

## ATTACHMENT 6 – MONITORING, ASSESSMENT, AND PERFORMANCE MEASURES

Each of the projects submitted in this grant application is sponsored by an entity with exceptional experience in implementing projects of this type. This results in a community that is knowledgeable regarding measures of success for these projects and how to implement these projects for success. An outline of the project’s performance goals, outcomes, targets, indicators, and measurement tools and methods is included for each of the Upper Pit IRWMP’s projects, below. Upon funding award, these tables will be used to establish a monitoring plan specific to each project.

<b>Project A: Joint Leak Detection and Repair</b>	
Project Goals	<ul style="list-style-type: none"> <li>• Identify water leaks on 17-48% of the system</li> <li>• Prioritize identified leaks for repair</li> <li>• Repair prioritized leaks</li> </ul>
Desired Outcomes	<ul style="list-style-type: none"> <li>• Stretch regional water supply through the reduction of system water loss</li> <li>• The repair of prioritized (high-loss) leaks</li> </ul>
Targets	<ul style="list-style-type: none"> <li>• Reduce unaccounted water loss to 15% of water pumped by FRVCSD</li> <li>• Reduce unaccounted water loss to 12% of water pumped by Bieber and Burney water departments</li> </ul>
Performance Indicators	<ul style="list-style-type: none"> <li>• Percentage of system tested</li> <li>• Percentage of water pumped that is unbilled</li> </ul>
Measurement Tools and Methods	<ul style="list-style-type: none"> <li>• Records of leak detection efforts</li> <li>• Daily monitoring of pumped water</li> <li>• Monthly reading of system water meters</li> <li>• Monthly calculation of the difference between pumped water and billed water</li> </ul>

<b>Project B: McArthur Water Tank</b>	
Project Goals	<ul style="list-style-type: none"> <li>• Increase water storage capabilities for the McArthur water system</li> <li>• Reduce the need to pump water during the high demand periods and reduce electric rates</li> <li>• Reduce the need to have crews driving to monitor wells and tanks</li> <li>• Have adequate water pressure throughout the McArthur system</li> </ul>
Desired Outcomes	<ul style="list-style-type: none"> <li>• Maintain adequate pressure throughout the day</li> <li>• Monitor and operate wells remotely</li> <li>• Monitor tanks remotely</li> </ul>
Targets	<ul style="list-style-type: none"> <li>• Never fall below 12' of water in the tank (1/2 capacity)</li> <li>• Maintain 60 PSI or above throughout the day</li> </ul>
Performance Indicators	<ul style="list-style-type: none"> <li>• Tank water level</li> <li>• Pressure at outflow manifold of tank</li> <li>• System-wide pressure consistency</li> </ul>
Measurement Tools and Methods	<ul style="list-style-type: none"> <li>• The telemetry installed will automatically monitor both the pressure and the tank level throughout the day</li> <li>• Pressure will be measured throughout the system combined with other maintenance and any irregularities will be recorded by technicians and addressed as appropriate</li> </ul>

Project C: Bieber Water Tank	
Project Goals	<ul style="list-style-type: none"> <li>• Extend the life of the water tank and all appurtenances</li> <li>• Make the water tower safe for the maintenance crew and for the community</li> <li>• Decrease annual maintenance costs and time required</li> </ul>
Desired Outcomes	<ul style="list-style-type: none"> <li>• Extend life of tower by another 30 years</li> <li>• Increase water supply reliability</li> <li>• Consistent pressure throughout the water delivery system</li> </ul>
Targets	<ul style="list-style-type: none"> <li>• Low-to-no maintenance for 15 years</li> <li>• Consistent system pressure between 40 and 60 PSI, depending on time of day</li> <li>• Consistent fire flow availability</li> <li>• Water quality that consistently meet state standards</li> <li>• OSHA compliance for tank maintenance</li> </ul>
Performance Indicators	<ul style="list-style-type: none"> <li>• Annual maintenance costs</li> <li>• Consistently available fire flows</li> <li>• Pressure measurements</li> <li>• Water quality records consistently meet State standards</li> </ul>
Measurement Tools and Methods	<ul style="list-style-type: none"> <li>• Maintenance work records</li> <li>• Records of firefighting water use</li> <li>• Tracking customer calls regarding pressure problems</li> <li>• Periodic required testing of system water quality</li> </ul>