 354.44(b)(1)(a)</b>		
This project will proceed when funds become available, either from grant funding or CID funds.		
<b>Process to Provide Notice of Implementation - 354.44(b)(1)(b)</b>		
Board action from the Corcoran Irrigation District (CID) Board of Directors will be needed. Notice will be presented to the board when funds become available.		
<b>Estimated Annual Project Benefits (AF/yr) - 354.44(b)(2)</b>		
It is estimated that water will be available every year. The Average Annual Project benefit could be approximately 3,000 AF/yr.		
<b>Permitting and Regulatory Requirements - 354.44(b)(3)</b>		
CalEPA will be the regulatory agency. Agreements between the landowner and CID will be needed.		
<b>Schedule - 354.44(b)(4) Anticipated Start &amp; Completion, Timeframe to accrue benefits</b>		
Start time will be as soon as funds are available. The project is estimated to be completed within 3 years of funding. The benefits will accrue after completion of the project and within the first year of use.		
<b>Evaluation of Benefits - 354.44(b)(5)</b>		
A direct benefit of the groundwater levels in the lower aquifer will be within the first year of use.		
<b>How will this be accomplished, and what is the water source? - 354.44(b)(6)</b>		
During times when water is available, water will be diverted to the recharge and storage ponds. The sources will include entitlement, scheduled and flood water.		
<b>Legal Authority - 354.44(b)(7)</b>		

## Corcoran Irrigation District Projects List

Title:		ID: Name
<b>Corcoran Irrigation District-Aquifer Storage and Recovery (ASR)</b>		
CID has legal authority and will be the lead Agency in the preparation of the CEQA document.		
Cost - 354.44 <b>(b)(8)</b>	Estimated Capital Cost	Estimated annual cost/AF
\$5,000,000		
Funding Source - 354.44 <b>(b)(8)</b>		
Grant assistance and Local Funds.		
Management of Groundwater Extractions and Recharge - 354.44 <b>(b)(9)</b>		
CID manages the extracted groundwater within their district boundaries. This project is expected to mitigate groundwater extraction in drier years by storing water underground and through in lieu irrigation use in wetter years reducing groundwater extraction in the subsequent years.		
Level of Uncertainty - 354.44 <b>(d)</b>		
There is uncertainty in the participation of landowners in the area.		

## Corcoran Irrigation District Projects List

<b>Title:</b>	<b>Corcoran Irrigation District-Modifications to existing Conveyance System</b>	<b>ID: Name</b>
<b>Project Type</b>		
Recharge, Storage and Conveyance		
<b>Project Location</b>		
Various Locations within the District		
<b>Implementing Agency</b>		
Corcoran Irrigation District (CID)		
<b>Description - 354.44(a)</b>		
This project proposes to modify existing conveyance systems within the CID boundary to supply water for recharge as well as storage. The goal is to have the capacity to divert water around the CID, to areas where the water can be used for On Farm Flood Capture, Aquifer Storage and Recovery, Above Ground Storage as well as irrigation when water is available and groundwater recharge. This project will increase the volume of water that can be captured and utilized within CID boundaries.		
<b>Measurable Objective(s) Addressed - 354.44(b)(1)</b>		
<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Chronic Lowering of Groundwater Levels  <input type="checkbox"/> Seawater Intrusion – <i>not applicable</i>  <input checked="" type="checkbox"/> Land Subsidence         </div> <div> <input checked="" type="checkbox"/> Reduction of Groundwater Storage  <input type="checkbox"/> Degraded Water Quality  <input type="checkbox"/> Depletion of Interconnected Surface Water         </div> </div>		
<b>Circumstances and Criteria for Implementation - 354.44(b)(1)(a)</b>		
This project will proceed when funds become available, either from grant funding or CID funds.		
<b>Process to Provide Notice of Implementation - 354.44(b)(1)(b)</b>		
Board action from the Corcoran Irrigation District (CID) Board of Directors will be needed. Notice will be presented to the board when funds become available.		
<b>Estimated Annual Project Benefits (AF/yr) - 354.44(b)(2)</b>		
It is estimated with water available every 3 years, the benefit would be 2,000 AF/yr.		
<b>Permitting and Regulatory Requirements - 354.44(b)(3)</b>		
No permits are required.		
<b>Schedule - 354.44(b)(4) Anticipated Start &amp; Completion, Timeframe to accrue benefits</b>		
Start time will be as soon as funds are available. The project is estimated to be completed within 3 years of funding. The benefits will accrue after completion of the project and within the first year of use.		
<b>Evaluation of Benefits - 354.44(b)(5)</b>		
A direct benefit of the groundwater levels in the upper aquifer will be within the first year of use. Benefit to the lower aquifer will in the following years through downward leakage and surface water use rather than pumping ground water.		
<b>How will this be accomplished, and what is the water source? - 354.44(b)(6)</b>		
During times when water is available, water will be diverted to the recharge and storage ponds. The sources will include entitlement, scheduled and flood water.		



## Corcoran Irrigation District Projects List

Title: Corcoran Irrigation District-Modifications to existing Conveyance System			ID: Name
Legal Authority - 354.44(b)(7) Corcoran Irrigation District has legal authority.			
Cost - 354.44(b)(8)	Estimated Capital Cost	Estimated annual cost/AF	
\$4,000,000			
Funding Source - 354.44(b)(8) Grant assistance and Local Funds.			
Management of Groundwater Extractions and Recharge - 354.44(b)(9) CID manages the extracted groundwater within their district boundaries. This project is expected to mitigate groundwater extraction in drier years by storing water underground and through in lieu irrigation use in wetter years reducing groundwater extraction in the subsequent years.			
Level of Uncertainty - 354.44(d) The design of the project will include uncertainty of available water.			

## Corcoran Irrigation District Projects List

<b>Title:</b>	<b>Corcoran Irrigation District-Reservoir Construction</b>	<b>ID: Name</b>
<b>Project Type</b>		
Storage and Recharge		
<b>Project Location</b>		
Center of Project Lat 36.14868, Long -119.56029.		
<b>Implementing Agency</b>		
Corcoran Irrigation District		
<b>Description - 354.44(a)</b>		
This project is proposed to construct new reservoirs within the Corcoran Irrigation District to store water in times when water is available as well as recharge in the area. It is proposed to construct 300 acres to 900 acres of additional ponds, capable of storing water six feet deep, for an annual average storage benefit in the range of 900 AF/yr to 1,800 AF/yr. This water would reduce the groundwater pumping demand, annually as well as in the following year.		
<b>Measurable Objective(s) Addressed - 354.44(b)(1)</b>		
<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Chronic Lowering of Groundwater Levels  <input type="checkbox"/> Seawater Intrusion – <i>not applicable</i>  <input checked="" type="checkbox"/> Land Subsidence         </div> <div> <input checked="" type="checkbox"/> Reduction of Groundwater Storage  <input type="checkbox"/> Degraded Water Quality  <input type="checkbox"/> Depletion of Interconnected Surface Water         </div> </div>		
<b>Circumstances and Criteria for Implementation - 354.44(b)(1)(a)</b>		
This project will proceed when funds become available, either from grant funding or CID funds.		
<b>Process to Provide Notice of Implementation - 354.44(b)(1)(b)</b>		
Board action from the Corcoran Irrigation District (CID) Board of Directors will be needed. Notice will be presented to the board when funds become available.		
<b>Estimated Annual Project Benefits (AF/yr) - 354.44(b)(2)</b>		
It is estimated with water available every 3 years, the benefit would be 2,000 AF/yr.		
<b>Permitting and Regulatory Requirements - 354.44(b)(3)</b>		
No permits are required.		
<b>Schedule - 354.44(b)(4) Anticipated Start &amp; Completion, Timeframe to accrue benefits</b>		
Start time will be as soon as funds are available. The project is estimated to be completed within 3 years of funding. The benefits will accrue after completion of the project and within the first year of use.		
<b>Evaluation of Benefits - 354.44(b)(5)</b>		
A direct benefit of the groundwater levels in the lower aquifer in the first year of use.		
<b>How will this be accomplished, and what is the water source? - 354.44(b)(6)</b>		
During times when water is available, water will be diverted to the recharge and storage ponds. The sources will include entitlement, scheduled and flood water.		
<b>Legal Authority - 354.44(b)(7)</b>		
Corcoran Irrigation District has legal authority.		
<b>Cost - 354.44(b)(8) Estimated Capital Cost Estimated annual cost/AF</b>		

## Corcoran Irrigation District Projects List

Title:	Corcoran Irrigation District-Reservoir Construction	ID: Name
\$7,000,000		
Funding Source - 354.44(b)(8)		
Grant assistance and Local Funds.		
Management of Groundwater Extractions and Recharge - 354.44(b)(9)		
CID manages the extracted groundwater within their district boundaries. This project is expected to mitigate supplies in drier years by storing water underground and through in lieu use in wetter years reducing groundwater extraction in the subsequent years.		
Level of Uncertainty - 354.44(d)		
The design of the project will include uncertainty of available water by designing the system to handle larger flows in a smaller duration.		

## Corcoran Irrigation District Projects List

<b>Title:</b>	Pipeline Conveyance	<b>ID:</b>	<b>Name</b>
<b>Project Type</b>			
Storage, Recharge and Conveyance Efficiency			
<b>Project Location</b>			
Center of Project Lat 36.14868, Long -119.56029.			
<b>Implementing Agency</b>			
Corcoran Irrigation District			
<b>Description - 354.44(a)</b>			
<p>This project is proposed to construct new pipelines and replace inefficient canal systems with large diameter pipelines. These pipelines will be used to convey water with a higher efficiency than gravity canal systems and are proposed to service a greater area within the district. The pipelines are proposed to have stand pipes. Water can be pumped into the standpipes and delivered with pressure to multiple areas. Because of the flat slopes in the area, and the use of the stand pipe, water can be delivered down-gradient and up-gradient, reaching a greater service area. The proposed project is estimated to add up to twenty miles of pipelines. The pipe diameters in the range of 24-inch to 60-inches. The underutilized lands are approximately 800 acres to 1,500 acres of lands where water can be stored and or infiltrated when water is available.</p>			
<b>Measurable Objective(s) Addressed - 354.44(b)(1)</b>			
<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Chronic Lowering of Groundwater Levels  <input type="checkbox"/> Seawater Intrusion – <i>not applicable</i>  <input checked="" type="checkbox"/> Land Subsidence         </div> <div> <input checked="" type="checkbox"/> Reduction of Groundwater Storage  <input type="checkbox"/> Degraded Water Quality  <input type="checkbox"/> Depletion of Interconnected Surface Water         </div> </div>			
<b>Circumstances and Criteria for Implementation - 354.44(b)(1)(a)</b>			
This project will proceed when funds become available, either from grant funding or CID funds.			
<b>Process to Provide Notice of Implementation - 354.44(b)(1)(b)</b>			
Board action from the Corcoran Irrigation District (CID) Board of Directors will be needed. Notice will be presented to the board when funds become available.			
<b>Estimated Annual Project Benefits (AF/yr) - 354.44(b)(2)</b>			
It is estimated with water available every year, the benefit would be an average of 3,000 AF/yr.			
<b>Permitting and Regulatory Requirements - 354.44(b)(3)</b>			
No permits are required.			
<b>Schedule - 354.44(b)(4) Anticipated Start &amp; Completion, Timeframe to accrue benefits</b>			
Start time will be as soon as funds are available. The project is estimated to be completed within 3 years of funding. The benefits will accrue after completion of the project and within the first year of use.			
<b>Evaluation of Benefits - 354.44(b)(5)</b>			
A direct benefit of the groundwater levels in the lower aquifer in the first year of use.			
<b>How will this be accomplished, and what is the water source? - 354.44(b)(6)</b>			
The sources will include entitlement, scheduled and flood water.			
<b>Legal Authority - 354.44(b)(7)</b>			

## Corcoran Irrigation District Projects List

Title:		ID:	Name
Pipeline Conveyance			
Corcoran Irrigation District has legal authority.			
Cost - 354.44(b)(8)	Estimated Capital Cost	Estimated annual cost/AF	
\$14,000,000			
Funding Source - 354.44(b)(8)			
Grant assistance and Local Funds.			
Management of Groundwater Extractions and Recharge - 354.44(b)(9)			
CID manages the extracted groundwater within their district boundaries. This project is expected reduce conveyance losses thus provide greater delivery to the field reducing groundwater extraction.			
Level of Uncertainty - 354.44(d)			
The design of the project will include uncertainty of available water by designing the system to handle larger flows in a smaller duration. The project would also lower the uncertainty of providing water to a greater service area.			